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REPORT ON THE HEALTH

OF THE

County Borough of Stockport

FOR THE

YEAR 1904,

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 :

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EXTRACT FROM THE ORDER OF THE LOCAL GOVERNMENT BOARD 23RD MARCH, 1891, RELATING TO THE DUTIES OF MEDICAL OFFICERS OF HEALTH.

(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 on 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. 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, 1904.

Chairman: Councillor Thomas Ellis.

Vice-Chairman: Councillor James Lomas.

THE MAYOR
(ALDERMAN GILES ATHERTON, J.P.).

ALDERMAN R. REDFERN; COUNCILLORS T. ALLCOCK, BALL, BARNETT,

J. BLACKSHAW, BREWSTER, R. JOHNSON, MASSEY, SHEPHERD,

SMEETH, STEPHENSON, AND WILKINSON.

Monday-Fixed Meetings.

January	4	April	11	July	4	1	October	10
,,	18	,,	25	,,	18		,,	24
February	1	May	9	August	1		November	21
,,	15	,,	23	,,	15			
	29	June	6	,,	29		December	5
March	14	,,	20	September	12		,,	19
,,	28			,,,	26			

AT 3 OCLOCK P.M.

HOSPITAL SUB-COMMITTEE, 1904.

Chairman: Councillor Thomas Ellis.

ALDERMAN R. REDFERN; COUNCILLORS T. ALLCOCK, BALL, BARNET,
BREWSTER, JAMES LOMAS, SMEETH, AND WILKINSON.

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 Inspectors			1	Mrs. M. E. Forster.
remaie cannary inspectors	•••	•••)	Miss K. M. Jones.*

DISTRICT INSPECTORS.

R. G. CHILD.

W. Etchells.*

G. Filkington.*

F. H. Williams * (Resigned Feb., 1904.)

G. Bottomley.*

Ambulance At	tendant	 	 	 	 	G. Webb.
Disinfector		 	 	 	 	J. RAYNER.

CLERKS.

H. BAILEY.

G. W. YATES.

W. B. Bennett (Office Boy).

^{*} 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,-

HAVE the honour to submit herewith my Fifth Annual Report on the health of your Borough, and in so doing I desire to direct your notice to a few of the principal matters dealt with therein.

I would first draw attention to an extract of both historical and sanitary interest from a book published in 1795 by Dr. J. Aikin, descriptive of the country round Manchester. I am indebted to the courtesy of Mr. L. Caldecutt, solicitor, of Knutsford, for the opportunity to reproduce this. The statistics show that in the year 1794 there were 600 burials in the old churchyard, and that this number comprised "nearly all the deaths in the town." The text goes on to say that "even upon the supposition of the year being an unbealthy one, this "would imply a population of about 15,000 persons." In other words a death-rate of 40 per 1,000 of the population was explained in those days by the statement that "the year was an unhealthy one!"

Turning to the statistical portion of the report, one finds that there has been an increase in the marriage-rate, a considerable fall in the birth-rate, and a very slight rise in the death-rate.

The incidence of zymotic disease has been again very heavy, and one can only be thankful that it has been mainly manifested in the occurrence of scarlet fever of a mild type. Infantile mortality—one of the greatest problems at present facing sanitary science—has once more been heavy, and the special causes of this receive due comment.

The departmental work has been thoroughly and well carried out, and your Council may be congratulated on possessing such a capable and hard-working staft.

I desire to record my best thanks to your Council, and particularly to my Committees, for the considerate manner in which every suggestion and recommendation of mine has been received; to my medical confreres in the town and neighbourhood for their kind co-operation in many matters; to my fellow-officials for a great deal of willing assistance, and to the whole of my staff, both at the office and the hospitals, for work loyally and willingly performed.

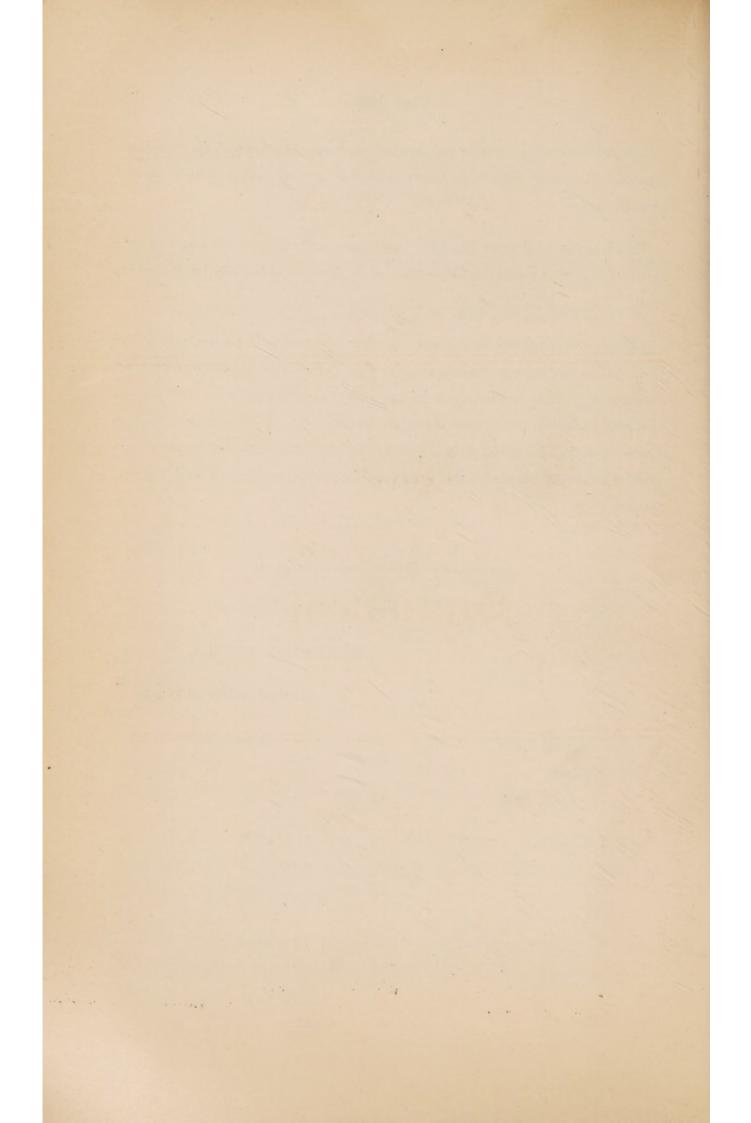
I am, Mr. Mayor and Gentlemen,

Your obedient servant,

MEREDITH YOUNG,

Medical Officer of Health

Public Health Office, Stockport, June, 1905.



PART I.

Statistical.

County Borough of Stockport.

1904.

STATISTICAL MEMORANDA.

Estimated Population, Mid-year, 1904	97,008
Area in Acres	5,485
Birth Rate per 1,000	26.45
General Death Rate per 1,000	21.59
Deaths of Infants under One year per 1,000	
Births	202.6
Death Rate from Seven Principal Zymotic	
Diseases	3.33
Death Rate from Phthisis (Pulmonary	
Consumption)	1.55
Death Rate from all other Tubercular	
Diseases	0.85

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 underlyng 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).

Stockport.

(Extract from a book by J. Aikin, M.D., published in 1795, and intituled "A Description of the Country from 30 to 40 miles Round Manchester).

This town, seated on the Lancashire border, was one of the eight baronies of Cheshire, and has a charter from its ancient lord, Robert de Stokeport, who granted an homestead and an acre of land to each of his burgesses, on the yearly payment of one shilling. The lordship, as well as the patronage of the rectory, is now in Sir George Warren, of Poynton. From its vicinity to Manchester, the distance being only seven miles, it has participated in a great degree in the flourishing state of the commerce of that town; so that it may now be reckoned the second town in Cheshire for consequence, and

probably superior to Chester itself in population. On this account we shall describe it with some minuteness.

The ground on which it stands is very irregular. The market place and parish church are seated on the summit of a hill, affording a level of considerable extent. This ground consists of a solid rock of soft free stone, with an extremely steep descent on the north, towards the Mersey but easy of access on the other sides. Part of the northern side is perpendicular for a height equal to that of the houses, of which a row encircles the base of the hill, having their backs to it, and concealing it from the view of passengers. Some of these houses have apartments hollowed out of the rock, and the appearance of the whole to one who surveys it closely is very singular. On the summit of the rock is an upper row of houses completely encircling the

market place, which is spacious and convenient From this central part the town stretches away in different directions, and by the late great increase of buildings has extended on every side into the country. Its particular objects we shall now describe.

Stockport contains two churches of the Establishment, four Dissenters' and one Quakers' meeting. The old or parish church of St. Mary is supposed to have been built 400 or 500 years since. It is a large pile of building, of a soft red free stone, similar to that of the rock on which the town stands, which by the force of the weather is so washed and worn, that it has been necessary lately to carry up an additional row of stone to support the steeple. This church has under it four chapels of ease; and by the improvements of the town and country the value of the living is so greatly increased as to be reckoned worth at least £1,200 per annum. The present rector is the Rev. Charles Prescott, an active magistrate, and very useful member of society. The parsonage house at which he resides is at the top of a hill ascending from the church, and is a large, handsome building in the midst of a garden. It overlooks the whole town and surrounding country, and enjoys a pleasing view of the windings of the Mersey at the bottom of the hill.

St. Peter's Church, consecrated in 1768, was built by Peter Wright, Esq., and endowed by him with £200 from several several estates in Cheshire. It stands on a hill on the west side of the town. The patronage is vested in Henry O. Wright, Esq., of Mottram-St.-Andrew. Both the churches are furnished with organs; the new church with a very fine one.

There is a Grammar School in Stockport, founded in 1487 by the Goldsmith's Company in London, and endowed by Edmund Shaw, citizen of London, with £10 per annum, which is since, by allowances from the town, advanced to £36. It is now filled by the Rev. Mr. Hoyle.

There are four bridges in and near the town. The old bridge crossing the Mersey on the Manchester road, called the Lancashire Bridge, has each end built upon rock, and stands very high above the water, a necessary circumstance in a river subject to such sudden and violent swells as the Mersey is in the upper parts of its course. Further to obviate the danger of inundations, it is supposed that the rock here has been cut deeper and wider, which is rendered probable by the marks of tools upon it. Directly from this bridge the road to Manchester rises up a steep and difficult ascent; but this inconvenience will be remedied in a new turnpike road now making, which will make a sweep round the hill. About half-a mile down the river is Brinksway Bridge, lately built on the Cheadle road. Up the river, a short distance from Lancashire Bridge, is Portwood Bridge, leading to Portwood, a new and thriving village on the Lancashire side of the Mersey; and one mile from Stockport, on the Mottram road, is the new bridge, built about forty years since, which is a noble structure, making a fine appearance from the river. It consists of a single arch 210 feet in width, 31 feet 7 inches high, and 16 feet thick. Near the old bridge is the very ancient town residence of the Ardens, now the property of John Arden, Esq. It is built of wood and plaister, and, being kept in good repair, has a venerable appearance.

Stockport is chiefly supplied with water in the old part of the town by open springs rising in Barnfields, which are considerably higher than the

market place; these are collected into a reservoir behind St. Peter's Church, and from thence carried by pipes to different parts of the town, as well as into the houses on the rocks in the market place.

We shall now say something on the progress of trade to which this town owes its flourishing condition.

In Stockport were erected the first mills for winding and throwing silk, on a plan procured from I aly; and the persons concerned in the silk factories were reckoned the principal people in the place; but on the decline of this trade the machinery was applied to cotton spinning, and the different branches of the cotton manufacture are now the chief staple of the town. The people of Stockport first engaged in the spinning of reeled weft, then in weaving checks, and lastly in fustians; and they were so ingenious as to attempt muslins, which were introduced about ten years since upon the invention of the machines called mules, whereby the thread was drawn finer The manufacturers here, with this and spun softer than that for weft. advantage, produced a species of flowered muslin with borders for aprons and handkerchiefs, by casting a coar e shoot for the figures, and trimming of the float by scissors neatly before bleaching; so that the figure was a good imitation of needlework. Weaving fustians has extended from thence over Cheadle, Gatley, and Northenden, where a few checks or furnitures had been woven before. The cotton trade at Stockport is now so considerable, that besides a large number of cotton spinning shops, there are twenty-three large cotton factories, four of them worked by steam engines. The making of hats is likewise a considerable branch of employment.

The weekly market of Stockport is on Friday. A great quantity of corn and oat meal are sold at it, and it is accounted the best market for cheese in the county. There are four yearly fairs, viz., two in March, one on May day and one on the 25th of October.

The police of the town is conducted by one residing justice of the peace, two constables, four churchwardens, and three overseers of the poor.

The population has of late years been amazingly on the increase, so that before the war, houses could not be built fast enough for the demand. The only documents we have for its present state are the following :-- In the year 1794, there were, at the old church, 149 marriages, 415 christenings, and 600 burials; the latter number is probably nearly that of all the deaths in the town; and, even upon the supposition of the year being an unhealthy one, would imply a population of about 15,000 persons. In the late assessment of men for the navy, Stockport raised twenty men, its rated houses being estimated at 1,358. We have before observed how difficult it is to establish a proportion between the taxed and excused houses; but from the manner in which Stockport is peopled, it is probable that the allowance for nonrated houses should be as high as in almost any manufacturing town perhaps an equality with the rated houses. Into this account are not taken the hamlets of Heaton Norris and Portwood on the Lancashire side of the river, of which the former is reckoned to contain 170 houses, the latter about 100. The extension of the town is very great, as well on the Macclesfield and Cheadle sides, as on the Manchester. The hill to the west, on which St. Peter's Church is built, is now almost covered with buildings.

A branch from the Manchester and Ashton canal, which is to come to the top of the high ground on the Lancashire side of the river, is nearly finished. Its use to such a populous and trading place cannot but be very great.

The land in the neighbourhood of Stockport is chiefly pasture, and in general very good, supplying the town plentifully with milk and butter. It lets, however, at a very high rate; and the land sold for building before the war brought such prices as were never known.

Very lately, a spring of mineral water, appearing to come from a coal mine or bed of icon stone, was discovered near the town. It was reported to be a cure for weak eyes, and was for a time frequented by great numbers of people, well and ill, some of whom drank the water. About this time the jaundice became very epidemical in and about Stockport, and this was by some imputed to the use of the mineral water; in consequence of which it came to be entirely neglected.

Between Stockport and the new bridge a very extensive cotton factory was lately erected at a large expense by Mr. Doxon. The water is brought to it from the Mersey above the new bridge by means of a subterraneous tunnel, and in summer it takes every drop of the water, to the great surprise of the traveller, who passes over a vast arch which seems thrown over a channel perfectly dry

The erection of this work has caused a number of dwelling-houses for the workmen to be built, which form a street on the road side.

Area, Population, Inhabited Houses, &c.

The area of the Borough is 5,485 acres. Prior to extension in 1901 the area was only 2,200 acres, so that by the Borough Extension scheme it was considerably more than doubled.

The population of the extended Borough estimated at the census of 1901 was 92,832 persons, of which 43,268 were males and 49,564 females, there being thus rather more than 114 females to every 100 males in the Borough.

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

In the following table the population at the various census enumerations from 1831 onwards, together with the estimated population for certain intercensal periods, are set out, and it may be seen from a perusal of this table that the Borough is making a steady increase in population and inhabited houses. The figures since the 1901 census are those of the Registrar-General, and are probably on the favourable side, it being generally agreed amongst statisticians that the method of the Registrar-General is apt to overstate the populations. This being the case it would be unwise to base observations or expectations upon the figures in question.

Year 1904.

Growth of Stockport.

Year.	Inhabited Houses.		ouses Building.	Population	Total Increase.	Total Decrease.	Increase per c mt.	Decrease per cent,
1831				43000				***
1841	8814	+1157		+50495	7495		17:43	
1851	10568			+53835	3340		6.61	
1861	11298			+54682	847		1.57	
1871				+58001		1681		3.07
1881	18007	‡ 155 8	74	+59553	6552		12.36	
1891	15573	±1216	100	+70268	10710		17.93	
1892				71000	737		1.04	
1893	16269	*870	170	71930	930		1.309	
1894	16397	*804	150	72770	840		1.16	
1895	16859	*876	100	78620	850		1.16	
1896	17190	*890	120	74480	860		1.16	
1897	17693	*613	197	75350	870		1.16	
1898	17888	*561		76220	870		1.15	
1899	18148	*600	197	77100	880		1.15	
1900	18320	*697	220	78000	900		1.16	
1901	117982	*753	†71	+78897	897		1.15	
1902	21872	*844	194	94422	15525		‡19·67	
1903	22158	*875	205	95709	1237		1.36	
1904	22684	*1007	300	97008	1299		1.35	

[†] Census Return.

 $^{^{\}circ}$ Not including lock-up shops, factories, and warehouses unoccupied at night, which number 900 to 1000 at the present time.

[;] Borough Extension.

According to the 1901 census the total tenements in Stockport were 18090. These tenements contained the following number of rooms:—

One room only	75	tenements.
Two rooms		,,
Three rooms	431	,,
Four rooms	8,777	,,

Total tenements with less than 5 rooms... 10,902

Ward Populations.

The following table sets out the populations, acreage, and persons per acre of the various Wards of the Borough:—

Ward.	Acreage.	Estimated Population	Persons per Acre.	Ward.	Acreage.	Estimated Population.	Persons per Acre.
Lancashire Hill	145	5116	35.28	Edgeley	331	7148	21.59
Heaton Lane	234	6338	27.08	Shaw Heath	392	7960	20.30
Old Road	114	5976	52.42	St. Thomas'	58	5618	106.0
Portwood	324 .	7440	22.96	Hemps'w Lane	146	5432	37.20
St. Mary's	91	3750	41.20	Cale Green	145	6696	46.18
Vernon	427	6103	14.29	Heaviley	1115	6878	6 17
Spring Bank	81	5002	61.75	Reddish North	786	5435	6.91
Hollywood	346	8843	24.11	Reddish South	755	3773	4.99
				Whole Boro'	5495	97008	17:68

I am indebted to the Borough Surveyor for the following information giving the number of **new houses built** in each ward during 1904:—

Name of Ward.	Number	of Houses.
Lancashire Hill		4
Heaton Lane		2
Old Road		il.

Name of Ward.	Number of Houses.
Portwood	18
St. Mary's	nil.
Vernon	22
Spring Bank	
Hollywood	
Edgeley	49
Shaw Heath	
St. Thomas'	
Hempshaw Lane	
Cale Green	14
Heaviley	
North Reddish	
South Reddish	
Total	370

Marriages.

The number of Marriages solemnized during 1904 was 811, or 100 more than in 1903, the marriage rate per 1,000 persons living being 16.7.

Year.	Number of Marriages.	Rate per 1000 Living.	Rate for England and Wales.
1893	486	18.5	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	758	19.3	16.0
1901	687	17.4	15.9
1902	808	17.1	15.8
1903	711	14.8	15.6
1904	811	16.7	

Births.

During the year 1904 there have been 2,566 births registered in the Borough, 1,277 of these being males, and 1,289 females. The birth-rate was equal to one of 26.45 per thousand per annum, a considerable drop on that of the previous year, and indeed lower than it has ever been during the past 22 years. The highest birth-rate recorded in any part of the Borough is that in Reddish South Ward, where it reached 31.54, Portwood coming next with a rate of 29.17. As usual, Cale Green and Heaviley Wards were the lowest with one single exception, namely, St. Mary's Ward, the rates in the three wards respectively being 20.91, 20.93, and 18.40 per thousand.

The birth-rate recorded in the 76 Great Towns of England and Wales during 1904 was 29.01 per thousand.

Towns with a smaller birth-rate than Stockport are as follows :-

Croydon	26.0	Handsworth (Staffordshire)	24.0
Hornsey		Bury	23.8
Hastings		Oldham	24.9
Brighton		Rochdale	22.8
Bournemouth		Blackburn	23.4
Reading		Huddersfield	23.7
Northampton		Halifax	20.0
Plymouth		Bradford	
Burton-on-Trent			

But a comparison with other towns of a fairly similar character would appear to indicate that the record of Stockport for 1904 is not an enviable one. In St. Helens we have a rate of 37.6 recorded, Wigan 35.0, Warrington 33.4, Salford 31.8, Preston 28.1, Hanley 33.7, and so forth.

There can be no question but that the steady diminution in the birth-rate of recent years involves the most serious social and national problems. The question would by no means be such a serious one but for the terrible waste of child life with which it is accompanied. In Stockport we have for many years a seriously diminishing birth-rate, whilst at the same time we have an alarming infant mortality which declines extremely slowly in spite of every measure which has been brought to bear upon it up to the Slightly more than one-fifth of the children born during 1904 never reached the anniversary of their birth into the world. These two things working together are bound, in spite of the most optimistic opinions, to exert a seriously retarding influence on the growth not only of the population of Stockport, but by being repeated in other centres, upon the population of the country as a whole, and upon the prosperity of the Empire, for there can be no question that the growth of the Empire has been largely favoured by the overflow to and settlement in the Colonies of the surplus sons and daughters of Britain.

In the Sixty-sixth Annual Report of the Registrar-General for England and Wales, which covers the year 1903, it is stated that in the United Kingdom

as well as in the 26 Colonies or foreign countries from which returns have been received, the birth-rate measured by the proportion to total population has shown a general tendency to decline during the past ten years, the only exception being the colony of Ceylon, where the rate, with slight fluctuations, rose from 30·2 in 1892 to 40·0 in 1903. The various differences to some extent might admit of explanation on the ground of variations in the sex and age constitutions of the populations, especially with regard to the proportion of women of conceptive age. In France the birth-rate has, with some slight fluctuations, steadily fallen from 26.7 per thousand of the population in 1872, to 21·1 in 1903; this is practically the lowest rate of any civilised country. A table is appended showing the average for various countries for the ten years 1893 to 1902, and for the year 1903:—

BIRTHS.

	Births to 1,000 living.				
	Average of				
	10 years,				
Country.	1893-1902.		1903.		
Russia (European)	48.6*		?		
Roumania	40.3		40.1		
Hungary	40.0		36.7		
Jamaica	39.1		39.9		
Austria	37.3		?		
Prussia	36.5		34.5		
German Empire	35.9		?		
Cevlon	35.8		40.0		
Chili	35.6		34.0		
Spain	34.8		36.4		
Italy	34.3		31.5		
The Netherlands	32.3		31.6		
Japan	30.4+		?		
Norway	30.2		28.7		
Denmark	30 0		28.7		
Queensland	30.0		24.6		
Scotland	29.9		29.2		
Tasmagia	29.6		?		
England & Wales	29.4		28.4		
New South Wales	29.1		25.3		
Belgium	28.9		27.5		
Western Australia	28.9		30.3		
Switzerland	28.3		27.7		
South Australia	27.9		23.4		
Victoria	27.1		24.5		
Sweden	27.0		25.6		
New Zealand	26.3		26.6		
Ireland	23.1		23.1		
France	22.0		21.1		

^{*} Average for 10 years, 1890-1899.

[†] Average for 10 years, 1892-1901.

The relation between our position as a nation in this matter and that of other countries has been well demonstrated by the well-known statistician, Mr. Holt Schooling.

Mr. Schooling, who is an artist in statistics, has taken the birth-rates for 1874-1878 in each European nation as the standard for that nation, and he compares with that standard the statistics for 1894-1898, computing from these two sets of figures what he terms the loss of birth-force during the 20 years' interval.

				1	The percentage
	The yearly		The yearly		of yearly loss
	birth force during		th-force durin		during 1894-
	1874-1878 taken a	is 189	4.1898 was on	ly	1898 was
Norway	100		96		4
Denmark			95		
Austria	100		95		
Italy			94		
Hungary			91		9
Germany			90		. 10
Switzerland	100		90		
Belgium	100		89		. 11
Holland	100		89		. 11
France	100		86		. 14
United Kingdom.	100		85		. 15
England & Wales			53		. 17

T at the decrease in the birth-rate does not depend upon a decrease in the marriage-rate may be shown by a glance at the following table which is a perfectly fair one to use, although the five-yearly periods do not exactly tally.

Persons Married to 100 living in United Kingdom.

1876-1880	14.2
1881-1885	14.1
1886-1890	13.8
1891-1895	14.3
1896-1900	15.2

It is obvious that the decline is due to a lessened number of children per marriage. The postponement of marriage to a later age period is not, according to the best statisticians, the cause of the decline in the birth-rate.

For the foregoing figures and many of those which follow, I am indebted to an excellent address delivered by Protessor Taylor, lecturer on Gynae-cology, &c., in the University of Birmingham, a gentleman who views the decline in the birth-rate in a most serious manner, both from the standpoint of the nation and of the individual. To look for a moment at what one may term the imperial side of the question, one finds that there has been a steady decline in the birth-rate of the country during the last thirty years, as witness the following figures:—

Table showing decline in the birth-rate since 1874 in five-yearly periods :-

Years.	Birth rate per thousand persons living.	
1874-1878 1879-1883 1884-1888 1889-1893 1894-1898	32·6 31·2 29·8	Great Britain and Ireland.
1899 1900 1901 1902 1903 1904	28·9 28·5 28·6 28·4	England and Wales.

Now compare this with other countries Putting France out of the question, one sees that though there has been a decline in these other nations, their condition in this respect is far superior to ours.

BIRTH-RATES PER THOUSAND PERSONS LIVING.

	Austria.	(Jerman	y.	Italy.	eat Brit d Irelan	France.
1874 1878	39.4		40.1		37 0	 34.3	 25.8
1879-1883	38.4		37 5		36.8	 32.6	 24.8
1884-1888	38-1		36.9		38.2	 31.2	 23 9
1889-1893	37.1		36.3		36 9	 298	 22.5
1894-1898	37.3		56.1		34.9	 29.1	 22.3

The question most frequently asked by the opponents of a high or perhaps one might say the defenders of a low birth rate is, "Are not two or three children properly clothed, fed, educated, and trained likely to develop into strong r and better men and women than eight or ten less advantageously brought up? Will this not result in a betterment of the type?" There is something to be said for this view. At the same time if we look at the criminal statistics of the country, though we notice a general and pretty steady reduction in the gross number, there is not to be found a corresponding diminution in juvenile criminality. August Brahms, in his work on "The Criminal," says, "Juvenile criminalism is on the increase; 40 per cent. of the convictions in England every year are against young persons under 21 years of age " To-day child criminality is nearly double that of adults, although minors from 7 to 16 years of age only represent seven millions as against adults more than 20 millions. Suicides amongst young people are on the increase. In France the national moral average is steadily decreasing, the consumption of alcohol has trebled, and suicides have gone up from 112 per million in 1880 to 205 (nearly double) in 1885. Again, the lunacy statistics of Englard and Wales show a steady proportionate increase of lunatics and idiots during the past few years. In 1869 there were 23.93 lunatics, idiots, and persons of unsound mind per 10,000 of the population; in 1875 this figure had reached 27.54, in 1889 29.65, in 1894 30 58, in 1899 32.96, and in 1904 34.14. The above figures are the averages of five-yearly periods.

To go from statistical to practical everyday experience—does not everybody know how frequently the solitary child in a home becomes—is it too much to say pampered?—at any rate reared with a delicacy and extraordinary care which is ill-calculated to fit him for the coming battle of life?

Mons. Emile Zola has drawn a true picture of the contrast between the solitary child and the large family in his novel, "Fruitfulness," and has sketched with considerable truthfulness, as well as art, the beneficial effects on all concerned of the competition prevailing in the well-filled home.

The diminution in the birth-rate is accompanied, as I have shown in several of my annual reports, by an increase, or at least a maintenance, of a terribly high infantile mortality, particularly in the large manufacturing towns. Take the following figures for England and Wales:—

			Infa	nt Mortality
			per 1	,000 Births.
		Birth-rate	-	England
Year.		per 1,000.		& Wales.
1896		29.7		148
1897	***************************************	29.7	***************************************	156
1898		29.4		160
1899		29.3		163
1900		28.9		154
1901		28.5		151
1902		28.6		133
1903		28.4		132
1904		27.9		146

Again, one may compare the figures relating to the birth-rate for our own country with the country which has come so much to the front in other matters lately, Japan. On the one hand we observe a steady increase, on the other an equally steady decrease.

BIRTHS PER 1,000 OF THE POPULATIONS OF JAPAN AND ENGLAND AND WALES.

	Births per	
	,000 living.	England
Year.	Japan.	& Wales.
1879	 24.4	 34.7
1880	 24.3	 34.2
1881	 25.6	 33.9
1882	 25.7	 33.8
1883	 28.2	 33.5
1884	 27.5	 33.6
1885	 29.3	 32.9
1886	 28.6	 32.8
1887	 27.5	 31.9
1888	 30.0	 31.2
1889	 30.5	 31.1

	Births per 1,000 living.	England
Year.	Japan.	& Wales.
1890	 28.5	 30.2
1891	 26.8	 31.4
1892	 29.4	 30.4
1893	 28.5	 30.7
1894	 28.9	 29.6
1895	 29.5	 30.3
1896	 80.0	 29.6
1897	 30.9	 29.6
1898	 31.3	 29.3
1899	 31.4	 29 1
1900	 31.4	 28.7
1901	 32.7	 28.5

So far as concerns those of our colonies from which statistics are available, they are equally disappointing. In Australia the birth-rate has fallen with even greater rapidity than in England and Wales. During the years 1861-65 the birth-rate was 41.9 per thousand, whilst during the years 1896-1899 it was only 27.35 per thousand. This is all the more regrettable, because the great want of Australia is a larger population.

I repeat that the more closely one considers this question the more one becomes convinced that the condition of affairs which prevails now and which has prevailed for many years will, if it be continued, finally result in England sinking to a position of secondary importance amongst nations, and in its population degenerating into puny neurasthenics.

Still-Births.

I have been endeavouring to obtain some information as to the number of still-born children interred in the various burial places in the town, and I have to that end sent out a number of communications to clergy, ministers, and registrars, who one and all have been most kind and courteous in supplying all the information at their disposal. I find that there are twelve burial places in the Borough, but in five of these no new graves are allowed, leaving seven in which there is a possibility for still-born children to be interred. During 1904 119 still-born children were interred in seven of these burial places, and of this number 74 were certified by medical practitioners, and 16 by well-known midwives, leaving 29 interred without any certification at all as to the genuineness of still-birth or otherwise. The Midwives Act, 1902, now makes it compulsory upon all midwives to report to the Medical Officer of Health all cases where still-births occur, and where a doctor is not in attendance. These Lotifications are coming in extremely slow up the present, but I feel sure that after a few visits of your Female Inspectors to the midwives on our register, and a thorough explanation to these persons of the duties which the new Act has thrown upon them, better results will be obtained. It is now far too easy a matter for a still-born child, or one said to be still-born, to be interred in an almost surreptitious manner, and whilst I have no ground for asserting that any loose practice exists in this connection, the door is open to it, and the temptation therefore exists. I am one of those who think that in all cases of still-birth a medical certificate should be obtained before burial.

Illegitimate births have numbered 103, namely, 49 males and 54 females, or 4.0 per cent. of the total births registered, though this is apt to be a fallacious method of expression.

Deaths.

The deaths registered in the Borough at all ages number 1,941, namely, 975 of males, and 966 of females. These figures have been reached by deducting from the gross number of deaths registered 40 deaths of persons which occurred within the district of persons not belonging thereto, and of adding on 28 deaths of persons belonging to the district who died outside the district. (See tables on following page.)

The nett corrected death-rate per thousand of the estimated population was, therefore, 21 59. It should be noted that this death-rate is one which has been artificially increased by multiplication by the factor 1 0794 supplied by the Registrar-General, the correction being applied in order to render a comparison between the death-rate of Stockport and those of all other towns in the country a perfectly fair one. The correction abolishes all discrepancies which would otherwise exist between what is called the age and sex distribution of the population in one town as compared with another, so that towns which have a large population of people at middle age when death is infrequent may for example be put on to a fair basis of comparison with those which have a large population of very young or very old persons, in whom death is much more frequent. It is believed that this factor of correction has not been available for a number of years prior to about 1901, but in the tables which follow, and in which a comparison is made between the death-rates of this and previous years, the correction has been applied.

The death-rate for the Borough during 1904 is a greater one than the average of the 76 Great Towns of England and Wales, which corresponded to 18.31 per thousand. In comparing the death-rate in other towns with that in Stockport from a purely statistical point of view, and having regard to all the statistical corrections which affect the death-rate, it is necessary to choose towns which, although their industries and size of population may be totally different from Stockport, yet present a factor for correction which approximates closely to that used for the Borough. The fact of this factor for correction being approximately the same in any two or more towns means that in respect of the two things which most seriously affect the death-rate, those towns are practically on all fours.

Working on these lines, then, one finds that the following towns possess a factor for correction, or in other words a population of age and sex constitution, similar to that of Stockport:—

TOWNS, in the order of their Corrected Death- Rates.	Standard Death- rate.	Factor for Correction for sex and age Distri- bution.	Recorded Death-rate, 1904.	Corrected Death-rate, 1904.	Comparative Mortality Figure, 1904.
Cardiff	16.73	1.0875	14.83	16.13	994
Derby	16.88	1.0778	15.30	16.49	1,016
Halifax	16.79	1.0836	15.45	16.74	1,031
Newport, Mon	16.84	1.0804	15.67	16.93	1,043
Huddersfield	16.96	1.0728	17:51	18.78	1,157
Swansea	16.96	1.0728	18.02	19.83	1,191
Newcastle-on-Tyne	16.87	1.0785	19.36	20.88	1,287
Stockport	16.84	1.0804	19-65	21.23	1,308
Birmingham	16.91	1.0759	19.88	21.39	1,318
Warrington	16.89	1.0772	19.90	21.44	1,321
Middlesbrough	16.71	1.0888	19.78	21.54	1,327
St. Helens	16.79	1.0836	20.89	22.64	1,395
Liverpool	17.00	1.0702	22.59	24.18	.1,490

^{*}The standard death rate signifies the rate at all ages calculated on the hypothesis that the rates for each sex at each of twelve age-periods in each town were the same as in England and Wales during the ten years 1891-1900, the rate at all ages in England and Wales during that period having been 18.21 per 1,000.

⁺ The factor for correction is obtained by dividing the standard deathrate in England and Wales by the standard death-rate in each town, and is the figure by which the recorded death-rate should be multiplied in order to correct for variations of sex and age distribution.

^{||} The corrected death rate is the recorded death-rate multiplied by the factor for correction.

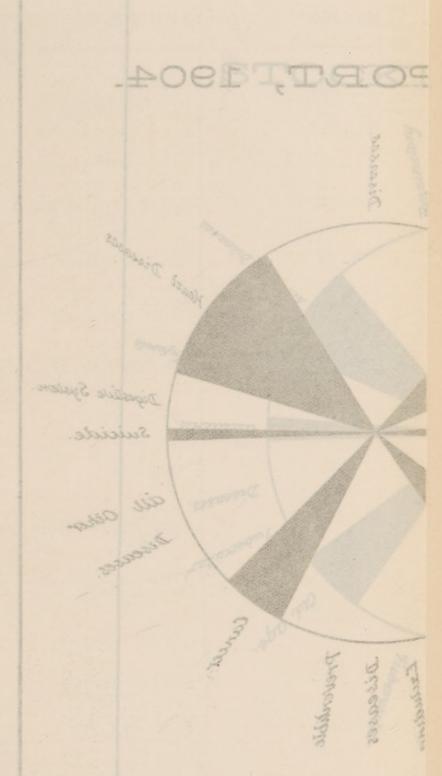
§ The comparative mortality figure represents the corrected death-rate in each town compared with the recorded death-rate at all ages in England and Wales in 1903 taken as 1,000.

As an old Borough, and as one of the workshops of England, Stockport cannot be regarded as having a particularly high death-rate, and this is particularly the case when one remembers that during 1904 we had a far heavier incidence of infectious disease than I believe has ever been recorded in the Borough before. We had, too, an exceptionally severe outbreak of Autumnal Diarrhœa, which was responsible for no less than 166 deaths; the deaths from the seven principal zymotic diseases altogether numbering 300. It is well known to all statisticians that zymotic mortality, and particularly diarrhoal mortality, is a thing which varies considerably from year to year, and in this respect Stockport, during 1904, was peculiarly unfortunate. In spite of this, however, as may be seen by a glance at Table I. (Local Government Board return), the death-rate for 1904 was materially lower than the average death-rate for the preceding ten years; indeed in only four of the preceding ten years did the death-rate reach a lower point than that of the year under notice, and in these years the deathrates were only slightly below that recorded for 1904.

Comparative Mortality During Last Decennium.

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

				Nu	nber	of]	Death	is.		
CAUSE OF DEATH.	1904	1903	1902	1901	1900	1899	1898	1897	1896	1895
Seven Chief										
Zymotics	300	224	185	240	179	354	327	386	231	336
Smallpox	14	5	7							
Scarlet Fever	21	27	23	25	5	10	11	19	19	6
Diphtheria		9	11	17	15	5	3	4	14	27
"Fevers" —										
Typhoid										
and Con-										
tinued	11	13	13	14	17	9	21	20		20
Measles	65	41	36	51	24	93	55	73	17	84
Whooping										
Cough	8	49	33	13	41	31	18	38	34	32
Diarrhœa	166	80	62	120	77	206	219	232	125	167
nfluenza	11	9	9	12	23	36	10	19	9	16
ung Diseases										
(including										
Phthisis)	506	497	529	437	539	488	492	522	542	629
Heart Diséase	222	190	199	152	126	119	123	123	126	140
njury	35	30	63	21	39	50	49	46	28	32



Chief Causes of Death.

STOCKPORT, 1904.

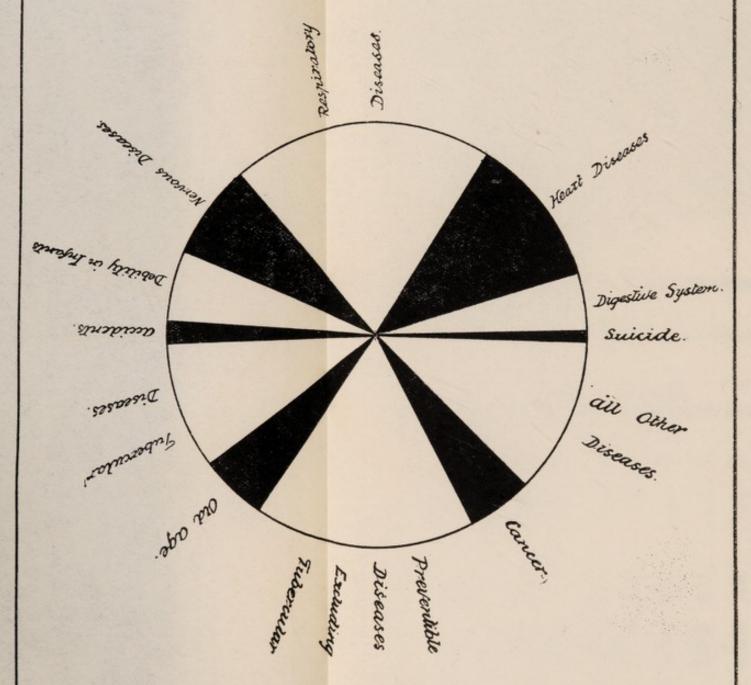


Diagram shewing Chief Causes of Death.

	1904	SALAS	THENY	RYTOR	SUMMA		oro	UGI
-	Death rate Other Long Dream 1000.	Acreation Sales Sa	Persons per sare.	WARI	Term Term		No. of de'ths under I year of age	Infa mo tali rat pe 100 birt
Company of the Compan	4:85	118		CASHIRE	LANC		80	20
-	5.10	6 230	age in our	NAG-NOI	HEAT		53	30
-	5.77	5113	270 .02 12.		OLD		35	20
-	4.78	7 82/20	440 g2 90)	GOOM.	FORT		48	22
and the same	77.7	79 3	700 41-208	6'YHA	M .Ta O		21	30
-	17.8	121		NOI	VERN		38	21
-	69.4	98		NG BAND	SPRI			
-	88-8			Ywoon.	ПОН			
	3.22	335	into produce	TEKY .	EDGE		on H	oab
-	96-9	0804	нетове	HTENER TE	WEH8			30
and of the latest of the latest	81.6	784		SAMOT	ff.ra			18
	76-1	SEL	LANE	SHAW	INCOL			25

80 I E E E

SUMMARY OF THE VITAL AND MORTAL STATISTICS OF THE BOROUGH AND EACH OF ITS WARDS FOR THE YEAR 1904.

WARD.	Acreage.	Estima- ted Popula- tion.	Persons per acre.	No. of Births registered.	Birth rate.	Nett deaths	2010	No. of de'ths under 1 year of age	Infant mor- tality rate per 1000 births.	No. of de'ths from 7 prin- cipal Zy- motic dise- ases	Zymotic Death rate per 1000.	Zymotic death rate per 1000 (exclud- ing Diar- rhea)	No. of de'ths from Diar- rhœa.	Death rate from Diar- rhœa per 1000.	No. of de'ths from P'thi- sis.	Death rate from Phthisis per 1000.		Death rate from other Tuber- cular diseases per 1000.	No.of de'ths from Other Lung Dis- eases.	from Other
LANCASHIRE HILL	145	5,116	35-28	M. F. 72 143	27.95	114	24.05	80	209.8	29	6.11	3.87	13	2.74	9	1.88	6	1.26	23	4.85
HEATON LANE	234	6,838	27.08	84 89	27-29	157	26.73	58	306 3	28	4.76	1.70	18	3.06	6	1.02	6	1.02	30	5.10
OLD ROAD	114	5,976	52-42	87 82	28.28	148	25.82	85	207.1	31	5.59	3.43	12	2.16	9	1.64	8	1.44	32	5.77
PORTWOOD	324	7,440	22.96	104 113	29-17	159	28.06	48	221:2	24	3.48	1.30	15	2.17	7	1.01	6	0.86	32	4 78
ST. MARY'S	91	3,750	41.208	32 37 69	18-40	94	27:05	21	304.3	6	1.72		6	1.72	9	2.59	4	1.15	27	7.77
VERNON	427	6,103	14.29	102 71	28.34	129	22.80	38	219-6	20	3.52	1.23	13	2.29	6	1 05	5	0.88	21	8.71
SPRING BANK	81	5,002	61.75	72 76	25.59	126	27:18	41	277:08	22	4.74	1.51	15	8.23	8	1.72	6	1.29	26	5.60
HOLLYWOOD	346	8,343	24.11	105 122	27-21	160	20.70	46	202.6	27	3.49	0 90	20	2.58	8	1.03	5	0.64	30	3.88
EDGELEY	331	7,148	21.59	98 84	25.46	106	16 00	24	131.8	6	0.90	0.60	2	0.30	4	0.60	3	0.45	25	3.77
SHAW HEATH	392	7,960	20.306	109 104	26.76	191	25.89	48	225.3	26	3.52	2.03	11	1.49	10	1.35	8	1.08	44	5.96
ST. THOMAS'	. 53	5,618	106.0	63 75	24.56	131	25.16	31	224.6	17	3.26	1.34	10	1.92	9	1.72	6	1.15	27	5.18
HEMPSHAW LANE	146	5,432	37-206	76 80	28.72	97	19.27	33	211.5	19	3.77	1.58	11	2.18	4	0.79	6	1.19	23	4.57
CALE GREEN	145	6,696	46.18	67 73	20.91	89	14:34	18	128-6	7	1.12	0 32	5	0.89	7	1.12	1	0.16	12	1.93
HEAVILEY	1115	6,878	6.17	62 82 144	20.93	97	15.22	19	131-9	10	1.56	0.78	5	0.78	5	0.78	1	0.15	14	2.19
REDDISH NORTH	786	5,435	6.91	83 72	28-52	75	14.89	13	83.9	7	1.39	0.99	2	0.39	6	1.19	3	0.59	18	3.57
REDDISH SOUTH	755	3,773	4.99	62 57	31.54	73	20.88	22	184.9	21	6.00	8 71	8	2.28	3	0.85	3	0.85	12	8.43
STOCKPORT BOROUGE	5485	97,008	17.68	1277 1289 2566	26.45	м 975 F 966 1941	21.59	520	202.6	300	3.83	1.49	166	1.84	110	1.22	77	0.85	396	4.40

^{*} 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 Diarrhosa.

§ Registrar General's estimate.

An alteration has been made in the classification of deaths from epidemic or zymotic diarrhoea and kindred diseases which affects the figures of this year and the two preceding years, 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:—

Table Showing Summary of Vital and Mortal Statistics for the Borough.

	No. of
	Deaths.
Lung diseases (excluding Consumption)	396
Freventible Diseases (excluding Tubercular Diseases)	334
Phthisis and other Tubercular Diseases	187
Diseases of Circulatory System (Heart, &c.)	222
,, Nervous System	
,, Digestive System	
Debility and Wasting, etc., in Infants	104
Old age	
Cancer	95
Accidents	
Suicides	
All other diseases	

The noticeable features in the comparative mortality table just given, are, firstly, the increase in the number of deaths from zymotic diesase, and particularly in the deaths from diarrhoea, whilst deaths from heart disease also show an increase. The deaths from scarlet fever, diphtheria, typhoid fever, and measles are maintained at a number which varies little from the record of the previous nine years. In the matter of whooping cough the town has been unusually fortunate during 1904.

In the diagram accompanying this portion of the report the principal causes of death are graphically displayed, and a glance at the diagram will show how largely lung diseases, zymotic, or preventible diseases, and diseases of the heart figure in the annual death roll. Cancerous diseases, it is to be regretted, show a material increase over the records for previous years, but as this may be due not to a greater prevalence of the disease but to its better recognition it would be unwise to regard it too seriously.

In the following table are shown the deaths which occurred within the district of persons not belonging thereto:—

Where from.		DIED.		When from	DIED.		
THE HOIL	Work- house.	In- firmary.	Else- where.	Where from.	Work- house.	In- firmary.	Else- where.
Hyde	18			Compstall	1	1	
Bredbury	2	2		Marple	1		
Woodley	2			Wilmslow		1	1
Romiley	2			Manchester		1	
Heaton Moor	1	1		Sandbach		1	
Heaton Mersey	1	1		Hazel Grove			1
Cheadle	1	1					

Totals: - In Workhouse, 29; in Infirmary, 9; elsewhere, 2.

In the following table are shewn the deaths which occurred without the district of persons belonging thereto:-

Parkside Asylum, Macclesfield	14	Heaton Moor	2
County Asylum, Lancaster	2	Blackpool	2
Manchester	8		

DEATHS IN INSTITUTIONS.

In the various Public Institutions in Stockport, 291 persons belonging to the town have died during the year. These deaths have been distributed to the Wards in which the persons were normally resident, as shewn in the following table:—

		Died in			Died in		
Ward.	Work- house.	In- firmary.	Isolation Hospit'ls	Ward.	Work- house.	In- firmary.	Isolation Hospit'ls
LancashireHill	5	1	3	Edgeley	4	4	1
Heaton Lane	20	4	2	Shaw Heath	43		4
Old Road	11	2	3	St. Thomas	25	4	2
Portwood	10	4		HempshawLane	13	1	6
St. Mary's	22	4		Cale Green	8	2	1
Vernon	16	2	1	Heaviley	5	2	1
Spring Bank	25	3	1	Reddish North	5	1	
Hollywood	14	5		Reddish South			1

Totals:—In Workhouse, 226; in Infirmary, 39; in Isolation Hospitals, 26.

Table I.—LOCAL GOVERNMENT BOARD RETURN.

Vital Statistics of Whole District during 1904 and previous years.-Name of District, STOCKPORT.

			Year 1904.	1
DEATHS A BELONGIN IE DISTRIC		Rate.*	20.50 22.99 24.70 23.31 23.31 24.43 20.94 20.94	21.59
		Number.	1888 1870 1587 1725 1671 1671 1766 1549 1832 1781	1941
Deaths of Res'd'nts	regis- tered in	Public Institu- tions &c. beyond the District.	35 4 7 : : : : : : : : : : : : : : : : : :	.: 58
Deaths of Non-	residents regis-	tered in Public Institu- tions &c. in the District.	12 64 64 72 64 72 72 73 73 74 75 75 75 75 75 75 75 75 75 75 75 75 75	40
		PUBLIC INSTITU- TIONS IN THE DISTRICT.	228 289 241 241 241 280 280 280 280 280 280 280 280	329
DISTRICT.	Ages.	Rate.*	21.26 28.45 25.45 24.05 24.32 25.22 25.22 20.36 20.36	25.03
TOTAL DEATHS REGISTERED IN THE DISTRICT	At all Ages.	Number.	1434 1941 1648 1780 1699 1738 1823 1617 1856 1806	1734
THS REGISTE	ear of Age.	Rate per 1000 Births registered.	231 231 231 231 231 231 183 183 183	204
Total Deat	Under 1 Year of	Number.	568 568 568 531 551 518 467 477 515	520
Вінтив.	Rate.*	31.68 38.86 32.06 32.82 31.23 30.28 29.44 27.70 27.59	30-54	
		Number 3	2306 2456 2388 2473 2381 2381 2287 2297 2186 2606 2800	2423
	Donnlation	estimated to Middle of each Year.	72,770 73,620 74,480 75,350 76,220 77,100 78,897 94,422 95,709	79,657
		YEAR.	1894 1895 1895 1896 1897 1899 1900 1901 1902 1903 Averages for years	1894—1903

Nore.—The Death Rates for the years 1894-1902 (in columns 8 and 13) have been corrected from previous reports by multiplying the figures by the Registrar General's factor, 1.0794, so that the rates are now strictly comparable. * Rates in Columns 4, 8, and 13 calculated per 1,000 of estimated population.

Uncertified Deaths and Inquests.

During the year there were 128 deaths registered in which the cause of death was not certified by any medical practitioner. In 122 of these cases an inquest was held, and the verdicts found by the coroner's juries may be summarised as follows:—

1. Natural Causes. "Natural Causes" Measles Senile decay Convulsions Heart failure (syncope) Heart disease. Apoplexy Inanition Phthisis Consumption of bowels	8 1 4 14 13 5 2 2 1	2. By Accident or Negligence. In vehicular traffic Burns and scalds. Falls from a height Fractures Injuries to head and neck Injuries, shock to system Injuries to brain Other injuries Drowning	1 11 4 3 3 1 2 1 5 2
Tubercular meningitis	1 2	Suffocation	2
Bronchitis	4	Alcoholism	2
Congestion of lungs	$\frac{1}{2}$	3. Suicides.	
Septic pneumonia following	4	5. Fulcides.	
confinement	1	By poison	4
Inflammation of bowels	2	By hanging and strangulation	9
Internal hæmorrhage	1	Drowning	2
Paralysis	1	Cut or stab	2
Asphyxia Tetanus	1		
Ptomaine poisoning	1		
Tomano Possoning minimum			

I trust I shall be pardoned if I once more direct the attention of your Council to the necessity for providing a **public mortuary**, or making such arrangements as would obviate the necessity for depositing dead bodies upon which inquests have to be held in public-houses and other unsuitable places. The matter came before two Committees of your Council during the year, but no definite conclusion was reached. Section 141 of the Public Health Act, 1875, authorises your Council to provide and fit up a proper place for the reception of dead bodies before interment, to make bye-laws with respect to the management of such place, and to make charges for its use.

Mortality in the Different Wards.

1. **Density of Population**. The average density of the Borough in persons per acre is 17.68, this figure being based on the distribution of a population of 97,008 on an area of 5,485 acres. The ward with the lowest density is Reddish South, where it is only 4.99 persons per acre, and this is followed somewhat closely by Heaviley Ward with 6.17 persons per acre, and Reddish North with 6.91. St. Thomas' Ward is the most densely populated portion of the Borough, there being a population of 5,618 on an area of

53 acres, or 106 persons per acre; the next most densely populated ward is Spring Bank, where the density is 61.75. The figures for the other wards are given in the tabulated summary inserted in the report.

The density of population is a factor which influences the death-rate to a considerable extent, and particularly affects the spread of zymotic disease, and the influence of tubercular disease; thus in St. Thomas' Ward the nett death-rate was 25·16, considerably above the average for the Borough as a whole; the infant mortality reached the high figure of 225 per thousand births, and the zymotic death-rate was 3·26. In Spring Bank Ward the nett death-rate was even higher than in St. Thomas' Ward, viz, 27·18, whilst the infant mortality was one of the highest of those recorded for any ward in the Borough, viz., 277 per thousand births, and the zymotic death-rate was in excess of that for the Borough as a whole.

2. The Nett General Death Rate, which, for the Borough as a whole, was 21.59 per thousand, was exceptionally high in the following wards:—

Spring Bank	27.18	Shaw Heath	25.89
St. Mary's	27.05	Old Road	25 82
Heaton Lane	26.73	St. Thomas'	25.16

Those wards which were favoured with a low death-rate were Cale Green, which has a low death-rate as a pretty constant thing, and in which the rate only reached 14.34 per thousand; Reddish North, where it was 14.89; Heaviley, where it was 15.22; and Edgeley, where it was only 16. It is curious to note that these four particular areas in the Borough have for a fair number of years now had a low death-rate. Reddish South Ward, which in previous years has been amongst these favoured districts, has a rate of 20.88 for 1904, largely due to the exceptional zymotic mortality which took place in it.

- 3. The Zymotic Death Rate. The rate for the Borough as a whole was 3.3 per thousand, and in only very few districts were there specially favourable rates recorded. Edgeley happened to be most fortunate in this particular with a rate of only 0.9, whilst following closely upon it came Cale Green Ward with a rate of 1.12, Reddish North 1.39, Heaviley 1.56, and St. Mary's 1.72. In three portions of the Borough the zymotic rate was very considerably above the average for the Borough, viz., Lancashire Hill Ward, where it was 6.11, Reddish South, where it was 6.00, and Old Road, where it was 5.59. In all these three districts the diarrhœal death-rate was considerably above the average. They cannot be said to have suffered in excess of the rest of the Borough from the notifiable infectious diseases, as a reference to Table 3 (Local Government Board return) will show.
- 4. The Death Rate from Diarrheal Diseases, which was 1.84 per thousand in the Borough as a whole, reached the high figures of 3.23 in Spring Bank Ward, and 3.06 in Heaton Lane; whilst it was as low as 0.3 in Edgeley Ward, 0.39 in Reddish North, 0.78 in Heaviley, and 0.80 in Cale Green. Again one sees the favoured position occupied by Edgeley, Cale

Green, Heaviley, and Reddish North Wards. The favourable record for Edgeley Ward is particularly noticeable, as it has been continued for a long period, and that in spite of the fact that it has a fairly high birth-rate, and, therefore, the place where one would expect infantile diarrhoa to be somewhat more prevalent. During the two years 1902 and 1903 only four deaths from infantile diarrhoa occurred in Reddish South Ward, and the diarrhoal rate recorded for those years was only 0.57; during 1904 it rose to the high figure of 2.28.

- 5. Phthisis or Consumption of the Lungs was responsible for a lower rate during 1904 than during the previous year. In the Borough as a whole it reached the figure of 1.22 per thousand. There was not the same marked difference between the death-rates recorded in different districts from phthisis as has been noted under the headings of other diseases; at the same time it is striking to note that in Edgeley and Heaviley Wards the rate was lower than in any other portion of the Borough, whilst Reddish South Ward followed closely upon these two favoured districts. The highest rate was that recorded in St. Mary's Ward, where the figure was more than double that for the Borough as a whole.
- 6. Infantile Mortality. The figures for the different wards show a considerable amount of departure from the average. The rate for the Borough as a whole was approximately 203 per thousand births, which is equivalent to a statement that slightly more than one-fifth of the children born died during their first year of life, but in three districts in particular the rate of infant mortality rose to an almost unprecedented height. In Heaton Lane Ward the rate recorded was 306 per thousand births, in St. Mary's Ward 304·3, and in Spring Bank Ward 277. When it is considered that even in a manufacturing town such as this the rate of infant mortality ought not to exceed something like 150 per thousand births, the significance of the foregoing figures can well be appreciated. Reddish North Ward has the honour of the lowest infant mortality rate, for there it only reached 84 per thousand births. The following wards show figures which are certainly good for a town of this description:—Cale Green 129, Edgeley and Heaviley 132. Again one observes the peculiarly favoured position of these particular wards.

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

NAMES OF LOCALITIES.	1,-	Laxcasn	mor Hi	LL.	2	-HEATS	ov Land			3.—Оы	Road			4.—Por	ITWOOD.			5.—Sτ.	Mary's			6.—V	ERSON.		7	.—Sex	No Bani	C.		8.—Hor	LYWOOD	0
YEAR.	Population esti- mated to middle of each year.	Hirthe ngbiered.	Deaths at all Ages.	Deaths unfer I	Population out- nated to middle of each year.	Northe registered.	Deaths at all Ages.	Deaths under 1 year.	Population sectional to tribule of each year,	Hirthe registered.	Deaths at all Apre.	Deaths under I	Population sett- maked to middle of ceath year.	Hirths registered.	Deaths at all Ages.	Deaths ander I	Population sett- maked to middle of each year.	Rirthe registered.	Notice at all Ages.	Deaths testor I.	Population esti- mated to moddle of each year.	Norths registered,	waths at all Ages.	Deaths under 1	Nepulation cett- celed to middle of each year.	little registered.	cutto at all Ages.	Doutles under 1 year.	oppolation cell- used to mising of each year.	irilia registered.	without all Ages.	Deaths under 1
	a.	6.	c.	d.	a.	b.	e.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.		b.	6.	d.	a.	b.	c.	d.	0.	b.	0.	d
1895	4665	173	103	85	5695	165	165	58	5568	209	159	52	6091	260	184	60	8495	123	138	29	5401	149	117	50	4663	161	155	43	6282	205	141	48
1896	4718	164	85	21	5762	186	138	35	5681	205	120	35	6163	249	183	68	8585	144	126	31	5470	186	117	31	4718	169	129	43	6356	194	125	35
1897	4779	162	90	31	5829	190	142	45	5697	205	118	38	6236	226	168	62	3577	125	186	31	5536	202	122	49	4778	163	146	41	6430	236	134	3/
1898	4827	162	104	28	5896	180	173	56	5762	195	128	49	6309	205	191	69	3618	122	107	31	5602	158	107	46	4827	188	120	36	6504	220	122	41
1899	4882	153	105	31	5964												_			_				_	4883						175	66
1900				24	6033	152	144	32	5897	193	105	35	6455	190	168	53	3702	114	123	23	5785	187	133	42	4940	162	151	41	6655	225	143	3
1901		167			6102			_		163	106	27	6528	191	144	49	3745	89	89	15	5801	175	116	36	4997	129	-117	36	6731	209	140	40
1902		149			6300			_	5966				7200			_		107		_		175	116	38	4997	146	189	38	8199	256	150	39
1903	5103	166	12	20	6382	184	125	33	5976	160	116	38	7377	203	148	38	3750	89	102	17	6026	200	115	38	5002	147	199	40	8300	290	122	38
Averages of years 1895 to 1903.	4887-7	160-3	92-8	28-2	5991-3	177-1	146-8	49-4	5810-1	188-5	122	37:8	6526-7	216-4	164-2	56	8647-3	110-7	114-7	25-8	5685-9	178-5	117	40-9	4896-7	156-5	135-8	89-8	6892-9	231-1	139-1	40
1904	5116	143	114	30	6838	173	157	58	5976	169	143	35	7440	217	159	48	8750	69	94	21	6103	173	129	38	5002	148	196	41	8943	000	100	33

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.

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

Sprii	NG BANK.		8	—Ногл	YWOOD.	
Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
) b.	c.	d.	a.	b.	c.	d.
161	155	43	6282	205	141	45
1 169	129	43	6356	194	125	35
163	146	41	6430	236	134	35
s 188	120	36	6504	220	122	41
1 144	136	86	6579	245	175	66
t 1 162 t	151	41	6655	225	143	33
r v 129	117	36	6731	209	140	42
1 146	3 139	38	8199	256	150	32
14'	7 129	40	8300	290	122	38
56	5 135.8	89.3	6892.9	231·1	139-1	40.8
. 14	8 126	41	8843	227	160	46

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

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

NAMES OF LOCALITIES.		9.—En	TLEY.		10	-Snaw	Неати.		11.	-St. I	HOMAS'S		12	-Hanes	new La	INE.	13.	-Call	Garen.		1	4.—Hz	AVELEY.		15,-	-Rizon	n Nonz	ır.	16	Repre	ur Soci	rit.	V	note I	Вовотон	
YEAR.	Population, self- maked to suiddle of each year.	Hirthe registered.	Desilier at all Ages.	Deaths under 1 year,	Population out- marked to publish of each year.	Births registered.	Deaths at all Ages.	Deaths maker I peaf	Population out- mater to missin of each year.	Meths supplement.	heathe at all Ages	Deaths under I	Population esti- coated to middle of each year.	Noths registered.	loaths at all Ages.	Deaths under 1 year.	Population sati- mated to middle of each year.	Births registered.	Seattle at all Ages.	Deaths reder I	Population esti- matel to middle of each year.	Hirthe registered.	Seaths at all Ages.	Douths under 2 year.	Population esti- mated to middle of each year.	Hirthe registered.	Deaths at all Ages.	Death under I	Population esti- mated to middle of each year.	High repaired	Deaths at all Ages.	Deaths under 1 year.	Population sett- maded to subblis- of each year.	Hirtin registered.	Donthy at all ages.	Deaths unfer I
	a.	b.	0.	a,	4.	b.	6.	d.	a.	b.	6	d.	g.	A	6.	d.	a.	ь.	c.	0.	a.	b.	c.	d.	a	ь.	e.	d.	a.	6.	c.	d.	a.	ð.	e.	d.
1895	5974	277	117	85	5554	125	163	35	5215	180	173	46	4630	165	110	45	6150	140	72	16	4237	124	73	19				-					73620	2456	1870	568
1896	6013	195	104	33	5618	156	98	22	5275	196	158	42	4683	134	78	29	6221	118	67	14	4287	92	64	13	***			40					74480	2388	1587	452
1897	6114	189	96	22	5684	190	147	49	5836	211	173	44	4736	184	110	44	6294	118	78	18	4396	192	70	22									75350	2473	1725	531
1898	6185	202	97	34	5750	177	117	87	5397	189	147	50	4790	137	84	31	6968	138	77	19	4385	108	73	24				-					76220	2381	1647	551
1899	6257	169	119	33	4817	158	122	41	5458	180	137	32	4845	155	107	40	6442	124	89	17	4485	103	62	19				***		***			77100	2335	1671	518
1900								_				_												_				_					79000			
1901	6401	180	107		2000					173	139	37	4960	148	100	27	6590	120	79	18	4540	133	60	17	***				***				78897	2186	1549	481
1902	6975		96		7511 7785			100	3 (200)				1000000				-				6531				5037 5210	165		1000	3731 3766				94422			3333
Averages of years 1895 to 1903.	-										3600			-				-		_			750			162-5	77	28	3748	110	69-5	21-5	80422	2435-8	1714-9	501-1
1904	7148	182	105	24	7960	213	191	48	5618	138	181	31	5432	156	97	33	0696	140	89	18	6878	144	97	19	5435	155	75	18	3773	119	73	22	97008	2566	1941	520

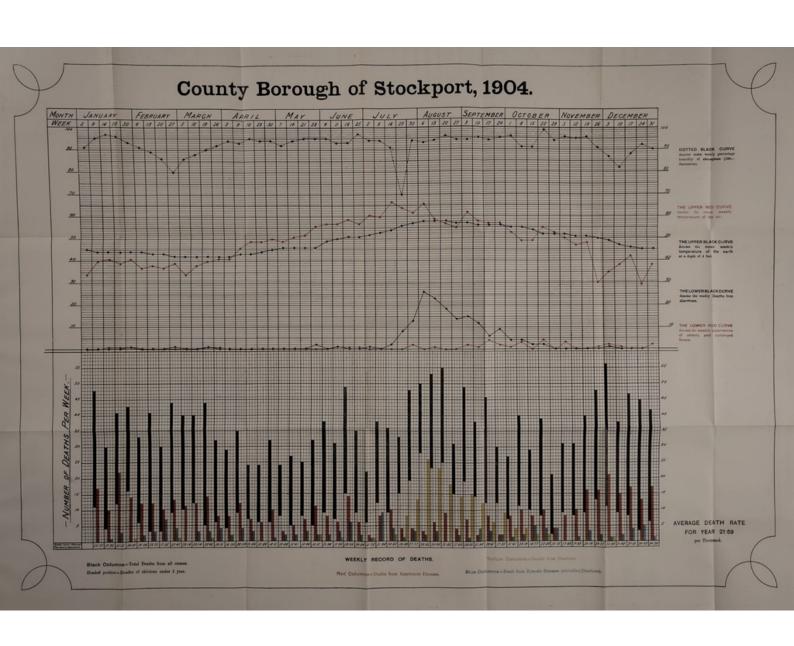
Deaths of residents occurring beyond the district are included in sub-columns c of this table, and those of non-residents registered in the district excluded. (See note on Table I. as to meaning of terms "resident" and "non-resident.")

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 commercial.

3	-Reddis	вн Ѕоит	rH.	W	hole B	orough.	green in
	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1
	b.	c.	d.	a.	b.	c.	d.
	1			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	481
	104	55	21	94422	2606	1832	477
;	116	84	22	95709	2800	1781	515
3	110	69.5	21.5	80422	2435.8	1714-2	501.1
3	119	73	22	97008	2566	1941	520

and "non-resident.")



;s -):s

INFECTIOUS DISEASE NOTIFICATION ACT. CASES REPORTED DURING 1904.

Month.	Small- pox.	Scarlet Fever	Diphthe- ria	Membra- nous Croup	Typhoid Fever	Con- tinued Fever	Puerperal Fever		Phthi sis	Tot'ls
January	3	46	3		3		1	8	1	65
February	2	31	3				1	1	1	39
March	15	26	3		2		2			48
April	20	34	3				1	5		63
May	15	24	3	1			1	3	1	48
June	36	31	1	1	1			1		71
July	45	50	3		4	1	1	2		106
August .	12	62			2			3		79
September	4	88	5		9		1	7		114
October	3	99	6	2	8		1	9	1	129
November		63	3		5		3	18		92
December	•••	38	2	1	3			14	1	54
Totals	155	587	35	5	37	1	12	71	5	908

Infectious Diseases Notification Act.

It is a matter for great regret that, during 1904, there were more notifications received than have ever been received before in the history of the Borough during one single year. No less than 908 certificates were received from medical practitioners under the provisions of the Notification Act. Comparing the record with those for previous years one finds that the factors which are principally responsible for this serious increase in notified cases are, first, the epidemic of smallpox through which the town passed, and in which 155 cases were concerned; second, the continued serious prevalence of scarlet fever, and the notification of 587 cases of that disease; and third, a somewhat unusual number of notifications from erysipelas, particularly during the last quarter of the year. The notifications, with the exception of those of smallpox, were fairly evenly distributed throughout the Borough; smallpox particularly affected St. Thomas' and Hempshaw Lane Wards, but in the case of other diseases the various portions of the Borough seem to have suffered with two exceptions pretty equally, the two exceptions being St. Mary's Ward, in which only 9 cases of scarlet fever were recorded, and St. Thomas' Ward, where there were only 16. Cale Green and Vernon Wards had an incidence of scarlet fever slightly in excess of the remaining portions of the Borough. During July, August, September, October, and November, an exceptional prevalence of scarlet fever is to be noted, and this wave of prevalence appeared to gradually increase in extent from July to October, when it commenced to decrease; and by December it had sunk to a normal or even a sub-normal point. What are usually regarded as the more serious infectious diseases, viz., diphtheria, typhoid fever, and puerperal fever, have not shewn any great departure from the average of recent years, and this cannot but be a matter for congratulation, inasmuch as these particular diseases are generally supposed to be as a rule dependent upon filth conditions for their propagation. The notifications of phthisis have been exceptionally few, but as they are purely voluntary no conclusions can be drawn from them. In Table 3 (Local Government Board Return) is set out the distribution of cases according to age, locality, etc.

Vaccination.

In the following table the returns relating to primary vaccination of infants during the decennium 1894-1903 in the various registration districts of Stockport are exhibited. It is to be noted that these registration districts formerly included portions of Reddish, Heaton Norris and Brinnington outside the Borough boundaries, but a rearrangement of the district was effected in 1902, so that a slight variation in the figures results. The number of certificates of successful primary vaccination received during the last five years has been as under:—

1899	***************************************	1,970
1900		2,062
1901		2,217
1902		
1903	***************************************	2,466

TABLE III.

LOCAL GOVERNMENT BOARD BETURN, STOCKPORT DESTRUCT

CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1904.

	C	Aven N	VEIKLE	O IN WHO	one Dr	OATHICK.								Tor	AL CA	nes No	TIFILE	IN HA	in Le	CALETY		T			•						80	or C	ANEN II	KMOVE	p 70 H	OSPETA	L PROD	BACK	Locas	III.						
				At Ages	r-Yea	are.									W	ards a	nd Inc	titeties	in.															Wan	la and l	Intiliat	Lions.								Union	
NOTITURE DISEASE.	Atal						4	No. 1	No.2	No. 3	No. 4	No.5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11	No. 12	No. 152	No. 163	No. 15 N	14.36				No. 1	No. 2 N	6a. 2 N	0.4 %	a.S No	6 No.	7 No.	a No.	9 No. 1	10 No. 1	11 No.	11 No. 1	No.	16 No. 1	5 No. 10				Cases	Inferont Cases
	Atail	Under J.	1 to 5.	\$1015.	13 to 25.	10 00 00	Charle sprace	Lancashire Hill	Healou Labs	Old Board	Portwood	St. Mary's	Version	Spring Bank	Hollywood.	Edgeday	Staw Beath	Pt. Themson	Hetrpshaw Lane	Oake Green	Heavilley	Briddish Yorth	Reblish South	Informacy to the second	То	habe	Laccabire IIII	Heaten Lame	Old Boad	Pertwood	Version 1	Spering Beat	Helly wood	Edgeloy	Shaw Brath	St. Themas.	Rempshaw Lane	Cale Green	Beartley	Beddish Sorth	Reddish South	Defermenty	Union Worklass	Totale	Union Hospital	Treated i
Small-pox	155	-5	3	18	9.5	100	0	-		6			-	-						-	A		11			Ì													A		n		7/10	GSS		
Cholera		500	100	310	20	102	2	1	0	6	*	1	3	10	6	1	5	41	29	8	3	9	12	1 :	9 15	5			6	4	1 :	10	0 6	1	5	41	21	3	3	9	13	1	9	155	100	- 37
Diphtheria			8	17	4	6				-			***		""		-		***			***																	-					***	***	***
Membranous croup	5		4	17																					. 3																			1	***	
Erysipelas	71	1	- 3	6	17	41	3	6	5	4	5		6	1	7		1	2	9	1		1	2																						7	
Scarlet fever	587	4	189	351	34	9		38	27	46	70	9	62	26	48	99	42	16	24	56	93	43	9.3	1	58	7	18	90	91 9	8	1 34	10	19	7	19	4	-	15	8	14	5		4	941	100	1
Typhus fever				***					***																																				-	
Enterie fever	37		2	10	5	20		2	4	8	2		3	2	2	2	2	1	2	1	2	5	1	1 :	3	,																	2	13		1
Relapsing fever																																												-	***	
Continued fever	1				1		***	***	1																. 1			1 .																1	***	***
Puerperal fever	12					3	.9	2			2		3.		2				2	2				1 3	15	3																			1	400
Plague								_																		_																			1	***
Phthisis	5				3	2	***	***	1	1				1								2 .			1	5									***											***
Totals	908	10	200	403	89	183	14	57	47	61	85	10	76	40	71	34	54	66	61	68	38	67 4	6	23	908	1	25 5	28 9	29 3	3	5 40	29	25	9	18	45	36	19	13	28	18	1	15	411	8	3

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.)

Smallpox Isolation Hospital is situated in Reddish South (marked a.)

	15./	ACH L	OCALIT	Y.						
Heaton Lane	2 2 1	Cale Green .o.	Heaviley	Reddish North	Reddish South 91 .o.	Infirmary	Union Workhouse	Totals	Union Cases Treated in Union Hospital	Infirmary Cases Treate I in Infirmary.
	I		Λ		В					
5		3	3	9	12	1	9	155		
2			1					1		
2										
5									7	1
27		15	8	14	5		4	241		1
4		1	1		1		2	13		1
1								1		
									1	
1										
47		19	13	23	18	1	15	411	8	3

The l

Year ending 31st Pec'mb'r	No. of Births registerd	Success- fully Vaccin- ated.	Insu'ceptible of Vaccination.	Had Smallpox.	Number in respect of whom Certi- ficates of Conscien- tious Objection have been received.	Dead Unvacc- inated.	Postpon- ement by Medical Certi- ficate.	tricts the Vaccina- tion Officer of which has been duly	Removal to places unknown or which cannot be reach- ed and cases not having been find	Un- account- ed for.
1894	2690	1890	15			403	64	25	166	127
1895	2858	1843	18			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
1902	1987	1450	3		28	803	+32	45	65	36
1903	2801	2179	6		41	392	‡69	7	94	14
Totals	26654	19272	117		325	4139	481	168	1352	826

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

The figures for the years 1902-3 are for the borough only.

Measles and Whooping Cough.

During the year under review, 65 deaths occurred from measles, and 8 from whooping-cough. The deaths from measles took place chiefly between the ages of 1 and 5 years (no less than 50 of them occurring during that ageperiod), and of the remainder 10 were of children under the age of 1, and 5 of children between the ages of 5 and 15 years. Of the 8 deaths from whooping-cough 4 occurred in children under one year of age, and 4 in

children between the ages of 1 and 5 years. The deaths from measles are considerably in excess of those for 1903, when only 41 such deaths were recorded; Lancashire Hill, Old Road, and Reddish South Ward, all contiguous to one another, were the localities mainly concerned, about half the cases occurring in those three Wards, and the remaining cases being distributed in 11 other Wards.

These two diseases, measles and whooping-cough, are usually denominated the lesser or minor infectious diseases, yet measles alone caused more deaths during 1904 than smallpox, scarlet fever, diphtheria, and typhoid fever all put together, a most anomalous condition of things. I cannot but think that if similar measures could be adopted in controlling measles and whooping-cough to those which we adopt with so much success in the control of smallpox, scarlet fever, etc., the number of lives saved would be well worth the money, time and trouble expended. Almost from time immemorial this enormous death-rate from measles and whooping-cough has gone on, and no serious attempts have been made to deal with it. The chief difficulty which presents itself to a health officer desirous of controlling the spread of these diseases is a legislative difficulty; there is no means provided for their notification, no power to compel isolation, disinfection, quarantine, and the numerous other measures which have proved so u eful in the control of similar diseases. The second great difficulty in the way is the dreadful apathy with which the public in general regards these illnesses. It is becoming stale now to allude to this matter, but at the same time one cannot allow these diseases to go on annually sapping the life and strength of the population without uttering some protest in the hope that eventually it may reach a quarter from which some benefit may be derived. Notification of measles per se has been tried for a considerable number of years in several towns, large and small, with practically no beneficial result; isolation has been tried in some of the larger towns for the poorer and more unfortunately situated cases, again without material benefit, except to those individually concerned. To my mind the greatest good would probably be effected by a stringent system of notification of early cases from public elementary schools, a strict exclusion of the sufferer and all persons from the affected house from school attendance, and careful isolation at home, supported by legislative power to take action in cases where isolation was not adequately maintained. It has been borne in on me by numerous epidemics involving thousands of cases, that the elementary schools are the greatest possible sources of danger during the prevalence of measles in any town, and particularly the infants' departments of such schools. This is also the experience of public health officials in practically every other town in the kingdom; indeed it is becoming a trite saying amongst medical officers that infants' departments of public elementary schools are good for nothing, except spreading measles and whooping-cough, and a movement is on foot throughout the country to abolish the attendance of children under five years of age at public elementary schools. With this movement my experience with measles, whooping-cough and other infectious children's ailments compels me to have the greatest possible sympathy.

The following statement shows how terribly serious is this annual toll of deaths from measles and whooping-cough:—

Year.	Deaths due to and Whooping	 Deaths due to the of the seven che diseases put	ief zymotic
1893	70	 	94
1894		 	32
1895	116		53
1896			55
1897	444		43
1898	m ()	 	35
1899	124	 	24
1900	65		37
1901	64		56
1902	69		54
1903	90		92
1904	73		132
		_	
	Totals 910	 	707

Diarrhœal Diseases.

The deaths from diarrheal diseases during 1904 were exceptionally heavy, there being 95 deaths at all ages from epidemic or zymotic enteritis, and 71 deaths from diarrhea and dysentery according to the old classification, or a total of 166 deaths altogether from specific diarrheal diseases.

The term diarrhoea has been used in a very indefinite manner in the past, and it has recently been suggested that the term zymotic enteritis should be applied to specific or preventible diarrhea as distinguished from that diarrhea which occurs during the course of such illnesses as cancer, tuberculosis, etc., or as a result of some non-specific gastric or intestinal disease. The old term diarrhoea has been retained for a few years at any rate so as to form a guide in estimating the number of deaths which have to be transferred from enteritis, gastro-enteritis, gastro-intestinal catarrh, etc., to the specific heading zymotic enteritis. In calculating the death-rate from diarrhea I have included deaths certified as due to diarrhoea either alone or in combination with some ill-defined cause such an atrophy, debility, convulsions, teething, old age, etc., and also those due to epidemic or summer diarrhoea, epidemic or zymotic enteritis, intestinal or enteric catarrh, gastro-intestinal or gastro enteric catarrh, dysentery, dysenteric diarrhœa, cholera nostras, cholera infantum, and choleraic diarrhœa, together with certain cases of gastric and intestinal inflammation which special inquiry has shewn to be due to zymotic enteritis.

Of the 166 deaths due to diarrhoea no fewer than 131 were in children under 1 year of age, and 24 in children between the ages of 1 and 5. The huge percentage of children who have died from diarrhoea is thus at once apparent, for no fewer than 79 per cent. of the total deaths from diarrhoea occurred in children under one year of age. The death-rate in the Borough as a whole from diarrhoea was 1.84 per thousand of the population, the localities suffering most heavily being Spring Bank Ward 3.23, and Heaton Lane, where it reached 3.06, Lancashire Hill coming also high up on the scale with a rate of 2.74. All these wards are densely populated.

The first death of an infant from zymotic enteritis occurred in the week ending June 11th; this was followed by another death July 2nd, another July 16th, and 4 during the week ending July 23rd. During the whole of August and the first two weeks in September the illness was at its height. After this it dropped rapidly until by the middle of October the outbreak was practically over.

The readings of the 4ft earth thermometer coincided very closely with the death-rate from this disease, for one finds on a reference to the readings of that instrument that in the first week in July it had reached 52.7 degrees Fahrenheit. The weekly means of the succeeding weeks are as follows:—54.3, 56.1, 57.3, 58.0, 58.0, 57.9, 57.0, 56.6, 56.0, 56.0, 56.0, 55.1, 54.6, 53.7, 52.4.

Dr. Ballard, who first drew attention to this coincidence, stated that in his opinion epidemic diarrhea was in all probability due to the fouling of the soil with matters favourable to the growth of some living organism which in his opinion was the specific cause of epidemic diarrhea, which specific germ required a certain soil temperature for its growth and vitality; that the summer rise of diarrheal mortality did not become marked until the mean temperature recorded by the 4ft. thermometer had reached about 56 degrees Fahrenheit, and that as the ground temperature declined below 56 diarrheal mortality also declined. Ballard's conclusions have time after time been verified by the observations made in this town, indeed so much so that it is now my custom to watch the 4ft. earth thermometer in order to obtain an idea as to the most valuable time to issue precautionary leaflets relating to it.

In the Table appended I submit a statement of the localities affected with epidemic diarrhœa, and it is to be noted that an extremely large number of these localities are affected year after year by the same disease probably owing to the fact that conditions of soil pollution favourable to the growth of the diarrhœa microbe exist there.

Of the 166 deaths reported 126 (being the whole of those occurring in children under 2 years of age) were the subject of special inquiry by your Female Inspectors, who were instructed to visit each case and obtain answers to the following inquiries:—

STOCKPORT HEALTH DEPARTMENT.

DEATHS FROM DIARRHŒAL DISEASE.

To what extent was child fed at breast?

Year 1904.

How long adopted ? To what extent ?
What food used?
In cases where nilk used state—
(1) Was it boiled? (a) when received
(1) Was it boiled? (b) again before use
(2) Where it was purchased?
(3) Whole, (sweetened)
$ \begin{array}{c} \text{(3) Whole,} \\ \text{Skimmed} \\ \text{Condensed} \\ \end{array} \left\{ \begin{array}{c} \text{sweetened} \\ \text{unsweetened} \\ \text{brand} \\ \end{array} \right\} $
Condensed (brand)
Was any other kind of food administered \ What?
Was any other kind of food administered \{ What? \\ at any time? If so— \{ When? \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
What kind of bottle and tube used?
How were bottle and tube sterilised?
By whom was child tended?
Does mother work out? If so, at what?
To what do parents ascribe illness
Has the child suffered from any other illness since birth—what and when?
Other cases Diarrhog in House Ages Dates of illness
Other cases Diarrhaa in House.—Ages Dates of illness
Any recent cases of other illness in household in which Diarrhœa is a
symptom (Typhoid F., Consumption of Chest, Bowels, Brain, Glands, &c.)
if so, give age, sex, and date
CANIMADY COUDINION OF CURROUNDINGS
SANITARY CONDITION OF SURROUNDINGS.
House.
House. Back to back. Clean. Damp. Cellared. Overcrowded. Well lighted.
House. Back to back. Clean. Damp. Cellared. Overcrowded. Well lighted. Through. Dirty. Dry. Not ,, Not ,, Badly lighted Yard.
House. Back to back. Clean. Damp. Cellared. Overcrowded. Well lighted. Through. Dirty. Dry. Not ,, Not ,, Badly lighted Yard. Paved wholly. Cobbled wholly. Unpaved. Clean. Open.
House. Back to back. Clean. Damp. Cellared. Overcrowded. Well lighted. Through. Dirty. Dry. Not ,, Not ,, Badly lighted Yard. Paved wholly. Cobbled wholly. Unpaved. Clean. Open. Paved partly. Cobbled partly. Dirty. Confined.
House. Back to back. Clean. Damp. Cellared. Overcrowded. Well lighted. Through. Dirty. Dry. Not ,, Not ,, Badly lighted Yard. Paved wholly. Cobbled wholly. Unpaved. Clean. Open. Paved partly. Cobbled partly. Dirty. Confined. Drainage.
House. Back to back. Clean. Damp. Cellared. Overcrowded. Well lighted. Through. Dirty. Dry. Not ,, Not ,, Badly lighted Yard. Paved wholly. Cobbled wholly. Unpaved. Clean. Open. Paved partly. Cobbled partly. Dirty. Confined.
House. Back to back. Clean. Damp. Cellared. Overcrowded. Well lighted. Through. Dirty. Dry. Not ,, Not ,, Badly lighted Yard. Paved wholly. Cobbled wholly. Unpaved. Clean. Open. Paved partly. Cobbled partly. Dirty. Confined. Drainage. Trapped. Ventilated. Lately blocked?Smells from?
House. Back to back. Clean. Damp. Cellared. Overcrowded. Well lighted. Through. Dirty. Dry. Not ,, Not ,, Badly lighted Yard. Paved wholly. Cobbled wholly. Unpaved. Clean. Open. Paved partly. Cobbled partly. Dirty. Confined. Drainage. Trapped. Ventilated. Lately blocked?Smells from?
House. Back to back. Clean. Damp. Cellared. Overcrowded. Well lighted. Through. Dirty. Dry. Not ,, Not ,, Badly lighted Yard. Paved wholly. Cobbled wholly. Unpaved. Clean. Open. Paved partly. Cobbled partly. Dirty. Confined. Drainage. Trapped. Ventilated. Lately blocked?Smells from?Untrapped. Unventilated. CLOSET ACCOMMODATION. W.C. Pail. If W. or W.W.CCondition? Privy.
House. Back to back. Clean. Damp. Cellared. Overcrowded. Well lighted. Tbrough. Dirty. Dry. Not ,, Not ,, Badly lighted Yard. Paved wholly. Cobbled wholly. Unpaved. Clean. Open. Paved partly. Cobbled partly. Dirty. Confined. Drainage. Trapped. Ventilated. Lately blocked?Smells from?Untrapped. Unventilated. CLOSET ACCOMMODATION. W.C. Pail. If W. or W.W.CCondition? Privy. Distance from houseft. Does it require emptying?
House. Back to back. Clean. Damp. Cellared. Overcrowded. Well lighted. Through. Dirty. Dry. Not ,, Not ,, Badly lighted Yard. Paved wholly. Cobbled wholly. Unpaved. Clean. Open. Paved partly. Cobbled partly. Dirty. Confined. Drainage. Trapped. Ventilated. Lately blocked?Smells from?Untrapped. Unventilated. CLOSET ACCOMMODATION. W.C. Pail. If W. or W.W.CCondition? Privy.

method.

PLACE FOR KEEPING FOOD.
Where situate? Lighted? Ventilated?
Cleanliness
Any other matter requiring attention—animals, accumulations, nuisances generally;
GENERAL REMARKS.
•••••••••••••••••••••••••••••••••••••••
(Signed)
M.O.H. REMARKS. (Inspector.)
•••••••••••••••••••••••••••••••••••••••
This inquiry elicited the following important particulars:—

1. That out of 136 deaths inquired into only 5 of the children were entirely breast fed; of these 5 cases one was a twin who had been delicate from birth, 2 probably took the illness from their mothers, and in 2 cases the children were also suffering from dentition troubles. The partially breast fed and the wholly bottle fed formed together 96.3 per cent. of the total deaths. This is precisely in accordance with the experience of almost every large town in the kingdom, and statistics such as these ought to prove

to demonstration that the hand-rearing of children is an extremely precarious

- 2. The deaths during the first few weeks were very low, but gradually increased in numbers as the eighth week is approached, and maintained a fairly high level until the ninth month is passed, after which they drop as shewn in table A.
- 3. A further classification of the method of feeding shews that of all those children fed entirely on the bottle more than one-half were fed on cow's milk alone, and about an equal number were fed on patent food alone or patent food plus cow's milk. (See table B).
- 4. The sanitary condition of the house and its surroundings in which fatal cases of diarrhoea occurred was also examined, particular attention being paid to the place in which food was stored. Although out of the 136 houses thus examined, 107 could fairly be classed as clean, and only 29 as dirty, when food storing places were made the subject of inspection it was found that in only 32 cases could it be termed satisfactory, the conditions being distinctly bad in 104. The bad conditions consisted of the following amongst others:—Insufficient ventilation, uncleanliness, too close proximity to fire places, insufficient light, bad paving—all these conducing more or less to the accumulation of undiscovered dirt—whilst in a number of cases there was no special place for the storage of food and a shelf or small cupboard over the sink was the only spot available. There was an undue proportion

DEATHS FROM DIARRHŒAL DISEASE, 1904.

Table A.—Distinguishing Cases in Children under 2 years of age, according to Age at Death.

				Wholly Breast-fed.	Partially Breast-fed.	Wholly Bottle-fed.
Deaths during	1st	week		_		1
,,	2nd	,,			Service of the same of	
,,	3rd	,,		THE RESERVE	military To the last	_
"	4th	"		-	2	2
,,	5th	,,		of less than the same	the Towns	and the latest terms
1)	6th	,,		les of the hou	m. In a few o	the city of the
,,	7th	,,		1	to illinote	1
,,	8th	"		-	5 2	3 7
"	9th	,,		d footbar was	2	
"	10th	22		34 only sind	he best shared	12
"	11th	22		and a seed	the of head one	-
"	12th	"		1	-	8 2
11	5th	mont	n	1	4 11	4
"	6th	17		1	6	6
"	7th	"		1	3	6
,,	8th	"		1	3	6
"	9th	17			3	7
11	10th	"				i
***	11th	,,		-	3	2
"	12th	,,		-		_
Over 1 and un		year		new to be sent	14	6
Totals				5	. 57	74

TABLE B .- FEEDING.

Bre	east.	Bottle entirely.						
Wholly.	Partially.	Cows' Milk alone.	Cows' Milk and Patent Food.	Patent Food alone.				
5	57	40	16	18				

TABLE C .- SANITARY CONDITION OF HOUSE AND SURROUNDINGS.

		Plac	Food-storing Place.		rd.		odation.	Drainage.	
						Good.			
107	29	32	104	90	46	67	69	98	88

Ten: 1555.

of dirty yards, and of bad closet accommodation and bad drainage (as the table shows), all these favouring contamination of mirk and other food which was the principal diet of the child. (See table C).

- 5. Another important part of the inquiry related to the amount of attention which was possible for the mother to give to the children. It was found that 94 cases out of 136 fatal ones were attended by their mother, and 42, or nearly one-third, by others, the amount of whose interest in the children varied considerably. A curious feature of the information derived from this part of the inquiry is that, although 112 mothers were occupied at home in merely looking after the house, only 94 of those mothers are recorded as tending their babies, leaving 18 mothers who, although their sole occupation was housekeeping, failed to carry out what one would think should have been their primary duty, viz., that of looking after their infant, this duty being relegated to some other member of the house. In a few of the cases this somewhat startling feature was probably due to illness.
- 6. In 111 cases where hand feeding was resorted to, and where bottles were used, it was found that 34 only used the boat-shaped bottle without tube, and 77, or more than two-thirds, used the old-fashioned bottle with the dangerous long tube.
- 7. In only 78 cases out of the total number inquired into was any attempt made at sterilisation of the milk. In only three cases was the milk boiled both when received and again before being used. In 29 cases the milk was boiled only when received into the house, and in 46 cases it was only boiled immediately before use.

There is practically nothing new to be learnt from these figures but they certainly serve to emphasise, and that most strongly, the statements which have been made from time to time as to the conditions favouring infantile diarrhœa and diarrhœal mortality. Those conditions are sufficiently pointed out in the remarks which have just been made.

In regard to the preventive measures which were taken during the prevalence of this fatal disease it may be stated that the temperature of the 4ft. earth thermometer was carefully watched, and in the 28th week of the year when it had reached a height of 54.3 degrees Fahrenheit, over a thousand diarrhea handbills giving simple worded hints on the precautionary measures to be adopted, were distributed from time to time in the localities which the weekly death returns and other information which reached the department showed to be specially affected. In addition to this no less than 1,420 houses in which births had quite recently occurred were visited by your Female Inspectors, and advice was tendered and plainly worded handbills left dealing with the subject of infant feeding and infant rearing generally. Those cases where infants were found to be hand-fed and also delicate were revisited a number of times, and efforts were made to ensure the adoption of this advice, but, as is frequently the case, young mothers were found to be more easily led by ignorant neighbours than by the condensed experience of the whole medical profession.

As suggestions for the prevention of the recurrence of this serious state of affairs, one can do little more than advise the continuance of those measures which are in force here at the present time, viz., visitation of new births, of houses in which diarrhea is known to exist, the circular of advice to mothers on infant feeding, and the continuance of the admirable system of lectures on infant hygiene, which your Sanitary Committee initiated on the advice of your late Medical Officer, Dr. Charles Porter. The question of the provision of an infants' sterilised milk depot is one which might with advantage be considered by your Sanitary Committee. Custom and prejudice play a highly important part in the treatment of infants, and it undoubtedly dies very hard, but it is sincerely hoped that a persistence in the measures which your Committee have already in force will in course of time bear excellent fruit.

Ward	Street	Day of Month Month	War	d Street	Day of Month Month
7	Middle Hillgat	e261	3	Church street.	227
14	Lowndes lane.	242	10	Ladysmith stre	eet227
	(Parkside Asyl 2 St. Peter's	Sq 163	7	Daw Bank	$ \begin{pmatrix} 237 \\ 28 \\ 48 \\ 118 \end{pmatrix} $ cases
1	Lloyd street .	$ \cdot \left\{ \begin{array}{c} 215 \\ 98 \end{array} \right\} \begin{array}{c} 2 \\ \text{case} \end{array}$	es		(24.7)
	Hatherlow stre		4	Swann street .	
(1	Mt. Pleasant st	reet 56) 2			(89)
2) :	Tidswell's cou	reet 56 art, t st. 59	s 1	Bury street	267
	Johnson street		7	Clayton street.	267
	London square		2	Gt Egerton st.	$ \begin{bmatrix} 277 \\ 249 \\ 710 \end{bmatrix} $ cases
11	Leek street	157	2	Bridgefield stre	eet277
4 1	Barr's court, Fountain str	reet.167	10	Randolph stree	
7 1	Mount street.	187		Bussell court,	(00 7) 0
1]	Fern street	197	2	rieaton tane.	$$ $\begin{cases} 287 \\ 238 \end{cases}$ $\begin{cases} 2 \\ cases \end{cases}$
1 1	Hr. Union stre	et207		Heaton lane .	(238)
3 8	Short street	$$ $\begin{cases} 217 \\ 128 \end{cases}$ case	4	Hill street	$ \begin{bmatrix} 287 \\ 149 \end{bmatrix} $ cases
			7	Queen street V	V287
8 1	Pine street	$ { 217 \atop 48 } _{case}^{2}$	s 10	Booth street	287

Year 1904.

Ward	Street, Day of Month Month	Ward Street Day of Month Month
	Bankfield street $\begin{cases} 297\\ 38\\ 78 \end{cases}$ a cases	10 York street 38 8 Hooley's court, Grenville street. 48
5	Chestergate ${297 \brace 99}$ cases	10 Philip street 48
7 &8	King street W., $\begin{cases} 297 \\ 308 \end{cases}$ cases	15 Bolton street 48
5	Waterloo road307	6 George street 78
		8 Bow street 88
6	Newbridge lane307 ,,,,138 Brook's court Newbridge lane.149	10 Lucy street 98
(Newbridge lane.149	11 Mottram street 98
6	Grimshaw st $\begin{cases} 307 \\ 248 \end{cases}$ cases	15 Moston street 98
4	Carrington road317	8 Ince street108
6	Turncroft lane317	8 Garrett street $\begin{cases} 108 \\ 148 \end{cases}$ cases
8	Morley street317	8 Brinksway108
11	Higher Hillgate $\left\{ \begin{array}{l} 18 \\ 108 \end{array} \right\}$ cases	3 (Plover court, Hesketh street118) 3 Hesketh street288 cases 3 , , ,179
1	Dinting street 28	3 (Hesketh street258) cases179)
2	Roscoe's yard, George's road 28	7 Holborn street118
2	Railway street 28	8 Ducie street118
4	Queen street 28	11 Edward street118
7	Lowe street 28	12 Briscoe street118
8	Brook street west28	12 Spring gardens
0	DIOOR Street West26	yard11,8
16	Weston street $\begin{cases} 28 \\ 58 \\ 228 \end{cases}$ cases	14 Gt. Moor street128
0	(2207	16 Ann street $\begin{cases} 128 \\ 199 \\ 510 \end{cases}$ cases
2	Vaughan road 38	(511120)
4	Portwood Hall place 38	1 Higher Bridge street138

Year 1904.

War	d Street Day of Month	War	d Street Day of Month Month
6	Marple street138	6	Victoria road238
9	Herbert street138	12	(Union) Canal street248
11	Adcroft street $\begin{cases} 138 \\ 218 \end{cases}$ cases	2	Lower Bury st268
1	Grafton street148	4	Gt. Portwood st268
(Moss court, Port street148 2	12	Stephen street268
2	street148 2 cases Port street278	3	Dodge hill278
8	Gradwell street148	6	Vulcan street278
		6	Holly street278
8	Cooke street148	11	Ardern Grove278
12	Rosemary lane148	7	John street288
16	Kendal street148	9	Cain street288
5	Holt's place, Lawrence street 158	8	Wood street ${298 \atop 199}$ cases
13	Cale Green 15 8	8	Kingston street293
3	Providence street 168	8	Lever street298
10	Castle street $\begin{cases} 168 \\ 89 \end{cases}$ cases	4	Marsland street318
12	Read street188	4	Ashton's court, Ashton street 19
14	Charles street198	3	Baker street 29
2	Brown street208	10	Oliver street 49
3	Athol street ${218 \atop 59}$ cases	10	Chatham street 59
14	Hempshaw lane218	1	Denbigh street 69
/		4	Avenue street 69
6	Hanson's terrace, New Zealand rd228 2 cases	16	Coronation street 69
(New Zealand road 79)	3	Lancashire Hill 79
13	Violet street 22. 8	2	Hope street 89

Ward	1 Street	Day of Month	Month	Ward	l Street	Day of Month	Month
7	Cross street p	lace 10.	9	12	Bramwell str	eet23.	9
(Brunswick str	eet 13	. 9) .	8	Lottery stree	t25.	9
2	Brunswick str Terrace place Brunswick	ot 14	case	s 13	Lyme street	29.	9
	Oak street			12	Hall street .	1	.10
				14	Richardson s	treet 1	.10
12	Upper Brook			8	Back Brook	st 8	.10
10 }	Shaw road	\ 26.	9 case	s 5	Orchard stree	et10	.10
13	Wellington gr	ove19.	9	11	(Union) Unio	n st 18	.10
7	Tarker street	20.	9	12	Corbishley's	ct.,	10
11	Ardernfield st	reet 20.	9		Angel stree	et 2	.12

Scarlet Fever.

The town was again seriously overrun by scarlet fever during the year. The epidemic of the previous year continued into 1904, and scarcely showed any abatement at all until the end of November. A somewhat curious feature in connection with this is that another disease, erysipelas, which is known to be closely associated in its etiology with scarlet fever, was also prevalent to a much greater extent than usual during the year, and was particularly prevalent during September, October, and November, when scarlet fever was at its maximum. The notifications of scarlet fever received month by month are shown in the accompanying statement:—

January	46	July	50
February	31	August	
March	26	September	
April		October	99
May		November	
June	31	December	33
Total		587	

There were never any serious extensions of the disease, and in no single case were we able to trace a spread by means of milk supply, school infection, or the like. Time after time there would appear to be a suspicious grouping of cases round some particular school or milk supply, etc., and at once a detailed inquiry would be made into this, but in no single case was the department able to show any spread of the disease in this manner. The record of the Borough for scarlet fever during the last four years has been a serious one, and the same remarks as those just made are applicable to all the previous yearly records. I cannot but think that during these last four

years the town has been suffering from one of those waves of prevalence of the disease, the causation of which is not understood, but is probably connected with some obscure meteorological or telluric conditions. I have endeavoured to ascertain whether this prevalence of scarlet fever during the past few years had any connection with the rainfall, but although a considerable amount of time and labour has been expended in collecting and examining the data at my disposal, I have not been able to discover yet any link binding the two phenomena together. It is a fairly well established fact that the mortality from scarlet fever depends upon the rainfall, being higher in dry periods and lower in wet periods, although the relationship between the two things has not been so well maintained in figures relating to recent years. But the same relationship does not exist, at any rate so far as my statistics go to show, between the prevalence of scarlet fever and the rainfall—in fact there seems to be no relationship at all between the two things.

The deaths from scarlet fever at all ages have numbered 21 during the year, 16 of these being in children between 1 and 5 years of age, four between the ages of 5 and 15, and one between the ages of 15 and 25. It would serve but little good purpose to enumerate once again the measures which have been taken in dealing with cases of scarlet fever. A large number, viz., 241, were treated in the isolation hospital. A more rigorous inquiry has been made into return cases of scarlet fever, of which 11 occurred during the year, and the following statement contains a short resumé of the facts ascertained on inquiry. All inquiries cover, amongst other things, the date of appearance and date of cessation of otorrhoea, rhinorrhoea, eczematous sores on face, particularly round mouth, nose, ears, etc, enlarged cervical glands, enlarged tonsils, the existence of any so-called "secondary" sore throat during convalescence, etc.; and a careful inquiry is made as to whether any of these conditions were present when the patient was discharged from hospital:—

- 1. M. C. First ill February 15th, rash February 16th. Previous sufferer E. C., 41 days in hospital, discharged with tonsils chronically enlarged. Slight sore throat recurred about a fortnight after patient's return home. Separate eating utensils were not reserved for patient's sole use, and, in addition, patient was kissed, etc., by M C., who subsequently developed the disease.
- 2. P. A. First ill April 1st, rash April 2nd. Previous sufferer F. A, 50 days in hospital, no complications whatever, no recurrence of symptoms after return home. Was kissed, etc., by P. A. on day of discharge from hospital.
- 3. E. A. First ill June 12th, rash June 14th. Previous sufferers F. and L. A., both 43 days in hospital, no complications on discharge, no recurrence of symptoms after return home. No reason could be assigned for the recurrence of this return case.
- 4. E. B. First ill August 14th, rash August 15th. Previous sufferer, E. T., 49 days in hospital, no complications on discharge, and no recurrence of symptoms afterwards. No reason could again be assigned for the return case.

- 5. G. C. First ill August 19th, rash August 20th. Previous sufferers A. and J. C., 42 days in hospital, no complications, no recurrence of symptoms. No reason could be assigned for return case.
- 6. A. B. First ill August 30th, rash same day. Previous sufferer H. B., 46 days in hospital. This patient frequently suffers from nose bleeding, and is said to have "blotches" constantly appearing on the face. Both of these conditions reappeared shortly after patient's return home.
- 7. D. G. First ill September 6th, rash September 7th. Previous sufferer L. G., 42 days in hospital, no complications on discharge, no recurrence of symptoms afterwards, patient returned at once to his home, did not occupy separate bed, was not supplied with separate eating utensils, and was frequently kissed and fondled by D. G.
- 8. D. P. First ill November 2nd, rash November 3rd. Previous sufferer E. P., 10 weeks in hospital; suffered from discharging ear, this was cured for over a week prior to discharge, and there was no recurrence afterwards. Patient did not occupy separate room or bed, and did not have separate eating utensils.
- 9. I. A. First ill November 5th, rash same day. Previous sufferers E. and S. A., in hospital 48 and 43 days respectively, no complications on discharge, patients returne? straight home, and about a week after their return commenced to have a slight discharge from the nose.
- 10. H. G. First ill November 24th, rash November 25th. Previous sufferer F. G., nice weeks in hospital, has slight rhinorrhoea which is said to have been present on child's discharge from hospital, though this does not appear to be so from the hospital records. Patient returned straight home, occupied a separate bed, but not a separate bedroom, and did not have separate eating utensils etc., reserved.
- 11. E. H. First ill November 27th, rash November 29th. Previous sufferer M. H. 43 days in hospital, discharged from hospital November 1st, 26 days before return case commenced to be ill. Suffered from ear discharge and had a small abscess of neck; these conditions were cleared up prior to discharge. Patient returned straight home, did not have separate bedroom or separate eating utensils, etc., and was kissed and fondled by person since attacked.

I am convinced from a considerable experience that the bath on discharge is a mischievous thing, and can cause great danger to the discharged patient as well as to those with whom he comes in contact unless carried out in the most careful manner possible, and even then there is always the possibility of harm arising.

Diphtheritic Disease.

This group includes both diphtheria and membranous croup. Of the first there were 35 cases notified during the year, and of the second five, making

a total in all of 40 cases of diphtheritic diseases. The record for 1904 is slightly worse than that for 1903, but at the same time it is for a town of this size a low and satisfactory record, and one which bears very favourable comparison with the records of towns in similar circumstances and of a similar population.

The medical practitioners have time after time expressed their high appreciation of the action of your Sanitary Committee in supplying diphtheria antitoxin free of charge for both curative and immunising purposes to all cases where the patient has not been able to pay for a private supply. In a few cases, and only in a few, medical practitioners have waited a little too long in order to verify the diagnosis before administering antitoxin, but the number of such cases is getting considerably smaller, and I think it may be said that it is fully realised now that the best results are obtained from the early use of antitoxin whether the diagnosis is certain or uncertain; if it be uncertain no harm is done by the injection of antitoxin, if it be certain the earlier it is used the better are the results obtained, and the less antitoxin is requisite The cost to the Committee of supplying this serum has been about £30 during the year. In addition to its life saving properties diphtheria antitoxin cuts short the infective period of the disease, and thus limits its spread. There is thus a double saving effected, and the Committee may rest assured that the money spent for this purpose confers a benefit on the community as well as on the individual. In the tabular statement following here the sanitary circumstances of the houses invaded by diphtheria are submitted. A considerable number of the cases may be seen to be associated with defective drainage and offensive conditions connected with privy middens, defective paving of yards, passages, etc. Fifteen of the cases reported had a fatal termination, an unusually high percentage.

Sanitary Circumstances of Notified Cases of Diphtheritic Disease, 1904.

Remarks.			Defective drainage & offensive privies.		: :	:	Yard and passages in very dirty state.	Fatal. Defective	:	Fatal.	:
Paving of	Karth	Tall	do.	Nil.	Paved.	Earth.	do.	do.	do.	Nil.	Nil.
Paving of Vard	Florated	ruggen.	Partly flagged.	House in own grounds	Paved.	Flagged.	Partly flagged	Partly paved.	Flagged.	Paved.	do.
Closet		thy o yus. away	M. Privy 8 yds. away	W.C. inside and outside	Privy 5 yds. away	M. Privy 6 yds. away	W. C. outside	Privy 8 yds. away	Privy 6 yds. away	W.C. outside	Privy 4 yds. away
Sex.	1 >	i	M.	E.	E.	M.	M.	M.	편.	F.	F.
Nard No.	0	01	00	19	C)	40	22	9	C1	6	4
Vard No.	44	er	16	14	4	15	15	10	15	1	10
Street.		Sandrola, North Reddish	Brook Street, South Reddish	Bramhall Lane	Mersey Street, Portwood	Lingard Street, North Reddish	Priory Lane, North Reddish	Florist Street	Barlow Lane, North Reddish	Farmer Street	Shaw Heath
Folio	.	0	47	55	73	95	101	122	123	116	164

Remarks.	Fatal.	Fatal.	Fatal. Wet and offen- sive privies and yard paving defective.	:	:	:	Fatal.			:
Paving of Passages.	Paved.	Flagged.	Nil.	Nil.	Paved.	Flagged.	Nil.	Paved.	Nil.	Nil.
Paving of Yard.	Paved.	Flagged.	Partly paved.	Flagged.	Partly paved.	Flagged.	do.	Pavad.	Partly paved.	do.
Closet Accommodation.	W.C. outside	Privy 7 yds away	M. Privy 7 yds. away	Pail-privy 8 yds. away	Privy 6 yds. away	W.C. outside	W.C. outside	Privy 2 yds. away	Privy 12 yds. away	Privy 8 yds. away
Sex.	댠	M.	M.	편.	E.	표	E.	压	E.	E
Ward No.	63	13	C4	27	13	11	9	62	14	10
Ward No.	89	9	11	16	13	15	C1	13	00	16
Street.	Roscoe's Court, Old Road	George Street, New- bridge Lane	Hindley Street	Reddish Road, South Reddish	Wellington Grove	Edward Street, North Reddish	Norris Street	Warren Road	Brook Street West	Broadstone Road, South Reddish
Folio No.	172	204	241	244	247	248	282	331	356	399

				r car	100						OI
Remarks.	Defective drainage.	Fatal. Offensive smells from man- hole opposite house	:	Fatal.	:	:	:	:	Fatal.	Fatal. Defective drainage.	Fatal.
Paving of Passages.	Nil.	Earth	Nil.	Earth	Paved.	do.	Earth.	Paved.	do.	Nil.	Earth.
Paving of Yard.	Partly paved.	Paved.	House in own grounds.	Flagged.	Partly paved.	do.	Partly cobbled.	Flagged.	Partly paved.	do.	Paved.
Closet Accommodation.	Pail-privy 10 yards Partly paved.	W C. outside	W.C. inside and outside	Privy 8 yds. away	W.C. outside	W.C. outside	Privy 10 yds. away Partly cobbled.	Privy 5 yds. away	W.C. outside	Privy 8 yds. away	F. W.C. outside
Ward No. Age.	퍈	M.	斑	표	E.	M.	M.	E.	M.	표.	표.
Age.	53	œ	15	7	8	37	7	33	œ	ಣ	က
Ward No.	15	12	14	4	113	10	CI	-	18	00	62
Street.	Gorton Road, North Reddish	Athens Street	Davenport Park	Carrington Road	Countess Street	Florist Street	Heaton Lane	Clement Street	Winifred Road	Wood Street	Travis Street
Folio No.	429	530	556	999	563	626	637	648	.665′	670	671

03				Yea	ar 1904	4.			
Remarks.	Fatal, Drains required cleansing.	:	Infected by contact with case 700.	:	Defective connections to W.C.	Drains required cleansing.	Fatal. Drains required cleansing.	Fatal.	Fatal. Offensive privies and slop- sodden yard.
Paving of Passages.	Paved.	do.	do.	Earth.	Nil.	Paved.	Nil.	Paved.	do.
Paving of Yard.	Partly paved.	do.	do.	do.	do.	do.	Paved.	do.	Earth.
Closet Accommodation.	W.C. outside	do.	do.	M. W.C. inside and outside	do.	W.C. inside	W.C. outside	do.	Privy 6 yds. away
Ward No. Age. Sex.	M.	E.	F	M.	E.	E.	Ei.	M.	E.
Age.	5	36	00	=======================================	26	9	10	ಣ	00
Ward No.	00	00	8	13	10	C4	œ	15	14
Street.	Grenville Street	Yule Street	Grenville Street	Beech Road	Greek Street	Heaton Road	Brinksway	Buckley Street, North Reddish	Alldis Street
Folio No.	700	726	735	992	824	825	855	885	887

Typhoid Fever.

During 1904 we had again a fortunate year in respect of this disease, for there were only 37 cases notified of typhoid fever, and 1 of continued fever, a disease which is usually regarded as identical with typhoid fever though of a milder and indefinite type. For a number of years now the cases of typhoid fever reported have been few in number, a condition of things which may be due to some causes of which we have no knowledge, but which to my mind is most | robably associated with the gradual abolition of those filthy and insanitary structures known as privy-middens. It is a well known that waterclosetted towns throughout the whole country have as a rule a much lower attack rate and death rate from typhoid fever than privy-midden towns, and certain figures (appended hereto) which have been collected in this town for the past 11 years afford sufficient evidence that privy-middens polluted with typhoidal excreta play a prominent part in favouring the spread of the disease. This statement continued into the year 1904, and embracing figures which cover the period 1894-1904, both years inclusive, shews that secondary cases are common in premises where the only receptacle for infected excret, etc, is a privy-midden. Prof. Delepine has shewn that the disinfection of these structures is a practical impossibility. It remains only to be said that during the two months September and October nearly half the notified cases occurred. In a few of the cases which occurred at this time of the year evidence of a vague character was obtained as to infection having been received at health resorts by persons who were there on a holiday and who consumed shell-fish of questionable origin.

In 76 houses 1 subsequent case occurred, viz. :-

In 57 houses within a few weeks.

" 13 " about 1 year later.

" 3 " , 2 years later.

" 1 " " 3 " ,

" 2 " , 4 " ,

In 22 houses 2 subsequent cases occurred viz.:-

In 18 houses within a few weeks, " 1 house about 1 year later. " 3 houses " 2 years "

In 4 houses 3 subsequent cases occurred, viz.: -

In 3 houses within a few weeks. ,, 1 house about a year later.

In 3 houses 4 subsequent cases occurred, viz.:—

2 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 7 subsequent cases occurred within a few weeks.

,, 1 ,, 8 ,, ,, ,, ,, ,, ,, ,,

Tubercular Diseases.

The death-rate from this group of diseases for 1901 was 2.07, a figure which is distinctly lower than that for 1903. The rate from phthis or consumption of the lungs alone was 1.22, the lowest recorded in the Borough.

The rate for those deaths due to other tubercular diseases was 0.85, slightly in excess of the previous year's record. The highest death-rate from phthisis was in St. Mary's Ward where it was 2.59, more than double that for the Borough as a whole. Some high rates were also recorded in Lancashire Hill Ward 1.88, Spring Bank Ward and St. Thomas' Wards, in both of which it was 1.72. The lowest rate was that recorded in Edgeley Ward 0.60, and Hempshaw Lane, Heaviley, and Reddish South Wards came next with rates of 0.78, 0.79, and 0.85 respectively. The total number of deaths from tuberculosis of the lungs at all ages was 110, and it is to be noted that 103 of these deaths occurred at ages between 15 and 65, that is during the wage-earning period of life. Of the other tubercular diseases, tuberculosis of the brain or its linings was responsible for 27 deaths, mostly in children under 5 years of age; tuberculosis of the intestines for 24 deaths, again mostly in children under 5 years of age; general tuberculosis for 19 deaths; scrofula for 5 deaths; and tuberculosis of the larynx or wind-pipe for 2 deaths.

The voluntary notification of puthisis has unfortunately lapsed almost into disuse, but your Committee has recently authorised me to once more bring it into operation, and to circularise the medical practitioners accordingly. In cases which come to our knowledge either by voluntary notification or otherwise, a small card giving simple precautions to be observed by the sufferer is left at the house and explained to the relatives by the Inspector, and all possible assistance is given in that frequent and periodical disinfection of premises which is so necessary to prevent both the infection of others in the same house and the reinfection of the patient himself. A considerable number of premises in which deaths have occurred from tuberculosis have been disinfected by the Department.

An attempt is being made to find out the tubercular infected areas in the Borough, and for that purpose a list has been kept covering the last 11 years shewing localities in which deaths from consumption have occured in the same house in succeeding years. These premises receive special attention from the Department. The list shewing these localities is appended herewith:

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

Situation of house.	1894	1895	1896	1897	1898	1899	1900	1901	1905	1908	1904
Barratt Street				1						1	·
Beard Street					1					1	
Bentley Street		1			1						
Bury Street											
Clarendon Street								1		1	7
Ellen Street											
Grafton Street											
Ince Street											
Manchester Road (House A)											
do. do. (,, B)	***	***		1	***	1					***

a	4	92	96	1	8	66	0	10	5	33	4(
Situation of house.	1894	1895	1896	1897	1898	1899	1900	1901	1903	1903	1904
Old Road		1			1						
Reuben Street			1		1						
Rowland Street							1		1		
Smith Street (House A)	1	1									
Do. (,, B)								1	1		
Tatton Road South		1									1
Bridgefield Street			1						1		
Brown Street									• • • •	2	• • • •
Brunswick Street					• • • •	•••	2		• • • •	•••	
Chorlton Street	1	• • • •	1	• • • •	• • • •	***	***				•••
Great Egerton Street	•••			1	•••	• • • •	1	1	•••	* * *	
Heaton Lane Travis Street		1	•••	1	• • •	• • • •	•••	•••	2	1	•••
		•••			1				1		
Wellington Road North Wyatt Street									1	1	
Adlington Square				1					1		
Churchgate				2							
High Bank Side		1					•••			1	
High Street (House A)	1							1			
Do. (,, B)							1		1		
Tatton Street		1							1		
Edwin Street									1	1	
Grimshaw Street	2										
Newbridge Lane (House A)								1		1	
Do. (,, B)										2	
Bann Street		1								1	
Chestergate			2								
Daw Bank	1								1		
London Place (House A)		1	1				***	***			
Do. (,, B)		1	1		•••	•••			•••	• • • •	• • • •
Brinksway (House A)		1	1								
Do. (,, B)					1				1		
East Street (House A) Do. (,, B)		1		1							1
				1				1 2			1
Do. (,, C) Grenville Street			1			•••		1			
Lottery Street			1		1			1		••••	
Moss Street		1		1							
Lomas Street		1				1					
Stopford Street									2		
Booth Street (House A)				2							
Do. (,, B)			1								1
Bowden Street	1				1						
Carlile Street	1							1			
Chatham Street							1	1			
James Street	1					1					
Shaw Heath									1	1	
Edward Street (House A)			3			***					
Do. (,, B)							1				1

Situation of House.	1894	1895	1896	1897	1898	1899	1900	1901	1903	1903	1904
Higher Hillgate			1							1	
Middle ,,							2				
Angel Street			1				1				
Rosemary Lane (House A)							1	- 1			
Do (,, B)							1	1		1	
Shawcross Street						1	1				
Bramhall Lane (House A)									2		
Do. (,, B)								1			1
Heath Crescent								1	1		
Osborne Road		1					1				
Russell Street						1					1
Carrington Field Street								1			1
Dialstone Lane	- 1			1							
German Street			1		1	1					

Infant Mortality.

There were 520 deaths of infants under 1 year of age during the year 1904 in the Borough, a number which is equal to 203 deaths of infants per thousand births. In other words this means that more than one-fifth of the children born did not survive the first year of life. This is undoubtedly a heavier mortality than we have had for some three or four years, and is far too high even for a manufacturing town. The very heavy death-rate which we have had from infantile diarrhea is responsible for this high figure, there being, as stated in a previous part of the Report, no fewer than 136 deaths from diarrhea in children under two years of age, and 131 in children under one year of age, that is to say exactly one-fourth of the total infant deaths were due to one preventible cause, viz., diarrhea.

The record for 1904 is greatly disappointing, for during the previous four years a steady decline had been taking place in the infant mortality. Your Female Inspectors have done everything that can be done to cope with this serious state of affairs, and as may be seen from their record of work given later in the Report, nearly 1,500 newly born children have been visited and their mothers have been instructed as far as was possible in the elementary principles of feeding and management of infants. It is only by a continuance of efforts such as these that we can hope to reduce this fearful death-rate.

Of the other causes contributing to this high infant mortality two in particular are worthy of some slight notice, viz., those included under the general heading of atrophy, debility and wasting, and those due to premature bir.h The remarks made under the heading of infantile diarrhœa apply with almost equal significance to the deaths from the first class mentioned. The deaths from premature birth have for a large number of years been high in Stockport, and I cannot but think that the employment of married women in factories, and their continuance at work almost up to the date of confinement is responsible for many deaths from premature birth, and also for the

feeble condition of many of the children born. Convulsive diseases have been responsible for 30 infant deaths, and acute bronchitis 36, whilst as minor causes we have enteritis or inflammation of the bowels causing 20 deaths, broncho-pneumonia 21 deaths, and various forms of tuberculosis 20 deaths.

In the report of the Female Inspectors some noteworthy figures are presented shewing what an enormous advantage breast-fed children possess over those reared by hand. It may be mentioned here that out of 977 breast-fed children only 20 or 2.0 per cent. were classed by the Female Inspectors as delicate in health, whilst of the 363 artificially fed children no less than 248 or 68 32 per cent. were delicate. The following is a summary of the infant mortality in Stockport during the past 14 years:—

De	Death	Death-rate			
Year.	1 year.	per 1,000	births.		
1891	522		224		
1893	463		199		
1898	522		222		
1894	442		192		
1895	568		231		
1896	452		189		
1897	531		214		
1898	551		231		
1899	518		221		
1900	467		203		
1901	481		197		
1902	177		183		
1903	515		184		
1904	520		303 203		

The infantile death-rate in England and Wales during 1904 for the country as a whole was 146.

Deaths from Cancer.

The following list gives the deaths from cancerous disease and the parts of the system affected.

	Males.		Females.
Lip	1		
Jaw	2		_
Tongue	1	/	
Glands	2	*************	
Pharynx and Œsophagus.	2		1
Stomach	11		9
Intestines	1		4
I iver	6		8
Pan creas	1		_
Rectum	5		2
Larynx	2		-

	Jales.	Femals.
Breast		10
Uterus		19
Scrotum	1	—
Neck	1	
Heart	1	
Rodent Ulcer		2
Tibia	1	—
Locality not stated	1	1
Totals	39	56

I can only repeat the remark made in a previous report, that I think great public good might be effected by the circulation of simple information as to those slight affections which frequently precede cancer and develop into it, unless dealt with on proper lines.

Deaths in Cellar Dwellings.

There are 113 of these in the town, inhabited by 197 persons. As the deaths show these dwellings are occupied by old people or by young and poor married couples, hence the deaths occuring in them are, in the main, those of aged people or young infants.

A statement of the deaths which have occurred in these dwellings during the past ten years is subjoined.

Cause of Death.	Chronic Bronchitis	Heart Failure	Parturition, Post Partum, and Hæmorrhage	Bronchitis, Cardiac Failure	Found dead, Natural Causes, accelerated by want of care and	Natural Causes, Bronchitis	Bronchitis, Asthma	Epidemic Diarrhæa	Cardiac Dropsy	Apoplexy	Senility	Bionchitis, Exhaustion	Apoplexy
Occupation.	Gardener	Army Pensioner	:	Collier	Reeler in Cotton Mill	:	:.	:	::	:	:	:	:
Sex. 0	M	M Arm	ĒΨ	M	E C	E	F	H	H	H	Ħ	M	F
Age.	29	29	38	99	62	202	69	7 m'nths	59	55	77	2 m'nths	69
Where Died.	Cellar under 9, Chatham Street	3, Union Street	105, Old Road	30, Union Street	85, Old Road	127, Old Boad	85, Old Road	26, Union Street 7 m'nths	21, Bamford Street	9, Angel Street	13, Bamford Street	22, Newbridge Lane 2 m'nths	49, Bamford Street
	Cellar u	:	:	11	• • •	:		"					*
Date of Death.	1904. Jan. 23	Feb. 11	June 7	1908. Jan. 9	Feb. 24	May 10	,, 26	August 31	Dec. 15	Jan. 6	October 2	Nov. 6	Dec. 3

Date of Death.						
	M	Where Died.	Age.	Sex.	Occupation.	Cause of Death.
1901.				-		A Company of the Comp
May 23	Cellar under	Cellar under 28, Newbridge Lane	4 weeks	E	(See year 1909)	Natural Causes, probably Con- vulsions (Inquest)
August 21		55, Union Street	5 m'nths	M	:	Marasmus
Nov. 15		12, Union Street 10 m'ths	10 m'ths	H	:	Premature Birth
1900. Feb. 9	2	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	H	:	Ac. Bronchitis
1899. August 13		150, Hesketh Street	78	M	Gen. Labourer	Senile Decay
., 22	:	22, Brewery Street 7 m'nths M	7 m'nths	M	:	Starvation (Inquest), Illegitimate
Oct. 12		4, Wesley Street 14 m'ths	14 m'ths	Œ	(See year 1895)	Bronchitis (Illegitimate)
1898. August 29	=	18, Brewery Street 8 m'nths	8 m'nths	. E	i	Teething-Bronchitis
1897. March 19		1, Adcroft Street	92	M	Hawker	Syncope following Bronchitis

Gastrie Catamb	Gasario Caratin	Dentition and Convulsions	Marasmus, Convulsions	Natural Causes (Inquest)	Senile Decay	Whooping Cough	Bronchitis	Bronchitis and Inflammation (Inquest)	Bronchitis (Illegitimate)	Tabes Mesenterica, Exhaustion	Marasmus	Inanition from Birth (Illegitimate)	Right Hemiplegia, Cerebral	M	
a ob a constant	ocavenger	:	:	Carter	Army Pe'sion'r	:	Hat Trimmer	:	:	:	(See year 1903)	(See year 1899)	Mill Operative.	(See year 1903)	
>	Ti.	Œ	M	×	M	M	Ħ	Ħ	M	M	压	M	M	H	
20	20	1	8 m'nths	62	18	5	09	5 weeks	6 m'nths	4 m'nths	5 m'nths	6 m'nths	29	85	
	Cellar under 55, Lancashire Hill	., 40, Union Street	", 29, Union Street	In a cellar at Christy's Mill	Cellar under 145, Old Road	", 10, Hart Street	" 15, Union Street	" 4, Hart Street	" 3, Angel Street6 m'nths	", 12, Old Gardens Street 4 m'nths	" 80, Union Street	", 4, Wesley Street	" 61, Lancashire Hill	", 30, Union Street	
	April 2	,, 29	August 19	1896. Jan. 3	April 8	,, 25	Sept. 28	Nov. 22	1895. Jan. 29	April 15	,. 20	June 26	August' 8	October 18	



	100		_			-							_			-				-	-		H	-	-		District.	Tipon	
																915	-								-				
CHEST OF DEATH.	10	Today.	1 and	100	Danet sector in	and :	March Spread	1	2		4	4		Ť		9	10	11	12	19 5	(i)	11	16	Totals	The same	Sec.	Date:	Take West Second	Rep.
																								-					
Zmene Pousso :																													
Statisfeet	54	4			1	40	11	1		1				1			8	2	4					11	-				15
Museles	65	30	0.0	5			-	11	3	10			4		1		*	4	3				**	65.					-
Soulet Fever	21		36	*	1				3	5			1		2		1	1	-		2	2		21					
Typica Ferri	100				-		-		2	1	-			-	7	1				1				11	100			1	
Inflamon (Epidemic)	-11.		7		-	*	20							2	1	9:									100			1	
Dightheria	12			9				1	2	1	1		1		2		1	X.	:1	1	1	1		15	-				
Estado es es es es es			1	1	2	2	44	244	3	-			3			1	2			1	1 .			11					7
Dischas, Dynastory	21	-61	12/				2	2	7	2		2		5	16	1	7	2	0		5		1	20					
Epidemia or Zymotic Esperitie	.55	100	12			3)	2	20	11:	.10	12	3	11.	30	* 1	1	*	2				1		27					
Parisis	7				7	7					1				1									2	1		4		
Tetanas	1				à						-20						1							10	200				
Other Alfred Discours	-																	200						***	10				
Syphile	3						-																						
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			I	1	INSTI	TUTIONS.		1		1
and der 15	.6	Totals	Death in outsid district belong ing to the Boroug	e Bishon Brown Memo rial	Infirmary	Union	isolation Hospit'l		8	
		o Oat	Towns	la par 40	y					
			28							
		18.								
										Z
		3								
		2								
		4								
		= 1		1						112
					17.72			1		

PART II.

Departmental.

PART II.

DEPARTMENTAL.

District Inspectorial Work.

During the year there has been a very considerable amount of general sanitary work done in the four districts into which the town is divided for this purpose. The districts of the Inspectors have been changed during the year in order to extend their experience and for other departmental reasons. A glance at the table will shew that the work of this portion of the department is not only extremely varied, but is such as to concern a considerable number of private interests, and therefore demands the greatest carefulness and tact in its execution. The total number of inspections of dwellinghouses nade for one reason or another has been 1,390, and insanitary conditions have been remedied in all these cases. Drainage defects have involved 2,316 visits; insanitary privy-middens have occasioned 3 678 visits of inspection; inquiries into infectious disease and visitation of infected houses have been made in 866 cases; no less than 716 privy-middens have been converted to water-closets, whilst in 63 cases pail-privies have had the receptacles renewed; in 921 instances courts or passages have been paved, drained or otherwise put into a sanitary condition; in a considerable number of cases house drainage systems have been thoroughly tested, and in 1,151 cases it has been necessary to have the system repaired or entirely reconstructed; a considerable number of other matters of minor importance, if one might so term them, have also been dealt with, such as the removal of offensive accun ulations and of arimals improperly kept, the cleansing of offensive water-courses, the fencing in of dangerous quarries, the overcrowding of houses, the reconstruction or repair of uninals, the renewal of dust bins, the cleansing of houses, etc., etc.

Your district inspectors have continued to do their work on the whole extremely satisfactory, and with a minimum of friction with property owners or agents. The fact of such a large amount of work being done with the issue of only two solitary summonses, both in reference to the same owner, speaks volumes for the care and tact which is exercised by these inspectors. In these two cases a summons was served owing to non-compliance of the owner of certain filthy and unwhol ome houses with a notice to cleanse the same; when the time came for the cases to go into court the owner acknowledged himself in the wrong and agreed to pay costs if the summonses were withdrawn; this request was willingly met.

The special work of the female inspectors receives separate notice in another portion of the report.

No. 1 No. 2 No. 3 No. 4 District District District Total I.—Special Complaints Received 89 52 26 50 217						
I.—Special Complaints Received 89 52 26 50 217						Total.
I.—Special Complaints Received 89 52 26 50 217						-
	-Special Complaints Received	89	52	26	50	217
II.—Inspections Made.	-Inspections Made.					
Dwelling-houses		474	294	245	377	1390
Cellar Dwellings 8 18 26	Cellar Dwellings		8	18		
Dangerous Quarries	Dangerous Quarries	6				
Schools	Schools					
Courts and Yards	Courts and Yards					
Privy-Middens	Privy-Middens	764				
Drainage						
Watercourses						
Miscellaneous 199 400 323 440 1362	Miscellaneous	199	400	525	440	1502
III.—Infectious Disease.	INPROTTORE DISPLEE					
Cases inquired into		236	219	193	218	866
Cases removed to Hospital. 119 99 106 62 386			0.000		0.0000000000000000000000000000000000000	
Smallpox contacts visited 114 174 85 88 461	Smallpox contacts visited				75,000	
Schools, &c., Disinfected 16 8 14 14 52						
IV.—Privies, Water Closets, &c.	-Privies, Water Closets, &c.				1	
Privies Repaired 4 66 9 36 115		4	66	9	86	115
,, Converted to W.C.'s 231 140 167 178 716			140	167	178	
Pail Closets repaired, &c 12 51 63		0.000			5.5.6	
Dustbins renewed	Dustbins renewed	150	46	30	38	264
V.—Miscellaneous. Houses Cleansed & Papered,	Houses Cleansed & Papered,	50	*0	***	100	000
or Limewashed		70	98	99	102	289
Houses unfit for habitation closed		10		0		1.4
Overcrowding of Houses		12		4		1.4
Abstad 0 19 0 17	11 . 1	9	13		2	17
Houses Repaired					2000	
Yards, Courts or Passages						
paved or repaired 115 31 69 65 280 Yards, Courts or Passages	paved or repaired	115	31	69	65	280
drained 93 90 103 42 328	drained	93	90	103	42	328
Animals improperly kept 8 13 3 9 33	Animals improperly kept		13	8	9	
House Drainage Tested 16 7 36 45 104			7	36	45	104
,, Repaired or	,, Repaired or		1	2000	-	
Reconstructed	Reconstructed					
Notices (informal) Served 193 107 93 114 507	Notices (informal) Served	193	107	- 93	114	507
				1		

Report by Female Sanitary Inspectors to Medical Officer of Health on Special Work done during 1904.

Visitation of Houses where Births have recently occurred. During the year 1,477 visits were paid by your two Female Inspectors to houses in which births had recently occurred. The information which your Inspectors are able to obtain as to these places frequently comes rather late, and thus they are not able to do the full amount of good which might perhaps otherwise be effected. On making these visits in 57 cases it was found that the children had died. In the 1,420 remaining cases careful inquiries were made as to the method of feeding and as to the general health condition of the child. The following startling figures were thus obtained:—

Breast-fed			 Total. 977
Partially	or 98 1% 57 or 71.25%	 or 2.0% 23 or 28:75%	 80
Artificially-fed		 248 or 68·32%	 363
	1,129	291	1,420
	-	-	

It is reported by the Inspectors that the proportion of breast-fed children is considerably greater this year. The breast-fed children can be seen at a glance to possess even at this early age an enormous advantage over those fed by hand. Even those partially fed on the breast exhibit a condition of health more than twice as good as those fed by hand. In the case of children found to be artificially fed and delicate in health your Inspectors paid a number of revisits and endeavoured to instil into mothers simple advice as to the best methods of feeding and rearing, accompanying this advice with practical demonstration as to how the things should be done. Printed cards on infant feeding and management drawn up by your Medical Officer of Health were distributed to all these houses, and it is stated by your Female Inspectors that they are greatly appreciated by the mothers, being generally hung up in the cupboard and constantly referred to. These cards, in addition to giving instruction as to infant feeding, also give directions for the simple treatment of croup, convulsions, burns, scalds, etc.

Lectures. In all 45 lectures on infant hygiene were given by your Female Inspectors. These are given, as is well known, to the elder girls' classes in public elementary schools. At the end of the course of lectures a simple examination paper is set, and these papers are submitted to your Medical Officer of Health. It cannot be denied that the teaching thus done by your Female Inpectors appears to go home, for the papers have invariably been most creditable, and show that the girls are deeply interested in the work. Considering how many of these girls are left in charge of infants for long periods of time, and how they are expected to prepare the child's food, etc.,

the work of teaching them how to do it cannot be otherwise than productive of great benefit. Prizes are given by your Committee for the best papers in the examination; and the scholars are allowed to take home with them at the end of the course of lectures the little text book relating to the subject.

Overcrowding. Twenty-five cases of overcrowding came to the knowledge of your Female Inspectors during the year, and everyone of these was abated in a short time. Some of the cases are of such a nature that their existence could scarcely be credited were it not so substantially verified. The following are the worst cases which have been dealt with during 1904:—

- 22, Wild Street. This house, with two bedrooms, was occupied by a family of nine father, mother, and seven children, oldest boy 17, oldest girl 18, and only one bed in the house. Those who could not get into the bed had to sleep on the floor.
- 7, Orme Street. Single house occupied by two families, each consisting of father, mother, and two children, eight in all, and only one bed in the house.
- 2, Lines Court. Single house occupied by father, mother, two grown-up sons and daughter. Two beds in the house.
- 2, Worsencroft's Court. Single house occupied by a man, his wife, and child; and another man and woman. Only one bed.
- 81, Daw Bank. Father, mother, and six children occupying one bedroom. When discovered there were two cases of diarrhoa in the house.
- 11. Albiston Place. Single house, occupied by father, mother, and six children.

Revisits. These are necessary in a considerable number of cases in order to ensure that the measures of cleanliness enforced on the visits of your Female Inspectors are not spasmodic, but are well maintained. A typical case of the good effected by these revisits can best be given in the words of one of the Female Inspectors herself:—

"Last year we had a very bad case of overcrowding in which a single house was occupied by two families, twelve persons in all. In addition to this the house was in a filthy state. One family moved out the day of discovery, and was lost sight of; the other family is now living in a double house, they have decent beds and bedding, and the house and children are always in a clean condition. Visits are often made to the house, if only to give the woman a word of praise. She is always ready to open the door now; and when we first went she and the children hid themselves behind the doors or under the bed."

Visits to Schools. One hundred and twenty-eight visits in all were paid to schools by your Female Inspectors in order to make inquiries as to the existence of infectious disease, and also in order to lick out very dirty children attending school and visit their homes so as to have the conditions there remedied.

Outworkers. One hundred and seventy-four inspections were made of premises used by female outworkers, and the general conditions as to ventilation, drainage, cleanliness, the existence of infectious disease, etc., were all made the subject of investigation.

In addition to the above 42 cellar dwellings and 36 workshops, occupied solely by females, were visited and inspected. In all the splendid total of 4,338 visits of inspection, etc., is recorded by your two Female Inspectors. In connection with the whole of this work it was never necessary once to serve any legal notice, and it was only necessary on 73 occasions to serve informal notices, which are merely semi-official letters, in order to get any bad conditions of affairs found on inspection remedied. The whole of the rest of the work was done by mere advice and suggestion coupled with the necessary tact. This speaks volumes for the way in which your Female Inspectors have carried out their difficult and sometimes unpleasant duties. A summary of their work is appended herewith:—

Summary of Work.

	Mrs	s. Fors	ter. M	iss Jon	es.	Total.
Visits of Inspection, etc		2158		2180		4338
Repairs		28		31		59
Infectious Disease		377		422		799
Informal Notices		34		39		73
Reported to Inspectors		7		32		39
Cellar Dwellings		34		8		42
Schools		84		44		128
Workshops		17		19		36
Female Outworkers		94		80		174
Lectures		41		4		45
Overcrowding abated		11		14		25
Accumulations removed		6		5		11
Cleansed		73		78		151
Births		750		727		1477
Deaths from Diarrhea		60		74		134
Revisits		552		383		935

Schools and Infectious Disease.

During the year 410 cases of notifiable or dangerous infectious disease have occurred in school children, and have been dealt with by this Department on the usual lines.

In addition to these cases I have been acquainted by the courtesy of the various teachers and the Education Department with the existence of 490 cases of what are usually termed the "minor" infectious diseases, namely, 476 cases of measles, and 14 of whooping cough. A number of other less important itlnesses such as ringworm, contagious skin diseases of various kinds, chicken-pox, mumps, etc., have also been reported.

There is not by any means the same promptitude in the reporting of these diseases by school teachers as was at one time manifested. The abolition of the epidemic grant has, I am afraid, taken away the stimulus which formerly existed. This is much to be regretted, for in the control of such diseases as measles, whooping cough, and the like the Sanitary Department is almost wholly dependent on information to be given by school teachers, and when that information comes late effective preventive action is seriously handicapped. In more than one case it has happened that an outbreak of measles has almost reduced the attendance in the Infants' Department to half its normal before any notification of its occurrence has been sent to us.

The cases reported from the schools have all been visited by your Female Inspectors, and advice given as to prevention, etc.

I hope shortly to be able to arrange for a few lectures to be given to school teachers on the first signs of infectious illnesses, for teachers are undoubtedly more able than most parents to detect any departure from health of those whom they see day by day, and if they could be made better acquainted with the initial symptoms of the commoner infectious ailments they would, I feel sure, be enabled to act as a most useful advance guard against the outbreak of such illnesses in schools.

Another matter to which I have drawn the attention of your Council in previous reports is the necessity for a systematic medical inspection of school children such as is now being carried out in many large towns.

There are very many illnesses which are particularly liable to spread in schools, amongst those being consumption, various specific infectious diseases such as scarlet fever, measles, etc., contagious sores of the face, head, and body, such as ringworm, head-lice, itch, etc., and certain eye affections (varieties of ophthalmia). It is most important that every means should be taken to prevent schools becoming a centre for the spread of such things as these. One hears with distressing frequency the remark made by even middle class parents that no sooner do their children begin going to school than they catch some infectious disease. If this be the case with the conditions prevailing in such schools, and the exceptional care which is taken to prevent such things, surely it must be infinitely more so the case in schools where hundreds meet together, and where many of them are the children of dirty and careless parents. Again there are in children quite a distinct class of diseases known as habit-diseases which spread by imitation from one scholar to another unless the most careful measures be adopted to prevent this. Further, the eyesight and hearing of a very considerable number of school children are defective, and children are not only seriously handicapped in their educational progress by such defects, but are often unfairly penalised, and their whole nature gradually becomes warped. It is only quite recently that on inquiring into the cause of the backwardness of a little fellow some eight or nine years of age, I discovered that he was about half blind in one eye and almost stone blind in the other, and a letter which he should have been able to distinguish clearly at about 200 feet was only visible by him when he I rought his face within about one foot of it.

Then there is the very large question of defective-minded childen which requires attention, and which I have in hand at the present moment for your Education Committee. All these questions are questions which should be taken into consideration for the sake of the present and future generation. I therefore beg to reiterate the suggestions I threw out in my Report of 1900 as to the appointment of someone to advise as Medical Officer to your Education Committee. I reproduce from that Report the suggestions I therein made as to the duties which might be carried out by such an officer. I may add to the remarks therein made that it has been found in a number of towns that when a medical certificate was available for every child unfit to attend school on account of conditions of health, the work of the school attendance officers was rendered much more effective. The duties which I suggested in 1900 are as follows:—

- "(1) To examine all Pupil Teachers, before engagement and once annually afterwards, in order to see that their general strength and health was equal to the strain of teaching.
- "(2) To visit each school in the town from time to time and examine the children therein, paying special attention to eyesight, hearing, teeth, &c.
- "(3) To advise the Committee as to the forming of Special Classes for Defective minded or Ep leptic children, or such as are Deaf or Dumb, and in the event of any such Special Classes being formed to keep the children in them under medical supervision. This is perhaps the most important line of action open for the work of such an official. The Borough undoubtedly contains many children who cannot, either in fairness to themselves or the other children, be taught in an ordinary school class. They require very careful tuition in the hands of a most experienced teacher. In the case of many it will be impossible to teach them anything more than how to clothe and keep themselves clean and earn a very modest living. There are many children who, for the want of this special training, will, in the course of a few years, drift into the Workhouse, the Asylum, or the Gaol, and be thereafter a constant burden on the purse of the community.
- "(4) To advise the Education Committee on all matters affecting the Hygiene of the Schools and of the children attending them.
- "(5) To supervise and assist the Committee in properly interpreting medical certificates, and advise them in cases of continued absence from duty of teachers or children.
- "This last duty is one which will perhaps only call for exercise on ininfrequent occasions, and it is, of course, one which, in view of the interests concerned, will have to be employed with the greatest delicacy."

A number of sanitary alterations have been taken in hand during the year in connection with schools. Special attention is given by the Department to ensure that the closets attached to schools should be maintained in a satisfac-

tory condition. Four cases where the closets were in an insanitary condition, and were of the old privy-midden type or pail closet type, have been taken in hand, and although in such cases delay is always to be anticipated, negotiations are proceeding satisfactorily for the abolition of the whole of these and the substitution of the water closet system. It is hoped in a short time to arrange for the examination and testing of the drains connected with the whole of the schools in the town.

I am glad to see that the Education Committee have made some definite regulations as to the wet cleansing of schools, though I am of opinion that it would have been better had this wet cleansing been compelled six instead of only four times annually. The thorough wet cleansing of, say, one classroom each week, in the interval between the four general cleansings, would be a beneficial thing and not likely to cause any upset. It would be no bad thing either if, before each wet cleansing, the whole of the schools were disinfected by spray or otherwise.

I append a statement showing the number of cases of infectious disease in school children dealt with by the Sanitary Department during the past five years. It will be noticed that the figures are by no means small ones.

The following matters of Sanitary interest are made the duties of School Caretakers:—

1. To sweep each department of the school every evening.

2. To dust all desks, &c., by 8 30 o'clock each morning, and any maps,

diagrams, and pictures when required.

3. To wash the floors of each department at least four times a year, according to Time Table supplied, or oftener if required, and to wash and thoroughly clean the school during the Summer and Christmas vacations.

N.B.--All maps and pictures must be removed from the walls and cleaned,

and the walls swept.

To wash towels, dusters, &c., every week.

5. To wash the hearthstones every morning when open fires are in use, and once a week when not in use.

6. To blacklead the grates, where open fires are used, once a week.

- 7. To wash the urinals, the closet seats, and floors daily, and to keep them always clean. Where flush-out basins or troughs are used, to see that they contain a good supply of water, and to thoroughly flush out before morning school, before afternoon school, and again after the scholars have been dismissed in the afternoon.
- 8. To cover with sawdust and remove at once any offensive matter in the schools.
- 9. To open the school doors every morning and (when required by the head teacher) in the afternoon, half an hour before school time, and to be in attendance until the teachers arrive.
- 10. To open all windows and ventilators immediately on entering the school each morning, and to keep the same open until commencement of morning school, during the mid-day recess, and after afternoon school for at least one hour.

11. To make up the fires at noon, and to sweep up the hearths.

12. To sweep the yard twice a week, or more frequently if need be; and

to remove, daily, all bits of paper, stones, or other material which disfigure the yards or playgrounds; and to keep all drains and drain traps clear.

13. To clean all the inside windows (including glass partitions) of the school at least six times a year, and as often, in addition, as may be required.

14. To clean the cupboards when required.

15. To carry in and store all fuel, and to remove all cinders and rubbish to the dust-bin.

SCHOOL CHILDREN SUFFERING FROM INFECTIOUS DISEASE DURING PAST FIVE YEARS.

			"Dangero Diseases			Notifiable Dangerous	
Year.	Small- pox.	Scarlet Fever.	Diphtheria.	Totals.	Measles.	Whooping Cough.	Totals.
1900.		146	9	155	290	59	349
1901.		390	9	399	1418	48	1466
1902.		308	7	315	413	320	783
1903.	1	360	6	367	98	1	99
1904.	19	375	16	410	476	14	490
TOTALS	20	1579	47	1646	2695	412	8137

Legal Proceedings.

The subjoined table contains an analysis of the whole of the legal proceedings taken by the Department during the year 1904, and it will be seen that the bulk of these cases refer to the selling of adulterated articles of food, or the exposure of unsound food. The large amount of success with which the prosecutions of your Sanitary Committee met is due without question firstly to the careful consideration which is given to all cases of this character before they are submitted to your Committee, cases only being reported to the Committee when every other effort of the Department has failed, and secondly to the careful consideration given to the cases laid before them by your Committee itself. It is to be feared that in many of the cases of food prosecutions the fines inflicted are not sufficiently heavy to act as a deterrent against the recommission of the oflence.

LEGAL PROCEEDINGS DURING THE YEAR, 1901.

OFF	ENCE.		RESULT.	AMOUNT OF FINES, &C.
Selling adultera	ted milk		Convicted.	£ s. d. 5 0 0 and costs and advocate's and analyst's fee or- 1 month.
Do.	do.		do.	2 0 0 do. do.
Do.	do.		do.	2 0 0 and costs and advo-
10.	uo.	•••••	do.	cate's and analyst's fee.
Do.	do.		do.	1 0 0 and costs and advo- cate's and analyst's fee or 14 days.
Do.	do.		do.	1 0 0 do. do.
Do.	do.		do.	1 0 0 and costs and advo-
20.	uo.		tto.	cate's and analyst's fee.
Do.	do.		do.	1 0 0 do. do.
Do.	do.		do.	0 10 0 do. do.
Do.	do.		do.	0 10 0 do. do.
Do.	do.		do.	0 10 0 do. do.
Do.	do.		do.	0 10 0 do. do.
Do.	do.		do.	0 10 0 do. do.
Do.	do.	•••••	do.	0 5 0 and costs and anal-
20.	uo.		uo.	yst's fee.
Do.	do.		do.	0 5 0 do. do.
Do.	do.		do.	Costs and analyst's fee .
Do.	do.	•••••	do.	do. do.
Do.	butter		do.	2 0 0 and costs and anal-
20.	Dutter	•••••	uo.	yst's fee.
Do.	do.		do.	0 10 0 and costs and advo- cate's and analyst's fee.
Do.	do.		do.	0 5 0 do. do.
Do.	do.		do.	0 5 0 and costs and anal-
			do.	yst's fee.
Do.	jam		Withdrawn	On payment of costs.
Do.	do.		do.	do.
Do.	do.	*****	do.	do.
Do.	do.		do.	do.
Do.	do.		do.	do.
Do.	pepper		Convicted	0 5 0 and costs and anal-
	I - P P		Commode	yst's fee.
Do.	do.		do.	Costs.
Do.	do.		do.	do.
Do.			do.	0 2 6 and costs and anal-
Selling adulterat			do.	yst's fee. 0 5 0 and costs and advo-
Do.		y	do.	cate's and analyst's fee. Costs and advocate's and
	I RECEIVED			analyst's fee.
Do.	do.		do.	Do. do.

OFFENCE.	WESULT.	AMOUNT OF FINES, &C.
Do. rum Do. do Selling margarine for butter	do.	£ s. d.
		yst's fee.
Do. do		0 10 0 and costs and advo- cate's and analyst's fee.
Do. do	Dismissed under war- ranty section	
Exposing for sale margarine un- labelled	Convicted	0 10 0 and costs and advo- cate's and analyst's fee.
being duly consigned as margarine	Withdrawn	On payment of costs.
rooms	Convicted	Costs.
Having diseased carcase of cow in his posession	do.	2 0 0 and costs and veter- inary surgeon's fee or 1 month.
Having diseased meat in his possession	Withdrawn Convicted	2 0 0 and costs and veter-
Wilfeller anne i en biene alf estillet	do.	inary surgeon's fee or 1 month hard labour.
Wilfully exposing himself whilst suffering from smallpox Wilfully exposing children whilst	do.	0 10 0 and costs or 14 days
suffering from scarlet fever Being in charge of persons suffering from a danger-	do.	0 5 0 and costs or 7 days.
ous infectious disease, wilfully exposing him without proper precau-	Dismissed on ground of want of	
tions against spreading the said disease	jurisdiction do.	
Using buildings as cowsheds contrary to Sec. 8 of the dairies, cowsheds and	Convicted	0 10 0 and costs and veter-
milkshops order of 1885) Do. do.	do.	inary surgeon's fee. 5 0 0 and costs and advo- cate's fee or 1 month.
Non-compliance of notice to cleanse houses	Withdrawn do.	On payment of costs . Do. do.

Factory and Workshops Act, 1901.

This Act makes it compulsory now upon the Sanitary Authority to submit a special report or set apart a special portion of the Medical Officer of Health's Annual Report for the consideration of the manner in which the above Act has been administered during the year, a copy of this portion of the report to be sent to the Secretary of State.

Inspector Billingham, in whose hands this work has been placed for the past few years, has continued to carry out his work as well as ever, and with extremely little legal pressure.

Factories. Visits of inspection have been paid to 54 factories, and in these attention is always specially directed, if not exclusively so, to the question of suffici nt and suitable closet accommodation for both sexes, when both sexes are employed. In only three cases has it been necessary to have the closet accommodation increased. In one of these a block of eight new water-closets was erected, and in two other cases three additional water-closets were provided.

Your Borough Surveyor has been paying special attention to the question of fire escape provision in factories.

Workshops and Workplaces. The following gives the number of workshops and wo:kplaces in the Borough, the total number of such places being 630.

Those workshops which are used by females only are visited by your Female Inspectors.

Inspector Billingham has paid 763 visits of inspection to workshops and workplaces. A considerable number of notices have been served on occupiers to cleanse and limewash, and in all cases these notices have been readily and willingly complied with. In only two cases was the closet accommodation found to be insufficient, and in these the deficiency was promptly made good.

Coopers	3
Dressmakers	144
Milliners	88
Boxmakers	3
Shirtmakers	9
Tailors	57
Paper bag makers	4
Paper bag makers	61
Cloggers	19
Tinplateworkers	14
Blacksmiths	25
Brushmakers	6
Coachmakers	4
Saddlers	14
Joiners	34
Waste dealers	7

Wheelwrights	8
Filecutters	2
Skipmakers	5
Cycle makers	3
Lath cutter	1
Cabinetmakers	19
Hat bodymakers	14
Organ builders	2
Straw hat maker	1
Blindmakers	6
Feather curlers	2
Printers	13
Polishers	2
Curriers	3
Ropemakers	5
Handloom weavers	11
Bakers and confectioners	88
Dyers and cleaners	3
D Jois and oleaners	0
Total	630
	-

Bakehouses.

Visits of inspection were paid on 370 occasions to bakehouses in the Borough, and in practically every single instance the premises were found to be kept in a clean, wholesome, and sanitary condition. It was only necessary to call attention to one instance where limewashing was required, and this was done the following day to our satisfaction.

One case came to our notice of an underground bakehouse, the occupiers of which had curiously enough never seen any of our advertisements, and of the existence of which we were ignorant. At first it was doubtful whether it was competent for us to deal with this bakehouse, and to allow it to continue in occupation on account of the lapse of the time allowed by the 1901 Act. However, on referring the matter to the Town Clerk, we were informed that there was nothing to prevent the bakehouse being altered so as to bring it up to statutory requirements. Several visits of inspection were thereupon made by your Medical Officer of Health and Inspector Billingham, and the necessary alterations pointed out and effected to our satisfaction. There are now 15 underground bakehouses in the Borough, and these are kept under regular supervision.

Outworkers.

The duty of visiting the male outworkers is thrown upon the District Inspectors, and of visiting the female outworkers upon the Female Inspectors.

There are 185 outworkers known to the Department, and the class of work done by them is shown in the following statement.

FEMALE OUT-WORKERS.	MALE OUT-WORKERS.			
Nature of Work. Number. Hat Trimming 122 Skirt Making 12 Tailoring 7 Underclothing 3	Nature of Work. Number. Planking			
Fur Pulling 1 145	40			

The male outworkers have been regularly visited, and the Female Inspectors have paid 174 visits to the homes of the 142 female outworkers. The female outworkers are mainly hat trimmers, and the number of these has increased from 94 in 1903 to 116 in the year under review. I am strongly of opinion that the fur pulling is an occupation which is not a proper one to be carried on in any home, the organic pollution of the atmosphere being at times almost unbearable. A little difficulty was experienced in securing the lists of outworkers from firms employing them, but the difficulty has by no means been so great as formerly, and as time goes on it will probably vanish. A considerable number of addresses of outworkers have both been received from and forwarded to other authorities. A few cases of failure to affix an abstract of the Factory and Workshop Act have been reported to H.M. Inspector of Factories.

My attention has recently been drawn to several cases of illness resulting from the use of a marking ink solvent used in certain laundries. I obtained a sample of this through the courtesy of a local medical practitioner who had been called in to attend these cases, and submitted it to the analyst, who declared it to be commercial aniline oil. I interviewed the Factory Inspector and obtained some further information as to the extent to which this was used, with the result that in the end I forwarded a letter to all the principal laundries in the town drawing their attention to the dangers attending the careless use of this solvent, pointing out the symptoms which would be likely to result from poisoning caused by it, and informing them of the precautions to be taken to avoid danger, and the means to be taken in the event of illness resulting.

The following summary of work done under the Factory and Workshop Act is appended in accordance with instructions from the Home Office:—

FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES, AND HOMEWORK.

1.—Inspection.

Including Inspections male by Sanitary Inspectors or Inspectors of Nuisances.

		Number	
Premises.	Tuenne	tions	Written Notices.
Factories (including factory laundries)	54	tions.	3
Workshops (including workshop laundries)	763		_
Workplaces	370		
Homeworkers premites	510		
Total	1557		3
		200100	
2.—Defects Found.			
	Numl	er of def	oota
Particulars.	Found.		emedied.
Nuisances under the Public Health Acts :	I ound.	200	Jiiiouicu.
Want of cleanliness	3		3
Want of ventilation	1		1
(Insufficient	5		5
Sanitary accommodations Insufficient Unsuitable or defective	e 2		2
Not separate for sexe	es 4		4
P.H.A.A. 1890 S. 22 in force: Home Secretary			
standard adopted (Sanita y Accommodation Order	::		
Offences under the Factory and Workshop Act :-) 1		1
Illegal occupation of underground bakehouse (S 10) Breach of special sanitary requirements for bake			1
houses (SS. 97 to 100);			1
Failure as regard lists of outworkers (S. 107)	. 23		22
Allo ving wearing apparel to be made in premise			
infected by scarlet fever or smallpox (S. 109.)	. 4		4
	-		-
Total	43		43
	-		-
3.—Other Matters.			
CI)		NT	
Class.		Number	
Matters notified to H.M. Inspectors of Factories: Failure to affix Abstract of the Factory and Wor			
shop Act (S. 133)	K-	1	
Action taken in matters referred Notified by H.	M	-	
by H.M Inspectors as reme- Inspector		14	
dial under the Public Health Reports (of action	on		
Acts, but not under the taken sent	to		
Factory Act (S. 5) II.M. Inspector	S	12	
Underground Bakehouses (S 101) :			
In use during 1903		14	
Certificates granted { in 1903		14	
In use at the end of 1904		15	
Homework:—		Numb	per of
Lists of Outworkers (S. 107):—	I		tworkers.
Lists received		68 ,	107

Class.	Number.
Addresses of outworkers re	warded to other authorities 66 eived from other
	uthorities 18
(See list in text of I	
Total number of wo	kshops on register 630

Black Smoke.

During the year 1904 observations were taken during two hours each of 170 chimneys not being the chimneys of private dwelling houses, with a view to detecting nuisances from the emission of black smoke. The results of these observations are given in the following table, and it may be seen that whilst there are undoubtedly excessively bad cases amongst them, a distinct improvement may be claimed in this direction. It was found necessary to serve legal notices in 6 cases on the firm; concerned to abate the nuisance and for that purpose to execute all necessary works so as not only to do away with the nuisance but to prevent its recurrence. After the time specified in the notices observations were again taken on several occasions, and in no single case was there any cause for complaint. In addition to this the premises concerning which notice had been served were visited several times to see what alterations, if any, had been carried out. In one of the cases alluded to a new chimney had been built in order to secure a better draught. In three instances new high pressure boilers had been put down, one at each of three mills; and in another case a Davidson's Sirocco fan had been fixed, whilst in the sixth case a water tube boiler, with Babcock's patent stokers and a Davidson's fan, had been put in. The most commonly used smoke appliances in the Borough are the following:—Green's economisers, Procter's mechanical stokers, Binnie's mechanical stoker, several forms of hollow bars, and certain automatic air regulations.

No.	В.	М.	N.	No.	В.	M.	N.	No.	В.	М.	N.
1		35	85	16	12	72	36	81	12	53	55
1 2 3	1	56	63	17	1	74	45	32	1	64	55
3		51	69	18	3	76	41	33	1 2	541	65
4 5		63	57	19	4	50	66	34		27	98
5		65	55	20	1	53	66	35		47	73
6 7	2	57	61	21		53	67	36	31	56	601
7		47	73	22		36	84	37	2	54	64
8 9		41	79	23		37	83	38		40	80
		33	87	24	2	62	56	39	10	36	74
10	1	45	74	25	27	82	11	40		35	85
11		41	79	26	1	106	13	41		14	46
12		39	81	27		30	90	42		57	63
13		56	64	28		261	931	43		59	61
14	***	53	67	29		56	64	44		56	64
15		56	64	30	3	691	471	45	3	691	471

No.	В.	M.	N.	No.	В.	M.	N.	No.	В.	M.	N.
46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 77 78 79 80 81 82 83 84 85 87	1	54 46 23 73 64 37 47 26 48 51 37 41 59 46 38 40 36 41 38 67 45 49 36 47 38 40 51 40 51 40 51 40 51 40 51 40 51 51 51 51 51 51 51 51 51 51	65 74 37 47 56 23 73 94 70 66 83 79 60 74 82 80 84 79 22 53 75 71 84 68 63 72 89 80 68 79 68 70 68 70 68 70 68 70 68 70 68 70 68 70 68 70 68 70 70 70 70 70 70 70 70 70 70	88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 1:1 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	47 98 43 63 50 33 41 15 27 39 42 109 43½ 63 48 16 79 37 57 63½ 37 40 41 30 59 20 78 50 80 67 80 67 80 67 80 67 80 67 80 80 80 80 80 80 80 80 80 80	72 222 77 55 67 87 79 105 93 80 78 11 76½ 56 72 104 39 83 63 55 83 80 79 90 60 100 40 70 82 80 23 87 99 41 71 62 47 40 50 66 74	131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170	2 3	47 57 57 58 51 37 19½ 28 36 31½ 30½ 32 36 41 90 4½ 36 40 48 36 40 48 36 40 57 49 58½ 90 58½ 90 55 55 56 56 57 57 58 58 58 58 58 58 58 58 58 58	73 61 60 82 66 83 100½ 60 92 84 88½ 108½ 86 34 59 29½ 77 30 115½ 84 79 70 84 82 80 60 70 47 17 65 72 53 84 78 64 66 63 55 66

Offensive Trades.

The premises coming under this description in the Borough number 33, and are of the following character:—

Year 1904.

Tripe boilers	23
Oil refiners	
Tallow melter	1
Tanner	1
Soap maker	1
Bird-lime makers	2
Leather dressers	3

Places of this description require fairly constant supervision, and the Inspector concerned with them has therefore been instructed to pay a considerable number of visits to them; in consequence of this instruction 437 visits at irregular times both during ordinary hours and during hours when the business was in progress have been paid. With a few minor exceptions the places have been found to be clean and well kept, and the business to be conducted in a rational manner, such as to avoid nuisance.

One application was received during the year by your Medical Officer of Health for the consent in writing of the Council to the establishment of an offensive trade, viz., that of making resin firelighters, but after an inspection of the plans of the portion of the premises to which it was proposed to adapt to this end, and of the means which it was proposed to adopt to prevent the escape of offensive fumes, your Medical Officer felt compelled to advise the proposer of the scheme that such extensive alterations would be required that the scheme was finally abandoned.

Common Lodging Houses.

There are 17 registered common lodging houses in the Porough, and 651 ordinary visits of inspection were made to these, in addition to a large number of special night visits in connection with small ox. Two common lodging houses have been closed during the year, one through the removal and the other through the death of the licensee. One new common lodging house has been registered in Great Egerton Street for 81 lodgers, the premises having been specially altered in accordance with suggestions offered by your Medical Officer, so that the house now ranks as one of the best in the two from the sanitary point of view. On the vacation of the house No. 1, Adlington Square the opportunity was taken to have extensive structural alterations carried out so as to fit the premises better for the purpose intended; the whole of the premises were redrained, some cellars were filled up, two somewhat dilapidated water-closets were pulled down and rebuilt, and fire escape provision was fixed on the front of the house.

A list of these lodging houses together with their registered number of odgers, and the cubic capacity per person, is given in the Table following, and it will be noticed that a high standard of cubic space is insisted upon in this Borough, 400 cubic feet being the usual minimum amount required per person. The whole of the houses have been kept clean and in an orderly condition during the year,

REGISTERED COMMON LODGING-HOUSES.

	Address.	Registered No. of Lodgers.	No. of Rooms	Average cubic capacity per person.
1	Adlington Square (Kershaw)	61	5	408
2	15, Watson Square (Fitzpatrick)	19	8	470
3	1 & 3, Bamford Street (Mottram)	11	3	417
4	Bamford Street (Spilsbury)	17	5	439
5	Union Street (Marland)	115	6	406
6	Higher Hillgate (Gough)	64	13	410
7	Canal Street (Molyneux)	85	5	411
8	Ridgway Lane (Young)	55	5	406
9	15, 17 & 19, Canal Street (Barratt)	36	9	396
10	19, Garnett Street (Sullivan)	12	3	396
11	3, Adlington Square (O'Gara)	11	5	400
12	24, Chestergate (Ronan)	14	5	400
13	Adlington Square (Kershaw)	22	7	462
14	Great Egerton St. (Lomas & Kirby)	81	3	436

Sale of Food and Drugs Acts.

During the year 1904 the systematic work of taking samples for analysis under the above Acts has been carried out. 302 samples were submitted to your Public Analyst during the year, and of these 51 were reported to be adulterated, that is a percentage adulteration of 16.8, as compared with a percentage of 12.5 for the previous year. The results of analysis and the subsequent procedure are tabulated in a statement to follow.

Milk was, as usual, more largely sampled than any other single article of food, for the reason that it is almost always found that the percentage of adulteration is higher in the case of milk than in the case of other food

samples. The question of legal procedure has been most carefully considered in all these cases, particularly in regard to milk samples, and an honest endeavour has been made to comply with the suggestions contained in the circular letters of the Board of Agriculture dealing with this question.

Early in the year the system was instituted of sending out a letter of inquiry in cases where there was a possibility of some other interpretation being given to the Analyst's certificate than that of wilful adulteration. A copy of this letter of inquiry is herein inserted (see below). It is to be noted that the Board of Agriculture has quite recently advised this measure to be taken by all local authorities. In a few cases the replies to these inquiries have been such that your Sanitary Committee has been advised not to take any legal proceedings. In two cases where there was still some doubt after adopting this procedure, and where the same farmer was concerned, your Committee, after hearing the whole of the facts of the case, gave the farmer the option of paying the analyst's fees and all costs in the case on consideration of their abandoning all legal proceedings. The farmer readily agreed to this course of action.

Samples of milk supplied to your hospitals were taken at intervals, and were invariably reported to be of good quality.

Dear Sir or Madam,

l beg to inform you that a sample of
analysis by the Public Analyst, who certifies as follows:—

The matter will be reported to the Committee at their next meeting, and I should therefore be gla l if you would furnish me with any explanation you
may have to offer in reference to the case, so that I may lay it before the Committee, to assist them in arriving at a decision as to the taking of further proceedings or otherwise.
Will you be good enough to let me have a reply to this by return of post, if possible.
Your explanation should be in writing, so that it may be read to the Committee.
I am, Yours faithfully,
Medical Officer of Health.

In 5 instances samples of jam were found to be adulterated with quantities of salicylic acid beyond that allowed in the recommendations of the Departmental Committee on this question, and after a careful consideration of the cases your Committee decided to leave the onus of decision to the Magistrates,

and informations were accordingly laid. However, the solicitor for the firms concerned appeared with his principals before your Committee and gave an undertaking to withdraw the whole of the adulterated jam from sale within a given period, and to forbear the addition of salicylic acid beyond the aforesaid limits in the future. On this understanding the cases were withdrawn on payment of all costs by the vendors.

Seven applications were received during the year from wholesale dealers in margarine for registration under the 1899 Act. The whole of these applications were granted by your Committee, and the particulars reported to the Board of Agriculture. There are now 27 names of wholesale dealers or manufacturers of margarine on the register.

In four cases notices were served on milk purveyors requesting them to comply with the provisions of Section 9 of the 1899 Act, and to have their names inscribed on their vehicle or cans when selling milk in a public place. These notices received ready compliance, and further proceedings were consequently unnecessary.

One class of case which was dealt with by the Department during the year is worthy of special notice, that is the addition of silent spirit to brandy, whiskey, and rum. The rum case could perhaps best be described by the following extract from the "British Food Journal."

RUM.

70 per Cent. of "Silent Spirit."

At the Stockport Police Court, on September 20, Walter Morris, licensee of the Houldsworth Arms Hotel, Reddish, and David Jones, licensee of the Railway Hotel, Reddish, were summoned for having sold "to the prejudice of the purchaser of a certain article of food, to wit rum, an article not of the nature, substance, and quality demanded, insomuch as it contained between 70 and 80 per cent. of silent spirit, contrary to statute." Mr. Dobson (Deputy Town Clerk) prosecuted on behalf of the Sanitary Committee of the Stockport Corporation, and Mr. J. H. Layton, barrister-at-law, instructed by Messrs. Layton, Son, and Calder, solicitors, Liverpool, defended. Mr. Dobson said that on June 24, Inspector Butler sent a man named John Bowden, a market porter, into the Houldsworth Arms Hotel for one shillingsworth of rum. It was served by Miss Morris, and was afterwards divided into three parts. One part was sent to the Public Analyst, who certified that it was a mixture of rum and silent spirit, in which silent spirit was present to the extent of not less than 70 per cent. and not more than 80 per cent. It only contained 62 parts of compound ethers, whereas genuine rum contained 400 parts of such ethers per 100,000 parts of alcohol. This kind of rum was imported, and called "Demerara rum," and if it was to be sold it should be sold as Demerara rum and not as the genuine article. According to medical opinion the great value of genuine rum was due to these compound ethers, which gave to rum its great recuperative powers. It was used for this reason in the Army and Navy. According to recent analyses, genuine rum should contain 399 parts of ethers per 100,000 parts of alcohol. The "Encyclopædia Britannica" said, "Rum in former times was made almost exclusively from the expressed juice of the sugar cane, but it is now largely

obtained either from cane sugar, molasses, or from cane-megasse-that is, the sugar-cane pulp from which the greater part of the juice has been expressed. Fictitious rums made either wholly or in part from plain spirit and flavoured with essential oils ('rum essence') are occasionally encountered, but this also applies to other spirits, such as wine and fruit brandies." If a person asked for whisky, continued Mr. Dobson, he expected to get whisky made from malt, but if he were given the imported American whisky, which was made from rye, he received a totally different article. A large amount of silent spirit was imported from Hamburg. It was mixed with a litte genuine rum, and the mixture was sent out as genuine rum. John Bowden, who purchased the rum, stated that he could not tell the difference between Demerara rum and Jamaica rum. Witness also went to the Railway Hotel and asked for 1s. 6d. worth of rum. He handed the rum to Inspector Butler. Inspector Butler stated that the last witness, under his instructions, asked for rum at both the Houldsworth Arms Hotel and the Railway Hotel. At both places he followed Bowden into the house soon afterwards. Mr. William Thomson, F.I.C., the Public Analyst, gave evidence. He said the difference between the article he had analysed and genuine rum was to be found in the quantities of compound ethers' which were the most characteristic bodies contained in rum. Jamaica rum contained somewhere about 400 to 600-perhaps a little less, but one could not go much below 300 from 300 to 600 parts of the compound ethers per hundred thousand parts of alcohol. The sample only contained 62, and, therefore, there was a very great difference between what must be regarded as genuine rum and the samples in question. The compound ethers were the chief distinctive constituents in rum. Mr. Dobson: Are they the most valuable substances as regards recuperative powers?—Witness: Yes, if it is for these peculiar ethers that people purchase rum. Can you tell us what silent spirit is ?--Silent spirit may be produced from sugar, sawdust, grain, potatoes, maize, or anything of that nature. Once it is obtained it is almost impossible to say from what it has been produced ?-Yes, when it has been properly purified. Is there not a large amount of silent spirit imported from Germany ?-Yes. Can you give any idea of the difference in the value of genuine rum and the cost of this silent spirit ?-I cannot give you an idea of the cost beyond this, that any spirit imported costs 4d. per gallon more than spirit made in this country. Cross-examined by Mr. Layton: Do you seriously say that the rum coming into this country from British Guiana or Demerara is not genuine rum? Will you say "Yes" or "No?"-I cannot answer the question by either "Yes" or 'No." And that is your answer in face of your certificate ?- I say that if a person asks for rum he should get what is known usually as Jamaica rum, and is of the quality of Jamaica rum. Do you suggest that the rum coming from Demerara or British Guiana is not genuine rum ?—It may or may not be. I mean the rum manufactured in Demerara by the ordinary process ? - If it is manufactured in the manner in which rum should be manufactured I should say it is genuine. May I take it that the rum manufactured in Demerara, and which has not had silent spirit added to it, is genuine rum ?-You can make a spirit in a certain way so as to remove all the compound ethers or the greater portion of them. If you do that you are making a spirit which is not genuine rum. What is your definition of rum ?- It is a substance that should contain between 300, 400, 500, and 600 parts of compound ethers per hundred thousand of absolute alcohol present. Answering further questions, the witness said the highest quantity of compound ethers he had himself found in rum was 489 parts

per 100,000 parts of absolute alcohol present in the sample. Mr. Layton said that the Government Blue Book returns showed that three times as much rum came from British Guiana as from Jamaica. Replying to Mr. Layton, the witness said that the Coffey still used in British Guiana was used for the purpose of obtaining silent spirit. Mr. Layton: Do you mean that if a man manufactures a spirit in a Coffey still in Demerara he intends to turn out silent spirit ?-- Witness: Yes. Is the main object of adding silent spirit to increase the bulk at a cheaper rate?-It might be so, but not necessarily. It might be done to satisfy customers. To get a milder flavour?—Yes. In further cross-examination, the witness said silent spirit could be produced very cheaply-at about sevenpence or eightpence per gallon. In the Jamaica district the cost of producing rum was 1s. 1d. to 1s. 2d. per gallon. Several sample bottles of Jamaica and Demerara rum were handed to the Bench. Dr. Young, Medical Officer of Health for the Borough of Stockport, said that rum was frequently prescribed for certain ailments like coughs and colds to induce perspiration. It was prescribed in preference to other alcoholic liquors because of the known fact that it contained compound ethers in greater quantities than the quantities present in any other spirit. It was recommended by a number of high authorities for medicinal purposes. It would not serve the same purpose to prescribe rum containing "silent spirit" in large quantities. If people asked for rum they ought to have genuine rum. Mr. Layton submitted that there was no case to meet. Mr. Thomson had made the deduction genuine rum must contain 400 parts of compound ethers per 100,000 parts of alcohol, and had taken a standard recently set up by Mr. A. Vasey. If people asking for rum must be served with Jamaica rum he agreed, but it would be ridiculous to say that. Not only was Demerara rum drunk in this country in larger quantities than Jamaica rum, but three times as much Demerara rum was imported into this country as Jamaica rum. If the magistrates condemned this rum as not being genuine they would condemn all the Demerara rum in the country. There was no half-way measure. Mr. Layton submitted that no proper standard had been fixed and the difference in the process of manufacture was at the bottom of the question of ethers as between the Demerara rum and the Jamaica rum. Mr. Thomson had failed to establish any standard upon which the Bench could judge how much patent or silent spirit should be in the rum. The magistrates retired, and after a consultation decided that there was a case to meet. Mr. Layton proceeded to address the Bench, and said that he should be able to prove that Mr. Thomson knew nothing about rum when he made his analysis, and he (Mr. Layton) would also prove that Demerara rum was genuine rum as much as Jamaica rum was genuine rum. In conclusion, he denied that "silent spirit" had been added to the rum in bonded stores or by the brewers or publicans, and contended that "silent spirit" was more costly than the rum itself. Robert Morris, a member of the firm of Nicholson, Waterhouse, & Co, produce brokers, Liverpool, stated that rum from Jamaica commanded a much higher price than rum from Demerara. He thought it was a matter of fancy, and the sales of Demerara were much greater owing to the lower price and the popularity of the rum. The rum in this case was the finest of its kind that came into the port of Liverpool. The buyers were most particular, and the rum was the best that could be got. It was absolutely the best Demerara rum. Mr. Layton: As to adulteration?—That is absolutely absurd. Would it pay anybody to do it ?-No. Replying to Mr. Dobson, the witness said there were half-a-dozen

different kinds of rum. If he asked for rum he would be quite satisfied if he got the rum this man got. Mr. Dobson: What are the prices of Jamaica and Demerara?-I sold some Jamaica the other day at 3s., and some Demerara at 1s. Jamaica costs three times as much as Demerara ?—Yes. One of the defendants, Walter Morris, licensee of the Houldsworth Arms Hotel, Reddish, stated that the rum was sold as he bought it. Nothing was added to it. He had Jamaica rum and Demerara rum. Mr. Dobson: What did you give a gallon for the rum ?--Witness: I don't think that is a fair question. Mr. Layton: If a man asked for rum you would give Demerara rum?—Witness: Yes. And if he asked for Jamaica rum you would give it? -Yes. The other defendant, David Jones, of the Railway Hotel, Reddish, stated that he did not mix silent spirit with the rum; it would be impossible, as the spirits were always being tested. He kept Jamaica rum, which cost more than Demerara. A person asking for rum would get Demerara rum, but if he asked for Jamaica rum he would get it. The Chairman: It is the customer's look out. I have learned something today. (Laughter.) George Barker, managing director for Threlfall's Brewery Company, stated that his company had purchased Demerara rum in large quantities for forty years. The rum in the present case was a blend of three brands, two of which they had had for forty years. They had never kept silent spirit in the place during the forty-five years he had been connected with the firm. William Augustus Wolseley, retired sugar planter, residing at St. Leonards on-Sea, stated that he was a sugar planter in Demerara from 1866 to 1899. There was no better Demerara rum than that in this case. The witness described the process of Demerara rum manufacture. He said the Coffey still had manufactured what had been known and what had been believed for between thirty and forty years to be rum. It had the flavour of rum. Mr. Layton: Is the product of that still genuine rum?-Witness: I say it is rum and nothing else but rum. The Magistrates retired, and on their return the Chairman said it appeared to the Court that Demerara rum differed very materially, so far as the compound ethers were concerned, from Jamaica rum. The differences in the composition of these rums seemed to arise from the diversity in the methods of manufacture, and the difference in the amounts of the compound ethers present from the same cause. The Court was of the opinion that the samples corresponded more or less closely with the accepted analysis of Demerara rum. Mr. Layton: May I ask for the cases to be dismissed?—The Chairman: Yes; the cases are dismissed. Mr. Layton asked for costs, and said that this had been a most expensive case to fight. He had brought witnesses from all over the country. Mr. Dobson thought the Bench ought to hold that the proceedings had been very properly taken. It was a most important case. The Magistrates allowed the defendants £10 10s. costs in each case.

The British Food Journal comments on the case as follows:-

"In this case the following questions were at issue:—(1) What should be supplied when a person asks for 'rum?' (2) Was the seller justified in supplying so-called Demerara rum admittedly made by a 'Coftey' still? (3) Was the seller justified in supplying as 'rum' an article containing not more than one-eighth of the quantity of ethers (esters) which is found in the liquor to which the name of rum was originally given, and to which it owes its peculiar properties?

- "It was admitted that, originally, rum was manufactured by the process at present carried on in Jamaica. That process differs very materially from the process now carried on in Demerara. In Jamaica the rum is distilled from the old pot stills, whilst in Demerara it is distilled in the so-called 'much-improved stills' known as 'Coftey' stills. The Demerara rum produced by this process is described as being 'more highly purified,' and does not contain nearly so much compound ethers as true Jamaica rum.
- "The process of fermentation is also very different. The Demerara rum is fermented directly from the sugar or molasses, and the fermentation does not last longer than twenty-four hours; whilst in Jamaica the lees or so-called 'dunder' from the still of the previous distillation is added to the sugar and molasses in the 'wash.' Larger and shallower fermentation vats are employed; the fermentation is carried on for ten days, and the wash is then distilled in the ordinary or old pot stills; the finest distillate is then re-distilled, and the resulting liquor is Jamaica rum.

The description of the processes as given by Counsel and corroborated by Mr. Wolseley, a retired sugar planter, clearly shows that the two liquors are very different. The original or Jamaica rum contains a large quantity of compound ethers or "esters," and care is taken in the process of manufacture to produce them because the "dunder" or lees of the still from a previous distillation are carefully collected and added to the wash—which is to be fermented in shallow fermentation-vats. The "dunder" contains acetic acid and others acids, and higher alcohols, which by oxidation (due to the relatively large surface of the liquor exposed to the air) produces a large proportion of the ethers, such as acetate of amyl, by the oxidation of the ethyl alcohol into acetic acid, and the combination of this with the amyl radical or the radicals of other higher alcohols to produce amyl acetate or some other acetates, or the amyl alcohol may thus become oxidised into valeric acid, which in its turn may combine with the ethyl of the ethylic alcohol to form ethyl valerate. These compound ethers are very fragrant, and give the characters peculiar to true rum-which are still to be found in real Jamaica rum.

- "About thirty or forty years ago it was found that a much cheaper spirit could be produced by the "Coffey" still (which is specially adapted for producing silent spirit), or, as Mr. Wolseley put it 'a much purer spirit which has a rum flavour, and this stuff, as he informed the Court, was 'the finest Demerara rum.' According to the Stockport Police-court evidence, therefore, the original rum has been ousted form the position which it formerly held.
- "Mr. Wolseley is reported to have said that if he were asked for rum he would supply not the article which was originally called rum, but the 'purified' mixture made from the still used for producing silent spirit, and 'which has the flavour of rum.' He seems to have taught the Chairman something, for the latter remarked that, according to the witness, it was the customer's 'look-out.'
- "This, however, is not the case with other articles of food. When a purchaser asks for tutter, and a highly 'purified' mixture of lard or tallow

with butter is supplied to him, this would not be regarded as 'the customer's look-out.'

"The silent spirit fraud is everywhere at work all over this country at the present time. Genuine pot-still whisky is manufactured from malt and grain, and sold at 2s. 8d. to 3s. per gallon (without duty); silent spirit is made from pototoes, damaged grain, or any carbo-hydrate refuse, at 10d. to 1s. 3d. per gallon; 1 part of good whisky is mixed with 10 parts of silent spirit, and sold as whisky. There is no reason why silent spirit should not be sold as a beverage, but it is only fair that it should be declared. Some people probably prefer silent spirit because they have practically never been supplied with anything else; but in some towns where people have alway; been supplied with genuine whisky, the consumer strongly objects to silent Prices having originally been fixed for whisky, the same prices continue to be charged for silent spirit. This is fraudulent, and it is to be hoped that the manufacturers of whisky will help to uphold their industry and prevent a certain type of silent spirit manufacturer from continuing to use the name of wh sky for his silent spirit mixtures.

"There is not such a large difference between the chemical qualities of genuine whisky and silent spirit as there is between genuine rum and the silent spirit 'flavoured with rum' which was put forward in the Stockport Police-court as 'the ficest rum.' alias 'Demerara rum.' We should advise the manufacturer of genuine rum or genuine Jamaica rum to look to it that the name of rum is not transferred from the genuine article to the silent spirit mixtures made by the 'Coffey' still.

I made a considerable number of inquiries into the therapeutic value of rum and was surprised to find it in such genuine favour with many high authorities. Rum is frequently prescribed medicinally in preference to other alcoholic liquors for several well-defined reasons. In the first place, rum is stated to have a more decided action than brandy, whisky, or gin, in increasing the amount of carbonic acid given off from the In the second place, ram is stated to be the only alcoholic liquor which produces perspiration. In the third place, all the best authorities are agreed that good rum is a most powerful restorative; and, further, that its restorative action is not a mere flash in the pan, but a steady, conservative, stimulating action. Such notable authorities on foods as Dr. Letheby, Dr. Edward Smith, and Dr. Thomas Inman are all agreed that rum is one of the best alcoholic liquors for medicinal use. Dr. Edward Smith states that the "old-fashioned combination of rum and milk is the most powerful restorative with which he is acquainted." Dr. Thomas Inman says that " for internal use for cases of phthisis and similar diseases rum and milk is far better as a means of supplying fat to the body than cod liver oil." Dr. Rirger, the great authority on therapeutics, also expresses a precisely similar opinion. The amount of rum and milk which is taken, as what may be termed a food tonic, by those suffering from chronic diseases of the chest and those convalescing from acute diseases, is very considerable. Rum and glycerine, too, is a fairly common popular remedy for coughs and colds, while rum toddy holds a high place for the cure of the same diseases. The beneficial effect of genuine rum when used medicinally is undoubtedly due to the butyric ether and other compound ethers which it contains in such large quantities when properly manufactured.

The Lancet, commenting on the case, expressed surprise at the Corporation case ending unfavourably to them. The following are its remarks:—

"At Stockport last week, an important case was heard in which two publicans were summoned for selling rum not of the nature, quality, or substance demanded, inasmuch as it contained, according to the certificate of the analyst, between 70 and 80 per cent. of silent spirit. It was denied by the witnesses for the defence, who included scientific experts and sugar planters from Demerara, that the sample of spirit in question contained silent spirit. In fact, according to one witness, the suggestion was absurd. In the face of this another witness, a sugar planter, described in detail the manufacturing process, and said that the product of the Coffey still was rum and nothing else but rum. Now, since the Coffey still produces nothing but silent spirit, it is difficult to understand why the Bench dismissed the case. The Coffey still just as much rebs rum and brandy of the characteristics which distinguish these spirits, and which give them their peculiar individual properties, as does the separator rob milk of its cream. Genuine rum is probably the most powerfully stimulating spirit that we possess, and it is doubtless this fact, inter alia, which led to its use in the navy. Rum-and-milk, again, is admittedly one of the most powerful restoratives known; but the rum must not be merely alcohol of the degree of purity produced in the patent still. It must contain the full complement of etners which rum produced from sugar or sugar residues in the pot still retains. Genuine pot-still rum undoubtedly owes its restorative properties to the very marked amount of ethers which it contains, and therefore when a spirit is supplied showing a deficiency in the essential ingredients of rum it is not of the nature, quality, or substance demanded. The decision in the Stockport case is regrettable, for there is little dcubt that rum is very extensively adulterated. Genuine rum should be a pot-still spirit produced from the fermentation of cane sugar or sugar residues. To qualify it even by such names as Demerara is inadmissible, unless it be clearly stated in addition that it is a patent as distinct from a potstill spirit. That is the crux of the whole question, for if the trade would only adopt an honest label and would not shrink from printing upon it the truth about the spirit as to whether or not it were a pot-still spirit, there would be an end of the matter, and its members would no longer have a chance of complaining of vexatious proceedings being taken against them."

The case excited great interest not only in England, but also in some of the Colonies affected.

The "Jamaica Daily Telegraph" of November 26th, 1904, contained a number of articles upon the question, specially referring to the Stockport case; and the attention of the Board of Trade was drawn to the question by the Incorporated Chamber of Commerce of Liverpool.

There can be no question but that genuine Jamaica rum is a very different article from that sold to the public as Demerara rum, and it is decidedly time that a standard should be fixed to regulate the sale of such articles as this.

The following are the results of analyses made by one of the highest chemical authorities in the United Kingdom of Jamaica and Demerara rum:—

	Jamaica.	Demerara.
Absolute alcohol by weight per cwt	72.24	69.63
Absolute alcohol by volume		76.57
Proof spirit	135.14	134.19
Extractives	0.07	0.33
Acids as acetic acid	65.37	100.30
Aldehydes	68.46	84.62
Ethers as ethyl acetate	280.00	106.91
Higher alcohols	108.40	163.17

The essential points to be noticed in these analyses are the low quantity of ethers contained in Demerara rum as compared with Jamaica rum, and the high percentage of acids in Demerara rum as compared with its rival. It is stated that a considerable quantity of Demerara rum is sold in England as Jamaica rum I possess records shewing that during a given time, 3000 puncheons (about 216,000 gallons) of Demerara rum was sold in England at 7d. a gallon. It was calculated that packing, carriage, &c., cost fully 5d. per gallon, so that only 2d. per gallon was left as the actual value of the rum.

A similar question to this arises in the consideration of brandy and whisky. It is well known that both brandy and whisky are frequently adulterated with what is known as silent spirit, the production of the patent Coffey stills. An important prosecution relating to brandy was taken in London in May, 1904, and was fought out at a cost of several thousand pounds. On the case coming before the Wine and Spirit Association this Association unanimously resolved that they would not take part in any appeal from the decision of the magistrate, and dealers were advised by the Association to exhibit notices in public houses and restaurants, and also put notices on invoices and bottles, declaring in the necessary cases that the brandy sold was not guaranteed to be distilled entirely from grapes, but that the cheaper varieties consisted of foreign grape brandy, mixed with other highly rectified spirit.

Your Committee in view of the importance of the matter sent the following circular letter to all licensed victuallers and other persons concerned in the town. The question, however, should be dealt with in a stronger manner than this, and it is therefore sincerely hoped not only that the Sale of Whisky Bill at present before Parliament will eventually become legislation, but that the more important spirit, brandy, and also rum will be similarly protected.

CORPORATION OF STOCKPORT.

PUBLIC HEALTH DEPARTMENT.

SIR,

The Sanitary Committee of the Stockport Corporation desire to call the attention of licensed victuallers and others to the common practice of adding silent spirit to brandy, whisky and rum. This practice the Sanitary

Committee, after careful consideration, have decided to look upon as an adulteration within the meaning of the Sale of Food and Drugs Acts, and in taking this view they are aware that they have the support of other public health authorities, and not only that but to a very considerable extent the support of the wine and spirit trade also.

They feel sure now the fact of this being regarded as an adulteration is known to spirit traders in the town that the latter will co-operate with them in securing that the public shall have a genuine and not a mixed spirit; and any assistance that the Committee can give to traders in this matter shall be gladly accorded. The Committee strongly advise traders to protect themselves by a properly worded written warranty.

At the same time the Committee desire it to be understood that under the Sale of Food and Drugs Act they have a distinct duty cast upon them by Parliament of taking samples for analysis and subsequently of taking legal proceedings in cases where adulteration is shewn to exist by the Analyst; and this duty is one which they will feel compelled to carry out in the interests of the public.

They think it only fair, however, that an intimation of their intentions should be sent to those who are principally concerned in the matter, and I have been accordingly requested to direct your attention to the above facts

I am,

Yours faithfully,

MEREDITH YOUNG, M.D.,

Medical Officer of Health

Meat Extract, genuine.

Meat extract

-

Year 1904.

e Borough of Stockport upon 31st March, 1904.	Observations.	Fined: 20/-; 10/-; Dismissed (Warranty question.) Genuine sample: Action taken under Margarine Act—forwarding by public conveyance without duly consigning same as Margarine—Withdrawn on payment of costs. Adulterated sample: No action taken.	Cautioned: no prosecution.
nted for the	The sum paid in respect of the Analysis.	10/6 per sample.	
SALE OF FOOD AND DRUGS ACTS.—Report of the Public Analyst appointed for the Borough of Stockport upon the Articles analysed by him under the above Act during the Quarter ending 31st March, 1904.	Result of Analysis; showing whether the sample was Genuine or Adulterated, and, if Adulterated, what were the nature and extent of the Adulteration.	Milk, all genuine; 3 adulterated; 100 per cent of Margarine in each case. Margarine, 1 genuine; 1 adulterated contained an excessive amount of water, viz., 14·5 per cent. Coffee, all genuine.	Paregoric, adulterated, con- tained no opium.
JGS ACTS.—Represed by him unde	State whether the sample was submitted to the Analyst by an Officer acting under direction of a Local Authority under Section 13 of Act, and if so, the name of such Authority.	All by Sanitary Inspector.	
SALE OF FOOD AND DRI the Articles analy	Articles submitted for Analysis.	6 Milk 28 Butter 2 Margarine	1 Paregoric

Total Number of Samples analysed during the Quarter, 40. Total Number of Samples adulterated, 5.

SALE OF FOOD AND DRUGS ACTS.—Report of the Public Analyst appointed for the Borough of Stockport upon the Articles analysed by him under the above Act during the quarter ending the 30th June, 1904.

			Year 19	04.		
	Observations.	Fines: First 5 cases, 10s. each; last case cautioned, no prosecution.	No prosecution.	First case fined 5s.; 2nd case	Cautioned, no prosecution. Dismissed and 10 gns. costs allowed in each case.	Five cases withdrawn on payment of costs & cautionary letter sent in last case.
The second second	The sum paid in respect of the Analysis.	10/6 per sample.				
•	Result of Analysis: shewing whether the sample was Genuine or Adulterated, and, if Adulterated, what were the nature and extent of the Adulteration.	Milk, 28 genuine; 6 adulterated, contained of added water 8 1, 8 1, 6 8, 4 2, 3 9, and 2 1 per	Butter, genuine. Cream, 4 genuine; 1 adulterat'd, viz., more than 0.25 per cent.	Dripping, genuine. Cheese, all genuine. Coffee, all genuine. Vinegar, all genuine. Whisky, 4 genuine; 2 adultrtd,	added water 6.3 & 1.5 per cent. Rum, 4 genuine; 2 adulterated, 70 per cent. silent spirit in	Jam, 4 genuine; 6 adulterated, contained of Salicylic Acid 2.8, 2.8, 2.6, 2.4, 2.0, & 1.7 grains per lb. respectively.
	State whether the sample was submitted to the Analyst by an Officer acting under direction of a Local Authority, under Section 13 of Act, and if so, the name of such Authority.	All by Sanitary Inspector.				
	Articles submitted for Analysis.	Milk	Butter	Dripping Cheese. Coffee Vinegar Whisky	Rum	Jam
-		54	1 2	19449	9	10

Total Number of Samples analysed during the Quarter, 77.

Total Number of Samples adulterated, 17.

Year 1904.

SALE OF FOOD AND DRUGS ACTS.—Report of the Public Analyst appointed for the Borough of Stockport upon the Articles analysed by him under the above Act during the Quarter ending 30th Sept., 1904.

	164	r 1904.		90
Observations.	Fines: £5; £2; costs; £1; 5s.; costs; 5s. respectively. Fined 20s. Cautioned, satisfactory explanation given.	10-8 % Sodium Bicarbonate in excess. Cautioned, no prosecution.	10 % Ground Olive Stones in each case. Fines: 5s.; costs 75 % Dilute Acetic Acid not derived from malt. Fined 2/6 55 % silent spirit in each case. Costs.	ne. Total Number of Samples adulterated, 16.
The sum paid in respect of the Analysis.	10/6 per Sample.			Number of
Result of Analysis; showing whether the sample was Genuine or Adulterated, and, if Adulterated. what were the nature and extent of the Adulteration.	Milk, 24 genuine; 9 adulterat'd, viz., 7 with added water con-15.7, 14·1, 6·5, 3·3, 3·2, 3·0 and 2·7 respectively. I deficient 7 per cent of the fat. I deficient 13·7 per cent. of the fat and containing 1·3 grains per pint of Boric Acid.	Butter, all genuine. Lard, all genuine. Arrowroot, all genuine. Baking Powder, 5 genuine, 1 adulterated.	Pepper, 14 genuine, 2 adultrtd. Malt Vinegar, 7 genuine, 1 adulterated. Brandy, 2 adulterated.	erated. genuine. nuine. both genui
State whether the sample was submitted to the Analyst by an Officer acting under direction of a Local Authority under Section 13 of Act, and if so, the name of such Authority.	All by Sanitary Inspector.			es analysed during
Articles submitted for Analysis.				Whisky
	20	0040	16	- 0000-

SALE OF FOOD AND DRUGS ACTS.—Report of the Public Analyst appointed for the Borough of Stockport upon the Artic's analysed by him under the above Act during the quarter ending the 31st, December 1904.

	Y	ear 19	04.	
Observations.	10/6 per No prosecutions. Vendors sample. paid costs; no action taken.	Fined: 10/-	Fined: 40/-; 10/-; 10/-; last case dismissed. No action taken in 4 cases, unofficial.	
The sum paid in respect of the Analysis.	10/6 per sample.			
Result of Analysis: shewing whether the sample was Genuine or Adulterated, and, if Adulterated, what were the nature and extent of the Adulteration.	Milk, 42 genuine, 5 adulterated, 2 with added water 6.7 & 2.4 per cent. 2 with Boric Acid 2.1 & 1.7 grains per gallon.	1 had 75 per cent. of the fat removed.	Butter, 19 genuine, 8 adulterated. 4 contained 100 per cent of margarine. 4 contained 95, 94, 93 & 92 per cent of margarine respectively.	All genuine.
State whether the sumple was submited to tue Analyst by an Officer acting under direction of a Local Autrority, under Sertion 13 of Act, and if so, the name of such Authority.	All by Sanitary Inspector.			
Articles sul mitted for Analysis.	47 Milk		27 Butter	Margarine Demerara Sugar Beer Cream of Tartar Ground Ginger Co. Liquorice Powder Bacon
	47		27	1 to 10 to 10 to 10

Total Number of Samples analysed during the Quarter, 96. Total Number of Samples adulterated, 13.

Ice Cream Shops.

There are 58 of these shops in the Borough, and as many of them are in the hands of careless "alien immigrants" constant supervision has to be exercised over them so as to secure the purity of the food stuft which they turn out. One hundred and sixty nine visits have been pail from time to time to the premises concerned, and the necessary notices to cleanse the premises and take such measures as were necessary to prevent contamination of the food, were duly served and compliance enforced.

Tuberculosis and the Milk Supply.

The attention of farmers has been more than once directed to the provisions of the Stockport Corporation Act, 1899, dealing with the above question, and visits have from time to time been made with the object of detecting cattle with tuberculous udders. In seven instances such animals have been discovered, and in the whole of these instances the animals have been surrendered by the farmers concerned; the requisite classing, disinfection, etc., of the stalls were rigorously enforced.

Contagious Diseases (Animals) Act.

One case of anthrax was reported under this Act to the police, who asked for the assistance of this Department in dealing with it. Your inspector and myself both visited the place at once, and thoroughly investigated the whole of the facts of the case. It was found that the man who had slaughtered the animal suffering from anthrax the day before was at the time of our visit engaged in milking a cow for the ordinary supply, and was still wearing the same clothing in all respects that he had worn at the time the cow was killed. His boots were even then spla-bed with blood, and the knife which he had used for slaughtering was found by me stored away in a drawer in the farm kitchen along with a number of other knives, etc. The man was promptly dispatched to the disinfecting station to have a disinfectant bath and to have the whole of his clothing thoroughly disinfected. The knife was cremated, the whole of the premises most thoroughly disinfected, the carcase buried in an outlying field, and all the manure, offal, etc., received careful disposal. Frequent inspections were made for a considerable period afterwards in order to detect any further case on its earliest outbreak, but, fortunately, nothing more happened.

Stockport Corporation Act, 1899. Infectious Disease Amongst Milk Dealers.

The whole of the milk dealers in the Borough have been acquainted with the duty cast upon them to notify infectious disease occurring on their premises or amongst their staff in accordance with the above Act. Twice during the year it was feared that certain milk supplies were being responsible for the spread of scarlet or typhoid fever and searching inquiries were at once instituted, the whole of the farms from which the supply was being derived being visited; the results, however, shewed that the suspicions were unfounded. Whilst thus inquiring into cases of this description, your Inspector came across three instances of insanitary shippons, and the local authority in whose district the farms were situated were at once acquainted with the facts, with the result that the conditions were very shortly improved.

The following is the form of the notice which has been sent out in 69 cases during the year:—

County Borough of Stockport.

NOTICE TO DAIRYMEN, COWKEEPERS, OCCUPIERS OF DAIRIES, PURVEYORS OF MILK, &c.

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.

Dairies, Cow-Sheds, and Milk-Shops Orders.

There are at present 53 registered cow-keepers within the Borough. No additional applications for registration as cow-keepers under these Orders have been received during the year. Visits of inspection have been made to premises of this description on 517 occasions. A large number of minor defects have been rectified during the year in question, including the pro-

vision of wa'ering troughs, repaying of shippon floors, repairs to drainage and manure pits, whilst in two cases the cow sheds have been enlarged on lines suggested by this Department. Speaking generally, the places and the animals kept there are well cared for. Each beast is provided with 600 cubic feet of free air space as required by the regulations in force here. In eleven cases it was found necessary to serve notices for such things as overcrowding, the removal of manure, and the cleansing of premis s. In one case where a legal notice was served upon a farmer for occupying insanitary and unregistered shippons, and where the notice did not receive compliance within the specified time, a summons had to be issued. On the case coming before the magistrates the farmer, through his solicitor, pleaded guilty to the offence, and gave an undertaking to do all the work required by this department within 28 days. We agreed to this course of action, and a nominal penalty of 10s, and costs was imposed. The farmer, however, failed to carry out the undertaking given in spite of numerous requests from the Department, and it was found necessary to again summon him before the magistrates, when he was fined the maximum penalty of £5 and costs.

Your Committee have granted certificates to nine new milk purveyors during the year. Seventeen milk purveyors have discontinued the occupation, and there are now 131 left on the register. To their premises 549 visits have been paid, and they have been kept up to the proper standard of cleanliness, etc. It was only found necessary to issue notices for cleansing and limewashing in three cases.

Slaughter Houses.

There are now 47 registered slaughter-houses in the Borough, and one knacker's yard. These premises require constant visitation in order to secure that they shall be kept up to a proper sanitary standard, and accordingly 2,295 visits of inspection have been paid at all hours of the day and night to them. One slaughter house was closed by your Committee during the year on the termination of the licence on account of its insanitary condition. Under the Public Health Acts Amendment Act, 1890, it is now competent for a sanitary authority to issue licences in certain cases for slaughter-houses for twelve months at a time, and advantage has been taken of this from time to time. At the present time 23 of the 47 slaughter-houses, or about half, are only licensed from the 1st of January to the 3!st of December in each year, and it is optional with your Committee, on the termination of any of these licences, to renew them or not. It is possible that some day this system may be the means of saving your Committee a considerable sum of money in the way of compensation, should a public abattoir at any time be erected, and should it be desired to close private slaughter-houses.

It is extremely difficult to maintain that supervision which is so necessary over 47 slaughter-houses scattered over such a large area particularly when one remembers that slaughtering is carried out in these places at irregular intervals, and at all times of the day and night. The premises are, generally speaking, well conducted, even those in which owing to their age and structural condition nuisance of some degree is almost inseparable owing to

the nature of the business carried on. In nine instances notices were served to cleanse the premises, remove offal, provide garbage tins, etc., and all these notices were readily complied with.

Once more I should like to suggest the advisability of the Cleansing Department undertaking the removal of offal at regular and frequent intervals from these premises. The occupiers have time after time expressed their willingness to pay any reasonable charge for this work which might be imposed by the Cleansing Department. There is no question but that such a course of action would considerably minimise the nuisance arising from such premises.

The markets, butchers' shops, etc., have been regularly inspected, and, as a whole the quality of the meat sold was found to be maintained at a good level. In three cases legal proceedings for the exposure of unsound meat were requisite, and in two of these a conviction was obtained with a fine of £2 and costs with veterinary surgeon's fee, the third case being a duplicate information, and being withdrawn when a conviction was obtained upon the first information.

In 26 cases during the year it was found necessary to seize and destroy lungs, livers, etc., in consequence of the presence of localised tubercle, or distoma hepaticum. Other cases where surrender and destruction took place are detailed below:—

The carcase of a pig that had been choked and was discoloured and quite unmarketable.

The carcase of a calf, flesh badly set, wet, and of a bad colour.

The carcase of a heifer with tubercular deposits on costal pleurae of both sides, mesenteric lymphatics and peritoneum clear; both fore quarters surrendered and destroyed.

The carcase of a cow dressed at a farm, flesh very bad colour and imperfectly bled; parturient fever.

The carcase of a cow dressed at a farm, badly bruised and flesh bad colour; parturient fever.

In eight other cases carcases showing lesions of generalist d tuberculosis.

Sixty-six lbs. of preserved tripe partly decomposed.

The various butchers, fishmongers, and fruiterers' shops have been visited during the year, and 66 rabbits found to be partly decomposed were surrendered and destroyed.

A quantity of mushrooms, pickled tongues, etc., where putrifaction had set in were surrendered and destroyed.

Refuse Collection and Disposal.

It is believed that there are now approximately in the Borough 9,000 water closets. 1,000 waste water closets, 3500 privy middens, 5700 privies, 275 pail closets, 7750 movable dust bins, and 2700 dry ashpits. There were no privies constructed in connection with new buildings in 1904, nor to the knowledge of this Department were any new privies constructed in place of old ones. About 530 water-closets were constructed in connection with new buildings, and 716 old and insanitary privies were converted to water-closets.

The complaint received as to nuisance from tips was not perhaps so great during 1904 as it had been during previous years. At the same time a number of complaints were received, and on investigation were found to be quite warrantable. Although it is more or less vain repetition on my part, I fear I cannot refrain from once more strongly recommending your Council to provide a refuse destructor or destructors for the town, and once and for ever close those huge insanitary monuments to a bygone system which your Council at present has in various parts of the Borough. The tip at Whitehill is certainly a thing which should not exist anywhere near a hospital where sick people have to be kept sometimes for months together. I can personally testify to the fact that on a number of occasions when going up to this hospital I have found the smell from this tip to be almost overpowering, and to be distinguishable in the wards of the hospital.

I am indebted to the Borough Treasurer for the following statement giving the expenditure of the Cleansing Department for the year ended December 31st, 1904.

At the commencement of the current financial year the nightsoil and day scavenging departments were combined, so that the expenditure separately of these departments cannot be shown as heretofore.

				£	8.	d.
The Nett Expenditure of Nightsoil and Da Departments				13297	18	$2\frac{1}{2}$
	$\frac{13068}{356}$					
Gross Expenditure	13424 127		$\frac{3\frac{1}{2}}{1}$			
Warth Meadow (including Cap. Charges, £42) Less Income	214 194	2 19	10 7	13297	18	21/2
Whitehill (including Cap. Charges, £60 14s.5d.)				19 100		3 7
Total of General Maintenance Account, Cleansing Department				£13,417	12	01

Inspection of Water Closets and Sanitary Conveniences.

In view of the fact that there are about 9,000 water-closets and 1,000 waste water-closets, together with a small number of latrines of various types in the Borough, your Sanitary Committee decided some time ago to appoint an Inspector, whose principal duty should be the routine inspection of these structures and the repair of any minor defects which were likely to cause waste of water, blockage of drains, etc. This Special Inspector has made about 11,000 visits of inspection during the year, certain properties being visited regularly every week, and certain other properties where defects and improper usage have been discovered, being visited every few days. Special attention was paid to the poorer class of property, and also to premises where water closets had been newly fixed in place of privy-middens, so as to ensure the users of these structures having a good training in their proper manipulation.

In the following table the nature of the defects discovered in connection with water-closets is set out. It is a matter for congratulation when comparing the defects discovered in 1904 with those which came to light during 1903, a diminution is perceptible under most headings, and this is all the more a matter for congratulation when it is remembered that during 1904 there were about 1,000 more water-closets than during 1903. This fact, I think, serves to prove that the population is now becoming more and more educated to the use of the water carriage system, and as time goes by the nuisances caused by improper usage will dwindle away to almost nothing.

Nature of Defects in Water	1	Dist	Totals	Total		
Closets and fittings.	No. 1	No. 2	No. 3	No. 4	1904	1903
Balltaps defective	66	182	76	126	450	560
Cistern Valves defective	11	56	34	42	143	302
Dirtiness and Blockage	17	71	34	43	165	145
Water Pipes defective	4	7	3	3	17	42
Drainage defective	6	29	17	8	60	62
Indiarubber Cones defective	17	13	3	9	42	29
Basins badly fixed	5	2	1	2	10	13

The Midwives Act, 1902.

The special duties cast upon the Sanitary Committee of the Borough under this Act were fully set out in my Annual Report for 1903 (pp. 90 and 91).

The work of getting the machinery of the Act into motion has been an exceedingly difficult one, mainly owing to the large number of illiterate women practising as midwives, and it has been apparent from the first that no good would be effected until a personal visit could be paid to each one in turn.

The Act was designed with two objects in view:—(1) To secure the better training of midwives. (2) To regulate the practice of midwives.

The first of the objects mentioned in the Title of the Act is not the subject of any provision in the Act itself but is left to the efforts of individuals and associations. Whether these will rise to the occasion and whether by their endeavours an adequate supply of properly trained midwives will be available for the future is a matter of considerable doubt at present. What is known as the "practice" clause of the Act (the clause prohibiting any person from habitually and for gain attending any woman in labour unless such person be certified under this Act or attend under the supervision and direction of a qualified menical man) comes into operation on the 1st of April, 1910. This will very materially limit the number of available qualified (or "certified") midwives. Unless a considerable increase takes place in the training of womenfor the work of midwives in the interval between now and 1910 the supply will not be equal to the demand, for it is estimated that about 60 per cent. of confinements are at present attended by midwives alone.

There can be no question that a properly trained midwife is a most useful woman in an obstetric case just as a trained nurse is in a medical or surgical case. But there are many, very many, women at present plying the occupation of a midwife who are illiterate, intemperate, and in other ways utterly unfit to have charge of an obstetric case, with its many serious possibilities of danger. In course of time the Midwives Act will alter this state of things, but the fact remains that any woman, however unfit for the duties, may for the next five years carry on this occupation with comparative impunity provided she does not adopt any title as midwife or claim to be specially qualified to carry out the duties of such. At the present time I know of one woman who has a fairly large "practice" in this class of work, who was concerned with five cases of puerperal fever under circumstances which led to her being crossed off the Roll of the Central Midwives Board, but who still flaunts about in a species of uniform and who, carefully avoiding any technical infringement of the terms of the Act, still carries on as large a practice as ever. She is free from the trammels of rules and regulations, and in fact may do pretty much what she pleases for the next five years.

By dint of special inquiries and largely owing to the courtesy of the medical profession we have brought to light 85 women who are practising as midwives in the Borough.

The majority of these women are those who were in bona-fide practice prior to 1905, but who have received no special training and possess no special qualification for the work except that gained by attendance on a few labours and from rules of thumb handed down from one "Sairey Gamp" to another. It has been most difficult to make them understand the most elementary points in the rules laid down by the Central Midwives Board to guide them in their work and a great deal of hard and patient work will have to be done before their education in this matter can be brotght up to a decent standard.

An inspection of their residences and of all their books, instruments, etc. has been made by your Female Inspectors and the following schedule of inquiries has been drawn out by your Medical Officer of Health as a guide for those Inspectors:—

Date of visit
Name
Address Does Midwife hold Certificate from C.M.B.?
If so, Number
Place of training
How long in practice as a Midwife?
Midwife's Appliances:—
Dresses—number material ,cleanliness
Bag-removable lining, cleanliness
Douche-kind, vaginal endpiece of
Enema Syringe, endpiece,
Catheter
Thermometer
Antiseptic ointment-pot, collapsible tube: nature of
Disinfectant
Other appliances, etc
Midwife's Books.
(Note whether entered up carefuly and to date).
By whom are the various Books entered up?
1 — Register of Cases
2.—Sending for Medical Aid
3.—Notification of Death of Mother or Child
4.—Notification of Puerperal Fever Cases 4
5.—Notification of Still-births
Copy of any description used by Midwife on Brass Plate, Window Card,
Professional Card, etc.
General Sanitary Condition of Premises:
Cleanliness
Ventilation
Drainage
Closet Accommodation

Some extraordinary conditions were revealed by this inquiry. Scarcely a single midwife has her outfit complete, and in accordance with the C. M. B. regulations. Many did not know what a catheter or a clinical thermometer was. One woman who when asked for her clinical thermometer pretended

to search for it but could not find it: persisted in saying she had one and used it: when shewn one by the Female Inspector and asked if she could read it, held it upside down and guessed the reading at 35°F, when it was about 100°F. In order to deal with cases such as this, and bring the women concerned up to a proper standard without harassing them, will require great patience and diligence and constant supervision. The first great lesson we are endeavouring to teach them is that of cleanliness, the abolition of dirt and the use of Nature's simplest means to that end. Next we propose to educate them in the use of antiseptics and the prevention of puerperal infection. After that one might go on to matters of minor detail.

In order to draw pointed attention to the duties of midwives to the Local Supervising Authority, I sent out the following circular printed in bold clear type:—

Madam,

MIDWIVES ACT, 1902.

The above Act states that certain matters occurring in your practice as a Midwife must be reported to the Medical Officer of Health.

These matters are as follows :-

- 1 Whenever the mother or the child dies before a doctor has attended.
- 2 Whenever a stillbirth occurs and a doctor is not in attendance.
- 3 Whenever puerperal fever (childbed fever) occurs whether a doctor is in attendance or not.
- 4 Whenever medical help is sent for (send the copy of the notice you have sent to the doctor).

In the copy of Regulations sent to you some time ago you will find a list of the cases in which you must send for medical help.

At any time when you require a fresh copy of these Regulations you may have one by applying at the above address.

Yours faithfully,

MEREDITH YOUNG, M.D.

Medical Officer of Health.

Very shortly afterwards the following instructions in the use of antiseptics etc., were sent out on account of the large number of inquiries which were being made of me as to the best and safest materials to use and the best manner of using them.

MIDWIVES ACT, 1902.

RECOMMENDATIONS AS TO DISINFECTANTS, ETC.

- N.B.—These recommendations are for the guidance of Midwives in cases where no Doctor is in attendance. In cases which are in the hands of a Doctor the Midwife must ask for and abide by his advice.
- 1. The Midwife should wear nothing when attending cases but washable dresses which can be boiled without damage.

- The hands and finger nails should receive most careful attention: the finger-nails should be kept short and then their cleanliness will be an easy matter.
- 3. If the Midwife should have a cut or scratched finger or hand she should keep it covered with a rubber finger-stall or clean plaster and should wash this frequently with some disinfectant solution.
- 4. When the Midwife's bag is not in use it should be emptied of all its contents and left open exposed to the air; if possible a bag with a removable lining should be used and this lining should be frequently vashed.
- 5. To disinfect instruments nothing is better than boiling those which can safely be boiled, such as metal catheters, scissors, nail-brushes, the nozzles of syringes, &c. In the case of instruments, &c., which cannot be boiled they must be allowed to stand for 15 minutes in Izal solution, Perchloride of Mercury, etc. (see below).
- There are many so-called disinfectants on the market which are utterly
 worthless, but the following are recommended as reasonable in price
 and perfectly reliable if used as directed.
 - Izal. One tablespoonful thoroughly shaken up with five pints of cold water.
 - Perchloride of Mercury Tablets. Remember these are very poisonous and must be kept in a safe place away from children. Usually made of such strength that one tablet dissolved in a pint of water makes a sufficiently strong disinfectant solution.
 - 3. Carbolic Acid, Poisonous. One tablespoonful of the strong acid well mixed with half a pint of water.

How to Disinfect.

To Disinfect the Hands scrub well first with hot water and soap; then rinse thoroughly in one of the above solutions.

To Disinfect Instruments which cannot be boiled, wash in soap and water and then soak in one of the above solutions for 15 minutes, moving them about freely in the solution.

For an Antiseptic Douche use the solutions mentioned above, but only in half the strength named above.

As an Antiseptic Ointment any of the following may be used:—Izal Cream, Carbolic Vaseline, Boracic Ointment, &c.; get this ointment in a collapsible tube and not in a pot—it will keep much cleaner.

For an Antiseptic Eye-Lotion use two heaped teaspoonfuls of Boracic Acid Powder (not Borax) dissolved in a pint of warm water.

Sponges. Never use sponges; they cannot be properly disinfected; use small pads of Absorbent Wool, and burn these immediately after use.

No Midwife must attend any case of Childbirth whilst attending any case of Puerperal Fever, Erysipelas, Bloodpoisoning, or the like, under the pain of very severe penalties.

Any Midwife suffering from "gathered finger," ulcers, abscesses, running from the ears, gumboils, discharging wound, &c., runs a very serious risk of setting up Puerperal Fever in her patient; so also does a Midwife who assists in washing or laying out dead bodies.

MEREDITH YOUNG, M.D., Medical Officer of Health.

Circulars are sufficient for the more intelligent, and are always useful to the least intelligent for reference and quiet perusal, but after all it is the domiciliary visit with its quiet talk and practical demonstration which will do the greatest good. And it is mainly on these lines that I propose to continue the administration of the Act.

I am inclined to quarrel with one of the routines of practice in connection with midwives. It has been for some time a kind of aphorism that when midwives have been attending a case of puerperal fever they should not only be disinfected, bathed, etc., but should also be suspended from practice for a month or more. Undoubtedly this has a beneficial effect when administered as a form of punishment for gross carelessness, but I have reason to believe that the practice is still adopted in cases other than these, with the idea that steam disinfection of clothing, etc., sterilisation or destruction of all infected instruments, the administration of a disinfectant bath under the supervision of a trained nurse, and so forth, are together insufficient to prevent the dissemination of infection.

Surely this is casting grave doubts on our methods of preventing the spread of infectious disease? Accordingly in cases where this has been carried out and where a careful examination has been made for any sores, ulcers, abscesses, or other discharging wounds of any kind, the midwife who is free from danger is at once allowed to continue her work.

Now that the Act has begun to receive that serious attention which it unquestionably deserves, it is anticipated that the standard of the midwives throughout the whole country will be materially raised, and that those poor women who cannot afford medical assistance or the services of a trained nurse will be able to secure useful and safe help at a time of grave peril to the life and health of both mother and child.

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

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 1904 INCLUSIVE, IN THE TWO HOSPITALS.

	1888 1889 1890 1891 1892 1893 1894 1895 1896 1897 1898 1899 1500 1501 1902 1903 1904	89 159	371 271	0 0	1 14	2 1	1 0	164 445
	905 18	57 8	818	0	18	CI	0	395 46
	1501	-	403 8	0	38	-	-	444 3
	1500	9	216	0	64	П	9	293
	1899	0	46	0	27	C2	-	92
	1898	0	115	0	58	0	0	173
	1897	0	279	0	47	0	0	326
,	1896	7 -	265	0	38	1	-	306
	1895	C.1	112	0	40	0	0	154
	1894	26	151	0	21	C1	0	200
	1895	22	127	0	85	6	1	244
	1892	9	26	1	16	C1	0	51
COURT THEORET AND A COURT OF THE PARTY OF TH	1891	0	82	0	15	П	0	48
	1890	-	91	0	22	62	4	120
	1889	0	36	0	14	0	16	99
CHORD	1888	86	35	00	12	0	-	149
		Smallpox	Scarlet Fever	Typhus	Enteric	Diphtheria	Other Diseases	Totals149

PAYMENTS BY PATIENTS.

	£	S.	d.			£	s.	d.		£	s.	d.
1888	 108	4	6	1894		150	9	10	1900	1474	14	6
1889	 591	10	9	1895		176	15	4	1901	629	0	2
									1902			
1891	 25	7	0	1897		319	11	3	19 3	915	5	5
1892	 150	18	6	1898		264	14	1	1904	731	9	9
1893	 122	12	0	1899		362	15	0				
					years -							

NETT COST OF MAINTENANCE.

	£	S	d.		£	s.	d.		£	S	. d.
1888	715	0	2	1894	1313	12	0	1900	389	5	5
1889	864	13	0	1895	1137	5	11	1901	3113	14	11
1890	606	16	2	1896	1544	11	7	1902	2598	0	4
1891	928	6	2	1897	1592	9	. 6	1903	3801	6	2
1892	509	19	8	1898	1316	7	8	1904	2476	19	101
1893	1392	8	11	1899	924	5	2				

The following Tables give the number of cases dealt with by the Hospitals during the past year. STOCKPORT PATIENTS. (441 CASES AND 26 DEATHS.)

	1	ear 1904			
:	555	1	:	:	23
14	уÖ	9	1	:	26
141	236	1	:	1	385
155	241	13	1	г	411
:	30	:	:	:	30
mallpox	carlet Fever	yphoid Fever	ontinued Fever	iphtheria	Total
	155 141 14		30 241 236 5 30	30 241 236 5 30 241 236 5 18 7 6 1	

PATIENTS OF OTHER AUTHORITIES. (42 CASES AND 6 DEATHS.)

Guardians Typhoid Fover. Typhoid Fover. Hazel Grove and Bramhall				-	1		-						
								Smal	llpox.	Searlet	Fever.	Typhoi	l Fever.
							1	Cases.	Deaths.	Cases	Deaths	Cases	Deaths
	Ĺ	:	:	:	1	:	:	27	4	10	:	-	
	rove and Bramhall		1	!	:	:	i.	ಣ	-	:	:	!	1
31 5 10	:	:	:	:		:	:	7		:	:	:	:
31 5 10													
						Total		31	5	10	:	-	-

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

Expenditure on Hospital Account from January 1st to December 31st, 1904.

Salaries and Wages £ s. d. Food, Stimulants, and Drugs 741 1 3 Coal Coke, Gas, and Water 285 13 6 Rates and Tithe Rent Charge 86 2 6 Repairs 55 1 5 Painting 3 2 7 Dress Material, Drapery, &c. 53 3 6 Deputations' Expenses 10 9 1 Telephone Rent 8 0 0 Stabling and Keep of Horses 48 2 0 Harness Repairs 6 4 9 Repairs to Ambulance 7 5 6 Clothing for Ambulance Men 3 10 0 Hire of Horse 3 0 0 Shoeing 6 13 0 Premiums on Insurance of Boiler and Disinfector 1 17 6 Soap 13 17 0 Ironmongery 7 11 9 Stationery, Printing, Advertising, and Stamps 28 3 3 Cab Hire 12 4 0 Surveyor's Assistants' Wages re Hospital Extension 10 2 11 Gratities to Nurses and Christmas Presents for Patients 12 18 0 Services of Extra Nurse 69 18 0 Petty Cash 4 8 8½ Miscellaneous 23 8 10 Whitehill 85 18 6½
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Food, Stimulants, and Drugs
Food, Stimulants, and Drugs
Coal, Coke, Gas, and Water 61 10 9
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Furniture and Bedding
Ironmongery
Telephone Řent
Drapery 9 19 2
Services of Extra Nurse
Medical Assistance (Locum Tenens)
Cab Hire
Printing, Stationery, Advertising, and Stamps 4 13 3

			d.
Repairs	5	2	0
Crockery	2	9	1
Cleaning Materials	2	0	4
Forming Macadam Road		2	5
Miscellaneous	2	2	1
Capital Charges	53	1	8
	885 649	3	31
Less amount received for treatment of Outside Patients*	649	5	6
	£235	17	91/2

Total nett expenditure on Hospital account =£2,476 19s. 101d.

* This amount includes the accounts due on December 31st as well as moneys actually received.

Water Supply.

The water supply has been carefully analysed by me both chemically and bacteriologically on a number of occasious during the year. Special samples from districts where it was suspected that a good supply was not being obtained have also been analysed. As a result of this a new main has been laid up Pink Bank Lane, Reddish, and a number of houses and farms there supplied with Corporation water. As a check upon the bacteriological examinations made in the Sanitary Department laboratory samples have also been submitted to Professor Delépine, whose findings agree very closely with my own. The Longdendale water as an average of several examinations is found to contain 23 aerobic micro-organisms growing on nutrient gelatine per gramme of water, 17 of these being non-liquefying bacteria, 3 being liquefying bacteria, and the other three colonies moulds. There were no bacteria to be found associated with disease or with sewage or other similar pollution. In the Disley supply the average number of colonies growing on nutrient gelatine were 85 per 1 gramme of water, 53 of these being non-liquefying, and 32 liquefying. The average was brought up to a rather high figure by two samples in which the liquefying bacteria reached 50 and 52 per gramme respectively. In no single case has the Disley water been found to contain bacteria associated with disease or with sewage or similar pollution.

Bacteriological Examinations.

This most helpful work has been continued during the year under the system elaborated by Professor Delépine, in whose laboratories the work is carried on. The following cases have been examined:—

	Positive.	Negative.	Doubtful.
Typhoid		 26	
Diphtheria	17	 45	 1
Phthisis		 10	
	20000		
Totals	38	81	1
H	-	_	_

Housing of the Working Classes Act, 1890.

During the year five houses were certified by your Medical Officer to be in a state so dangerous or injurious to health as to be unfit for human habitation.

The situation of the houses was as follows :-

21 and 25, Gorsey Brow.
33, High Bankside.
1 and 3, Watchman's Court, Ratcliffe Street.

A considerable amount of repair was carried out in three of the cases, and the houses put into a habitable state, whilst in the other two cases the premises were voluntarily closed by the owner, and have remained closed ever since.

The following statement shows the work done under this Act, and in similar directions under the Public Health Act during 1904, and a number of previous years.

-		es	L			TT		C . J	C+ for lo	
	-	r the hous	l land se of y.	as gs.	sed.	Hous	es certi ha	ned uni	fit for h	uman
	shed	ed fo	spac spac	with	s clo	(a)	(b)	(c)	(d)	(0)
Year.	Courts abolished.	Houses aboilshed for the purpose of re-erecting houses and other buildings.	Houses abolished and land added to yard space of existing property.	Houses dealt with as dangerous buildings.	Cellar dwellings closed.	Closed by owner on receipt of notice.	Voluntarily closed.	Compulsorily closed by Magistrates.	Put into a habi- table state of repair.	Converted into Workshops.
1893								49	20	11
4						16				
5						10			118a	
6						*			105b	
7						14c			45	
8						6d			2	1
9					18	13		2		
1900	3	42	4	3		14	8e	2		
1	6	18	11	8		2f			1	
. 2	4	44				9			2	
3				2	10		3		3	
4						2			3	

REMARKS.

a.	On	account of ashp	it contents having to b	e carried through houses.
b.		Do.	do.	do.
c.	8 st	bsequently den	nolished by owners.	
d.	4	Do.	do.	do.
e.	4	Do.	do.	do.
f.	9	Do	do	do

Paving and Sewering, etc.

The Borough Surveyor has kindly supplied me with the following information:—

1. Length of back passages paved and sewered during 1904, 496 lin. yds.

paved during 1904 but sewered previously... ... 669 ,

1165 ,,

No vertical shaft ventilators were closed during 1904.
 No surface sewer ventilators were closed during 1904.

5. The length of old sewers taken up and relaid during 1904 was 662 lin. yards.

6. Number of water closets erected in connection with new buildings

during 1904—530.

7. No cellar dwellings were closed during 1904 for purposes of street

improvements, but five cellar areas were closed during that year.

8. No houses were demolished in connection with street improvements during 1904.

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
 (b) Minimum Thermometer
 Temperatures.

(c) Wet and Dry Bulb Hygrometer (Mason's).

(2) Campbell's Sunshine Recorder.

(3) Five-inch Rain Gauge.

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

(5) Grass Minimum Thermometer.

(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 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 1904 is given herewith.

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

LATITUDE 53° 24' 12" N. LONGTITUDE 20 9 14" W.

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

		-				THERM						4	
1904,	Parometer reduced to Sendered	sectors percent		421	ADM:							Balleton Dall	Average Dully
	Ser F.	Present Hencel Sale:	Max.	Min.	Henge	Corrected Mean.	heat.	Soint Stationary	Grace (Miss)	UNDERG	1 Feet	Avera	
													-
1st Week	20-744	95-3	44.2	34-8	9-0	39-039	44-9	429	28-7	39 4	44-4	-01	lire Mine
2nd	29-420	97.1	44-6	36-8	8-8	40-154	44-9	55-1	32-5	40-4	44-0	-13	-
3rd	20-440	96.0	44-0	34-2	9-7	38-516	44-9	50-9	30-2	40-0	41:0	-02	-
4th a	29-774	93-0	45-7	87-4	7-5	40-598	48-7	59-4		40-1	44-0	-06	-
5th	29-314	91-0	40-3	35-5	50	27:361	45-7	620	30.9	40-0	44-0	-12	0 9
Cth	29-117	889	43-0	36-1	6-8	38-554	45-6	007	20-6	39-4	43-1	-05	0 9
7th	29-377	85-6	13-8	31-8	10-8	86-721	47-0	63.6	20-6	38-6	43-0		0 18
8th	30-026	79-9	41-6	36-9	6-4	38-568	45-0	60-7	83-9	39-9	42.1	-02	-
9th	30 104	86-0	37-1	31-5	5-4	83-689	46-4	67-2	25-7	37-7	42-0	-01	0 41
10th	29:077	88-0	45-8	34-2	11.5	38-057	54-0	72-0	28-7	38-4	42-0		0 18
11th ,,	29-890	89-6	46-6	55-4	8-6	40-000	56-0	77-0	31-9	38-6	49-0	-05	0 21
12th	30-197	92-0	47-9	39-1	107	41-821	587	79-6	313	41-3	42.0	-02	0 89
18th a	29-718	94-1	46-8	37-8	7-6	40-836	60-1	87-1	30-6	40-4	42.8	-13	0.54
16th ,,	29-816	93-1	51-3	49.4	9-9	48-968	67-4	25/7	35-9	42.7	42-7	-07	1 51
15th	29-651 30-013	95-1	56-5	420	10-4	47:875	68-1	94-3	84-9	43-9	43-8	-05	0 51
155	29-984	94.0	54-4	45-8	9-8	49-211	67-7	92-4	40-7	461	44-9	-03	0 47
18th	29-785	91-6	55-2	42-7	18-4	47-507	69-4	98-0	36-9	47-1	45-6	-04	10
19th	29-861	94-3	55-5	43-8	10-5	48-764	67-3	90-7	38-1	47-0	46-0	-03	0 26
20th	29-965	95-4	59-4	44-1	15-1	50-848	75-7	104-6	37-9	49-8	46-5	-01	1 30
2144	29-894	94-9	65-8	51-0	13-1	55-361	82-7	107-0	41-0	50-9	40-4	-14	0 13
22nd	30-055	95-0	67:6	48-3	20-1	55-529	84-4	111:8	39-4	53-0	48-6	-08	2 9
93rd ,,	80-078	93-1	64-4	48-0	163	54-548	84-7	115-0	48.1	58-9	49-6	-01	4 17
24th	29-894	93-8	64-6	52-9	11-1	57-414	82-6	113-6	46-0	54-9	50:6	-04	2 49
25th .,	29-997	97-3	62-3	50-6	11-9	54-964	77-0	1029	45-6	54-4	51:0	-08	0.86
26th	29-935	93-7	69-9	51-6	18-0	58-836	87-6	118-0	45-6	55-6	52-0	-03	5 51
27th	30-041	94-1	68-4	52-1	16-3	58-179	85-6	117-0	51-1	58-4	52-7	-02	3 83
28th	30-023	90-9	76-1	58.5	17:3	65-157	93-4	121-1	48-1	68-0	54-3	-	4 30
29th .,	30-012	69-9	76-3	59-1	16-1	63-968	95-4	121-4	59-3	64-7	56-1		3 32
30th ,,	29-835	94-3	70-6	59-0	12-5	61-932	84-6	110-1	58-1	63-6	57-3	-05	0.47
31st .,	29-977	93-1	73-6	56-8	17:1	64-021	93-7	119-1	54-6	68-6	58-0	-05	4 15
32nd ,,	29-996	94-1	65-4	52-6	12-7	57-407	82-0	110-0	35-0	61-0	58:0	-06	3 84
33rd ,,	29-796	96-8	63-6	51-6	13-4	36-264	78-4	106-7	36-3	58-9	57-9	-15	2 2
34th	29-976	93-9	60-4	48-6	10-7	58-211	74-0	100-0	28-9		57-0	-17	1 17
35th	29-945	94-4	69-6	55-1	15-6	50-650	85-3	108-4	32-3		56-6	-04	4 4
36th	29 963	94-7	64-1	51-4	12-9	56-950	78-6	106-7	28-0		50-0	-03	4 17
87th ,,	29-987	93-7	64.7	50-7	13-3	56-536	80-1	105-1	25-3		56-0	-01	3 43
38th	30 214	94:7	68-6	49-4	14-1	52-675	72-1	94-3	23-7		56-0	-	4 30
39th	29-947	91-0	54-2	44-1	11-2	48-225	61-3	78-7	19-1		54-6	-04	2 13
40th ,,	29-909 30-213	91-1	55-6	42-7	19-1	48-618	67-0	87-8			54-6	-04	0 26
41st ,,	29 984	99-0	59-7	51-4	8-3	54-486	64-1	79-7	1000		52-4		2 26
42nd ,,	30 116	94-0	55-1	42.3	12-2	47-875	64-0				52-0	-01	
43rd ,,	30-227	96-3	32-8	48-0	5:0	49-896	56-6				52-0		0 9
44th .,	29-800	95 0	52-5	42-6	11-1	46-921	56-0				51-1		
45th	80-368	95-6	49-8	39-1	9-9	43:891	53-6				50-6		
	29-680	91-3	35-3	27-8	10-4	80-913	38-7				49-6		
47th	29-517	86.7	28-1	32-7	9-3	87-225	40-7		9-0		49-0		
48th		89.2	48-0	35-6	8-0	88-021	44-9				47:0		
49th	29-524	86-6	46-9	37:1	84	41:354	48-0				45-9		
50th		92-3	33-7	27-9	7-5	29-664	36-4				45-0		
51st ,,	30-272	90-4	46.9	35-9	10-5	39-368	45-3				44-7		
52nd ,,	30-161	20.4	40.9	300	10.0	03:008	90.0	01.8	1 37	350	100	-01	1-

		10:01		", stetti

Recommendations in brief for future action.

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

- 1. That the provision of increased accommodation, particularly of a 6 or 8 bed, Observation Block 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. I cannot emphasise too much the importance of this step.
- 2. That the present system of "tipping" ashpit refuse be discontinued, and that in lieu therefore one or more refuse destructors be erected.
- 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)—reproduced in this report.
- 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
- 7. That a Steam Disinfector with Bathing Station be provided at White-hill Hospital (see my Special Report on Smallpox 1902-3).



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COUNTY BOROUGH OF STOCKPORT.

Special Report

ON AN

Outbreak of Smallpox.

1904.

BY MEREDITH YOUNG, M.D.,

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

Medical Officer of Health and Medical Superintendent, Corporation Hospitals.

MARCH 13TH, 1905.



PUBLIC HEALTH OFFICE,

STOCKPORT,

Макси 13тн, 1905.

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

MR. MAYOR AND GENTLEMEN,-

In accordance with the specific instructions of the Local Government Board, I have the honour to submit herewith a Special Report on a recent outbreak of Smallpox affecting the Borough.

The outbreak involved 159 cases, and was the cause of 15 deaths, whilst the town was put to an extraordinary expense of approximately one thousand pounds owing to it.

The history of the introduction of the epidemic into the town by a tramp in February, 1904, and of its subsequent diffusion, is fully given in the report, whilst the preventive measures adopted are briefly outlined, and the requisite statistical information is appended with some short comments.

In the text of the report I have recorded my thanks to my staff for the splendid work done by them, and to the medical profession in the town for their most loyal support. Here I desire to express my gratitude to my Committee for the considerate and businesslike manner in which any proposals of mine were invariably received and discussed, and to the Council for hearty co-operation in all measures of prevention. I trust it may be a very long time before the town has again to face a similar experience.

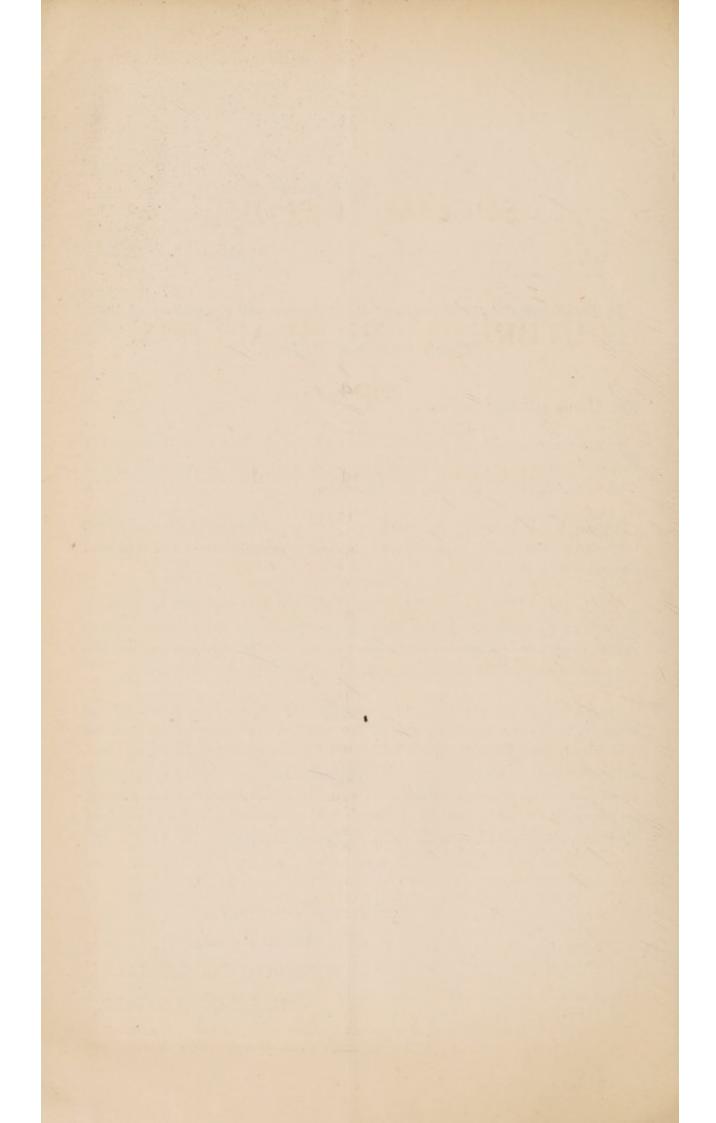
I am,

Mr. Mayor and Gentlemen,

Your obedient servant,

MEREDITH YOUNG, M.D.,

Medical Officer of Health.



SPECIAL REPORT

ON AN

OUTBREAK OF SMALLPOX,

1904.

Origin and Spread of Epidemic.

HE epidemic of 1902-3 continued into the early part of 1901, but was then well in hand and was dying out rapidly. In October, 1903, we had only had 2 cases, in November and December none at all, and in January, 1904, 3 cases, the last of which left the Hospital on February 4th. On February 8th a clergyman who had been visiting some of the cases which occurred in January, unfortunately contracted the illness, but his case formed the last one in the outbreak of 1902-3.

Most unfortunately for the town, however, early in February a man named Foy, who was tramping in search of work, came from a Union some little distance away to the Stockport Union, but was unable to gain admission on the night of his arrival in Stockport. This is the information he gave us:— He had gone to the Workhouse on February 10th, feeling very ill, and had asked there to see the doctor. The porter told him that he could not see the doctor then, and gave him a ticket for a certain lodging-house. On Thursday morning, the 11th of February, he went to the relieving officer, who gave him an order to see the doctor. The doctor gave him a note to the relieving officer, and the relieving officer sent him to the Workhouse. He was not able to see the Medical Officer of the Workhouse until Friday, the 12th of February. Two people in the Workhouse noticed on the 12th of February a number of spots on his face and body, and spoke about the appearance of these spots to him. Being dissatisfied with the attention he received in the Workhouse he asked for his clothes on Saturday, the 13th of February, and left the place. He started off for Stockport, passing through Knutsford, Wilmslow, and Cheadle, and arriving at Stockport about 5 o'clock in the evening, getting a lift on the way in a van that was taking yarns. Being too late to see the relieving officer that evening, he went to a lodging-house in the town, and was admitted on the lodging-house keeper being informed that he had just come from the ---- Union Workhouse. The lodging-house keeper was rather suspicious of him, but on hearing what place he had come from felt quite sure that he would have been detained there had there been anything really the matter, and so admitted him to the house. A number of men in the lodging-house spoke to him about the eruption on his face

and hands, and several of them told him he ought not to be in the house at all. He gave the same excuse to the whole of them, and eventually went to bed in a room where about 35 men were sleeping.

The lodging house keeper next morning, being somewhat suspicious of the man, sent for me, and on examining him I found his face, hands, wrists, and body to be covered with a copious eruption which was certainly not in the initial stage, but, in my opinion, was at least 48 hours old; many of the spots were in the second or vesicular stage, a thing which might take place at an early date in a mild case, but which in a case of this severity implied that the eruption was almost certainly more than a couple of days old.

As a result of their consideration of the case, the Committee decided to undertake a prosecution against the — Union Authorities for allowing the exposure of this person Foy whilst in an infectious condition. However, on the matter coming before the justices, it was decided by them that the case was outside their jurisdiction, and, therefore, they could not hear it.

I beg to repeat the opinion which I made to your Committee at the commencement of this case that at a time like this, when smallpox was rife in so many parts of the country, particularly in this neighbourhood, and when it is so well known that the tramp is without question the most fertile cause of the spread of this disease, and, therefore, the greatest danger to the community, it is exceedingly unfortunate that the measures adopted at the Workhouse in question did not result in the discovery of at any rate suspicious signs in the man Foy. I have no wish to mete out blame where no blame should be given, and I recognise to the full the immense difficulties which Workhouse Authorities have in dealing with the very serious tramp problem, but I certainly think that a greater appreciation of the suspicious characters attending Foy's illness when he went to this Workhouse might reasonably have been expected.

This case, then, formed the commencement of an outbreak which lasted a very considerable time. The infection was spread by the visitation of private houses, &c., in the town, by common lodging-house inmates and in other similar ways.

A considerable number of cases originated in connection with the "ringthrowing league" as it is termed, a league composed of bands of men who meet at various public-houses and play a game of throwing rubber rings on to numbered hooks on a board. There are several hundreds of such ringthrowers in the town, and they are in the habit of holding competitions first at one public-house and then at another. One of these ring-throwers got smallpox in a comparatively mild degree, and was able, unfortunately, to attend one of the competitions whilst in an infectious condition. The man had not been sufficiently ill to call in medical assistance, and was unaware of the nature of his illness. It was not long after before several more ringthrowers developed smallpox. We were unable to obtain reliable information as to the public-houses which had been frequented by these men, or as to those persons with whom they had come in contact, in fact it was only with the greatest difficulty that we obtained any information at all. At length, however, by the exercise of what was perhaps unwarrantable bluff we secured a fairly complete list of names and addresses of those who had been likely to come in contact with infection, and on visiting the houses of these men 5 cases were brought to light. The great difficulty we had in obtaining the information necessary for sateguarding the public in this case emphasises the necessity of the power we are now seeking from Parliament to impose a penalty on persons who wilfully withhold information or supply false information to the Health Department when they are making inquiries in cases of dangerous infectious disease.

In June a most lamentable extension of the epidemic occurred in Higher Barlow Row and streets adjoining. It is perfectly clear to my mind that this particular extension of the outbreak resulted in consequence of the failure of a medical man to diagnose a case of smallpox in a very young child. The parents of the child, the undertaker who buried it, and several of the neighbours who saw it, expressed the opinion to me that it could not have been anything else but smallpox, and that they suggested this as a diagnosis to the doctor attending the patient on more than one occasion. Evidence of this kind is always of questionable value, and had it not been for subsequent developments bearing out its correctness I should not have mentioned it. The doctor concerned is said to have informed the parents that it was a severe skin disease, and when the child died the death certificate gave the cause of death to be broncho-pneumonia. Just a fortnight after this child's death other cases began to arise in this neighbourhood, and the disease in a very short time had taken possession of the houses Nos. 13, 15, 19, 21, 23 (two cases), and 25 (two cases), Higher Barlow Row; 14, Bay Street, just off Higher Barlow Row; 130, Higher Hillgate; 18, Barlow Street (two cases); Kettle's Court, Bosden Street (two cases); Kirk's Court, Angel Street; lodging-house in Canal Street; 24, Canal Street-all these being in the immediate vicinity-whilst other cases due to the same source of infection occurred in Bamford Street, Bailey Street, Read Street, Ward's Avenue, Ratcliffe Street, etc. This circumstance was the cause, in my opinion, of the sudden rise in the number of cases in June and July, shown in the accompanying chart. It is extremely regrettable that this occurrence should have taken place, and your Committee felt the position to be such a serious one that it was for some time deliberated whether or not an exhumation of the body should be applied for and legal proceedings taken against the medical man concerned. However, a perhaps better counsel

prevailed, and a letter was sent urging the doctor concerned to use the greatest possible care during the continuance of the epidemic in all doubtful cases of smallpox or similar eruptive disease, and pointing out to him that the services of your Medical Officer of Health were always at his disposal to assist in arriving at a correct diagnosis in dubious cases.

On July 12th I received information from a woman living near that a person resident in Read Street, Hillgate, was suffering from smallpox. On visiting the house I found a certain man in the scabbing stage of what must have been a severe attack of smallpox. I recognised instantly what he was suffering from, and questioned him as to its occurrence, but he sought refuge in assumed stupidity, and I could get no satisfaction from him. On making inquiries as to any other possible illness in the house, I elicited the fact that his wife was upstairs in bed ill, and on going to see her I found that she was commencing with a severe confluent attack of smallpox. On further inquiry still I found a daughter suffering from a mild attack. The three sufferers were removed to the hospital for isolation, and the whole of the family were removed for disinfection, etc. We learnt that this man had been going about the town pretty freely whilst suffering from a moderately severe attack of smallpox, and we traced quite a number of cases in this neighbourhood to the distribution of infection by him. He had called in no medical man when he was ill himself, but as it was pretty evident from certain remarks he let fall that he had an idea what was the matter with him, and feared to call in medical aid because in such an event he would have been pronounced ill of smallpox and have been stopped from his work, the Sanitary Committee decided to prosecute him for not reporting his illness. This was done, and he was sent to prison by the magistrates.

On one occasion a person suffering from smallpox gained access to the Infirmary outpatient-room, but his illness was promptly detected by the medical man in attendance, a telephone message was sent to me, and by the combination of prompt removal, thorough disinfection, etc., all danger was quickly averted, and no single case, except that of a person lodging in the same house and who refused to be revaccinated has, to my knowledge, been due to this occurrence.

The Reddish portion of the Borough suffered to a somewhat unexpected extent, owing, in my opinion, to its propinquity to and intercommunication with Gorton and Manchester.

During the outbreak under present consideration 159 cases were reported. The distribution of the disease was very similar to that of the previous epidemic of 1902-3. With the exception of the lodging-house to which the tramp James Foy went, the common lodging-houses did not suffer so severely as in the previous epidemic, but there can be no question that the strict measures adopted by us of nightly inspection, prompt removal, thorough disinfection, &c., prevented the development of the disease in these dangerous quarters. Had the disease been once allowed to obtain a footing in the lodging-houses there is no telling where it would have ended. From time to time we did get a single case breaking out in one lodging-house or another, but with the single exception of the house first visited by James Foy, the measures adopted by us prevented any extension beyond this first case.

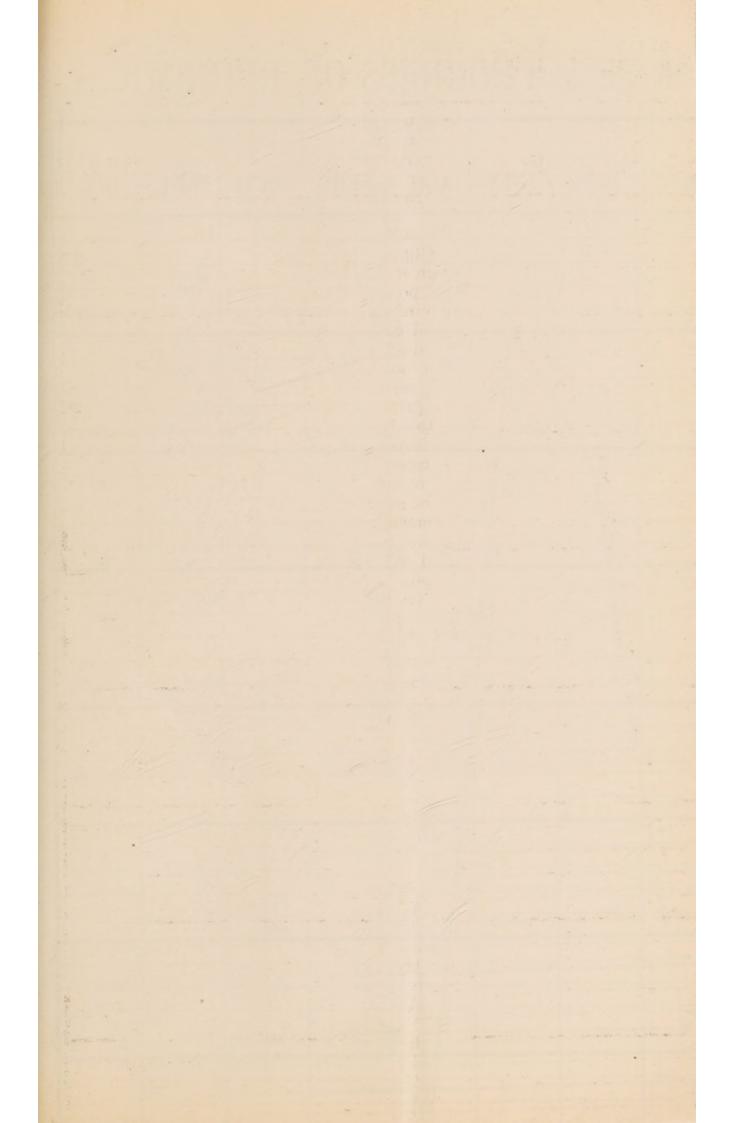
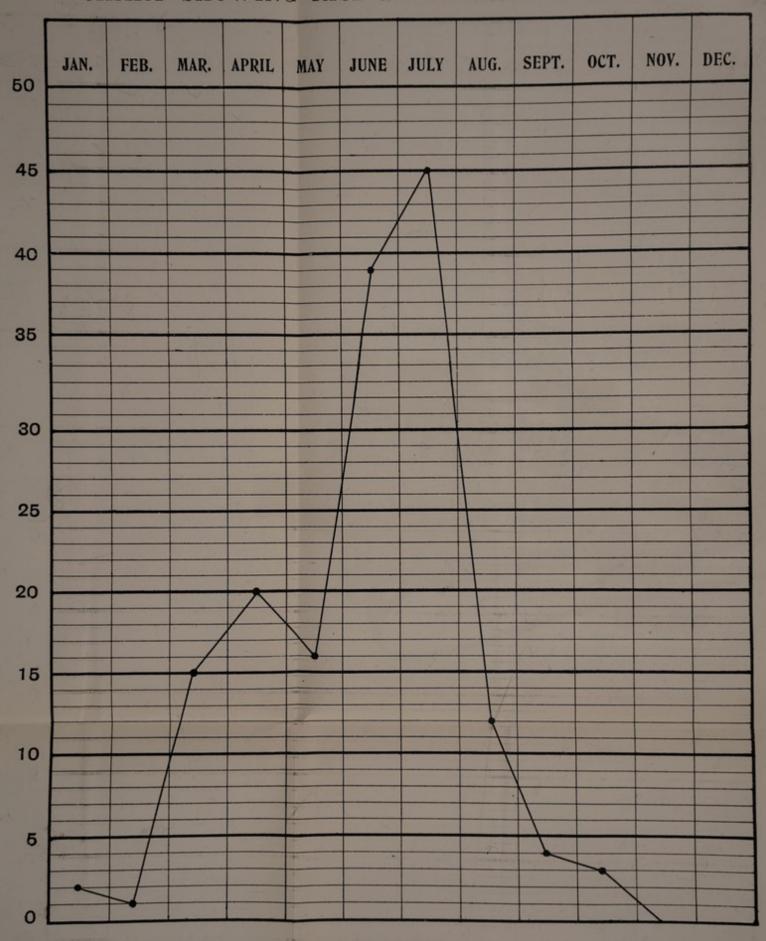


CHART SHOWING RISE & PROGRESS OF EPIDEMIC.



Again, the Union Workhouse was time after time infected by the introduction of cases from without, and as this institution has a resident population of close upon a thousand the anxiety occasioned by the occurrence of small-pox in it can readily be imagined. However, by co-operation with the Union authorities, who certainly worked in a most public-spirited and persevering manner, we were here again able to check the extension of the disease.

Sources of Infection.

In dealing with every case of smallpox which came to our knowledge the first as well as the most important question which had to be answered was: "Where has the case been infected?" Until this question was satisfactorily answered considerable uneasiness was experienced by the Department lest some unsuspected cause of infection should be at work. In 113 cases, however, out of the 159, an unusually high proportion of the number, the source of infection was traceable with a fair degree of precision, though often at very considerable trouble. In most outbreaks it is unusual to be able to localise the source of infection in more than about 50 per cent. of the cases reported, so that we are to be congratulated on the good fortune which attended our inquiries.

It would serve but little good purpose to detail our experiences in this matter. I should like to say, however, that in no branch of sanitary work is skill and tact so requisite as in the tracing out of the causes and origins of infectious disease, and especially of smallpox. Amongst the uneducated any inquiry, the object of which they cannot quite understand, may be answered truthfully as a matter of accident, but is seldom so answered as of deliberate intent. Fencing is much more the rule, and is of a persistent and dogged type. It is here that tact is of service, and I am pleased to say that those inspectors who were put on special duty during the outbreak exhibited this necessary quality in a most satisfactory degree.

With notably few exceptions the employers of labour in the town and district rendered us valuable assistance in this work, and in return we notified them promptly of cases which were a danger to them or their workers.

The school teachers in a similar manner came to our assistance, and I have on many occasions been called to schools to examine and pronounce upon dcubtful rashes and eruptions in children who had been put on one side in a separate room as "suspects" by the teacher.

The common lodging-house inhabitants were the most troublesome persons to deal with. Having nothing at stake, as it were, they frequently refused any information at all, or gave information which we subsequently found to be utterly untrue. It was no uncommon thing for them to make two perfectly contradictory statements in the course of a five minutes conversation. The keepers of the common lodging-houses, however, often went to considerable trouble to assist us in our inquiries.

The experiences of this and the previous epidemic led your Medical Officer of Health to obtain the insertion in the Omnibus Bill your Corporation is

now taking before Parliament of a clause penalising the withholding of information or the giving of false information in cases of dangerous infectious disease—a power which it is sincerely hoped Parliament will grant.

Precautionary Measures taken during the Outbreak.

On the discovery of a case of smallpox the sufferer is at once removed to Whitehill Hospital; the names and addresses of every person who can be ascertained to have been in contact with the case are obtained; anyone who is in the house or who has been in contact with the case since the disease commenced is taken to the Disinfecting Station at Dialstone Lane Hospital and receives a bath, and has his or her clothing disinfected. All infected bedding, clothing, etc., is disinfected by steam or burned. The infected house is itself usually fumigated by formalin (5 one-gramme tablets being used per 100 cubic feet), the paper, etc., being stripped subsequently, and the room occupied by the sufferer limewashed and thoroughly cleansed. In certain cases where the case has been an unusally long time at home, the walls, floors, ceilings, etc., are sprayed with 1 per cent. chloride of lime solution or 1 in 1,000 perchloride of mercury.

All schools, workplaces, etc., are at once informed of the names and addresses of persons who have been in contact with a case of Smallpox, and are advised as to the time at which the contact cases may safely return to work or school.

All persons who are known to have been in contact with a case of Small-pox are offered gratuitous vaccination, either by the Public Vaccinator or by your Medical Officer of Health, a special notification being sent to the Vaccination Officer of the names and addresses of cases of Smallpox. In a number of cases the vaccination or re-vaccination has been performed gratuitously by your Medical Officer of Health to prevent loss of time.

In cases where persons suffering from Smallpox are found to have travelled through other districts prior to arriving in Stockport, or where we ascertain that it is their intention to travel on from Stockport to some other town, the Medical Officers of Health of these other districts are advised by wire or letter of the occurrence of the illness and of the patient's name and the place at which he or she had stayed or is about to stay in their district.

Every person who has been in contact with a case of Smallpox is kept under supervision for not less than 16 days.

Placards are posted in all the living rooms and most of the sleeping rooms of all the common lodging-houses describing in simple language the first symptoms of Smallpox, drawing attention to the necessity for immediate notification, and advising vaccination, and giving the names and addresses of the Public Vaccinators.

No undertaker is allowed to undertake the burial of a case of Smallpox unless he can satisfy the Medical Officer of Health that he has been recently successfully vaccinated. The utmost firmness proved necessary in enforcing this most necessary precaution.

One of the Special Inspectors attends all burials of Smallpox cases, and sees that the body is buried at a suitable depth with quicklime below and above, and that no person incurs any risk by crowding round the grave or coffin. The clergy are advised of the danger of taking any such coffin into a church or chapel.

In addition to the registered common lodging-houses, a number of houses in which lodgers had been known from time to time to be received surreptitiously, have also been visited occasionally by the Inspectors or myself at night in order to detect any possible case in its early stages.

A house-to-house visitation in certain streets in the Hillgate neighbourhood was made in order to find out any cases which might possibly have been concealed.

Handbills similar to the attached (see Appendix) were circulated from house to house in the Hillgate neighbourhood, and in all infected localities. Every house in every street off Hillgate, from the Blossoms Hotel down to Wellington Street, received one of these handbills.

Disinfectants were freely distributed gratuitously to all applicants—many hundreds of gallons being thus dispensed.

In the majority of cases persons who had been exposed to infection in such a manner as to be likely to carry the infection about on their clothing, submitted readily to all the necessary disinfection and bathing. We made every arrangement possible for their comfort and convenience, sending them up in the large ambulance, and either giving them tram money for return home, or in special cases where there were invalids concerned or when the hour at which the work was concluded was a late one at night (a fairly frequent occurrence) sending them home in cabs and always providing them with necessary refreshments. In a few cases where the people concerned showed us that they had been at any loss of work owing to our action in taking them to be disinfected, we granted reasonable compensation. But in several cases we had the utmost difficulty in securing the removal of the persons who had been in contact with infection, and in one of these cases the opposition was so violent that the whole street was in an uproar, and I had to take the law into my own hands and lock the people in the house so that I could go and call in three police officers to my assistance before I could get the necessary disinfection carried out.

Statistical Information.

Tabular statements giving the statistics of the outbreak will be found in Appendix A.

In Table 1 the age distribution of the reported cases and deaths is shown. The Table, although it only relates to a comparatively small number of cases, brings out the now well recognised fact that smallpox, owing to the extent of infantile vaccination, is not a disease to be seriously dreaded by the young either as regards attacks or deaths, except, of course, the young unvaccinated portion of the community. It may be noticed from the Table that the bulk of the attacks occurred in persons over the ago of twenty years when the protective influence of primary vaccination might be said to be exhausted. It is remarkable to notice that out of five cases which occured in children under one year of age, all of whom were unvaccinated, no less than four died. The total deaths amounted to 15, a somewhat heavy percentage, but one which is accounted for by the fact that the large majority of the cases occurred in the very poorest of the population, who from their irregular habits of life, poverty, want of sufficient nourishment, and the like, had very little disease-resisting power.

The succeeding Tables give some further details as to the vaccinal condition of those attacked. **Table 2** shows that out of 94 persons attacked who presented unequivocal evidence of vaccination successfully performed in infancy or childhood, there were only 7 deaths, whilst in those presenting no vaccination marks and no other evidence of vaccination, out of 40 attacks there were 6 deaths, or a number about twice as great in proportion. Amongst the revaccinated cases there were no deaths whatever.

Table 3 gives a statement based upon the classification issued by the Local Government Board of the condition as to vaccination of persons attacked. The Local Government Board classification is not exhaustive, and I have amended it in two particulars. In the first place there is nothing on the Local Government Board classification to enable one to indicate whether the vaccination scars are good, bad, or indifferent, or whether they are foveated or not. In the second place there is no column left in their classification for cases where primary vaccination had been performed but only after the case had been infected by smallpox. These deficiencies I have remedied.

In **Table 4** the severity of the attack in persons of different vaccinal condition is shewn. A glance at the Table will show the advantage as regards mildness of attack, and as regards recovery from the disease to be distinctly to the advantage of those properly protected by vaccination.

The whole of the staff of the Sanitary Department and of the Hospital were properly protected by vaccination except in one solitary case where a laundry woman who was engaged during my temporary absence unfortunately developed the disease. She was vaccinated immediately on going to the hospital, but this vaccination did not take. On the third day it being evident that the vaccination was not taking she was again vaccinated. The second vaccination developed but not in sufficient time to prevent an attack of smallpox which, however, was not severe and from which the woman recovered.

Cost of the Outbreak.

It will be undoubtedly interesting to your Committee to have a fairly complete statement of the expenditure incurred in dealing with an outbreak of

the character just described. I therefore submit this (see appendix B) with only one remark, which is that had it not been for the fact that certain patients (whose stay in the hospital was paid for by the Guardians or by neighbouring local authorities) brought your Committee in an income of £650, the expenditure would have been a rather serious one. It is probable that the whole of the cost of the epidemic is not shewn in the statement appended for the reason that during such a time the Sanitary Department is specially active and is put to a very considerable expense in the way of disinfectants and disinfection, as well as in an increased expenditure in sanitary inspection, clerical work, and the like. The gross cost of the outbreak was roughly speaking £1,000.

General Remarks.

The Hospital at Whitehill proved to be not one whit too large for the work it was called upon to do. The staff worked admirably in all respects, and the amount of work which fell upon them can be very much more easily imagined than described. There is no Department in the Corporation which ever has work to do at all approaching in severity that of the Sanitary Department during an outbreak of Smallpox, a fact which seldom seems to be fully realised. Everyone in the Department, I think I may safely say, is imbued with the strong feeling that any laxity in dealing with this loathsome and virulent disease may mean its extension to a large number of the population, involving an enormous financial loss to the town, and accordingly no half-measures are adopte l. The work which fell upon your staff during the outbreak under discussion was even more severe than that which they had to carry out during the previous epidemic, the number of cases with which the Department hat to deal for example being half as many again i.e. 159 in the present outbreak as against 109 in the one before. But it was not so much the actual number of cases as their wide diffusion in crowde l and poor localities, and their constant breaking out in institutions such as the workhouse and the various common lodging-houses which occasioned the necessity for greater and more persistent watchfulness on the part of the Sanitary Department.

I cannot close the Report without placing on record my high appreciation of the work done by the staff during this trying time. One and all when called upon to take part in the work responded with alacrity and persisted in their endeavours with an ardour that knew neither time nor trouble.

I am grateful too to the medical men in the town for drawing my attention so promptly to cases of Smallpox, and particularly for their courtesy in allowing me to see a large number of doubtful cases. So long as this practice is continued of the Medical Officer of Health placing his services unreservedly at the disposal of the medical practitioners in the town for consultation or advice in "borderland" cases, and so long as the offer of the Medical Officer of Health is accepted and acted upon, for just so long will there be practically no danger from the unrecognised or overlooked case.

APPENDIX A.

Statistics of the Outbreak.

TABLE I. SHEWING TOTAL SMALLPOX CASES REPORTED DURING OUTBREAK.

(January 6th to October 23rd, 1904.)

Age Period in years.	Under 1	to 5	5 to 15	15 to 20	20 to 25	25 to 30	30 to 40	40 to 50	50 to 60	60 to .70	70 and Over.	Totals
No. of Cases	5	3	18	9	17	22	48	12	22	3	1	159
No. of Deaths	4	0	1	0	1	1	3	1	3	0	1	15

TABLE II. SHEWING AGE, DISTRIBUTION OF CASES, AND DEATHS.

Total	Cases	159
	Deaths	15

I .- Presenting Vaccination Marks:-

Vaccination Performed in Infancy or Childhood only.

(Column A in Table IV.)

				Attack	s.	Deaths.
Aged	und	er 10 y	ears	3		-
+ ,,	from	10 to	20 years	6		
,,	,,		30 years	31		2
23	,,		40 years	30		3
,,	,,	40 to	50 years	6		1
,,	,,		60 years	15		1
,,	,,	60 tr	70 years	3		
			Total	. 94		7

II .- Presenting no Vaccination Marks :-

(Columns B and C in Table IV.)

	Attack	s.	Deaths,
Aged under 10 years	13		2
,, from 10 to 20 years	5		1
,, ,, 20 to 30 years	4		
,, ,, 30 to 40 years	9		
,, ,, 40 to 50 years	3		-
,, ,, 50 to 60 years	5		2
,, ,, 60 to 70 years			-
,, 70 years and over	L		1
Total	40		6
	-		No. of Concessions

⁺ One case vaccinated when six years of age.

III .- Re-vaccinated and other Cases :-

(Columns D to I in succeeding Table.)

					Attack	s.	Deaths.
Aged	und	er 10 y	year	s	2		2
,,	fron	10 to	20	years	_		
,,	,,	20 to	30	years	3		
,,	,,	30 to	40	years	9		
11	,,	40 to	50	years	6		_
,,	,,	50 to	60	years	2		
,,	,,	60 to	70	years	3		
				Total	25		2
							-

TABLE III. SHEWING CONDITION AS TO VACCINATION OF PERSONS ATTACKED.

ON.	A.—Presenting a Vaccination Scar or Scars Poor	49 45							
PRIMARY VACCINATION.	B.—Presenting no Vaccination Scar or Scars :								
COI	(1) Stated to have been vaccinated								
VAC	(2) Not stated to have been vaccinated								
X	(3) Stated to be unvaccinated	17							
IAR	but never successfully								
	C.—Presenting no Vaccination Scar or Scars, but showing marks of vaccination performed subsequently to the case having been infected by smallpox								
TON.	D.—Stated to have been successfully re-vaccinated								
CINAT	E.—Stated to have been re-vaccinated, but unsuccessfully								
RE-VACCINATION.	F.—Successfully re-vaccinated only after the case had been infected by Smallpox	17							
PREVIOUS SMALLPOX.	G.—Stated to have previously suffered from Smallpox	None							
	П.—Vaccination doubtful.	1							
	I.—Primary vaccination performed, but only after case had been infected by Smallpox								
-									

TABLE IV. SHEWING SEVERITY OF ATTACK IN RELATION TO VACCINATION.

A.—Presenting Vaccination Marks.
Mild cases
Severe cases
Deaths
B.—Presenting No Vaccination Marks.
Mild cases
Severe cases
Deaths 6
C Presenting No Vaccination Scar or Scars, but shewing marks of
vaccination performed subsequently to the case having been infected by Smallpox.
Mild cases 3
Severe cases
Deaths
D.—Stated to have been successfully Re-vaccinated.
(See Note A below.)
Mild cases
Deaths 0
E Stated to have been Re-vaccinated, but unsuccessfully.
Mild cases 0
Severe cases
Deaths
F.—Successfully Re-vaccinated only after the case had been
infected by Smallpox.
(See Note B below.)
Mild cases
Deaths 0
G.—Stated to have previously suffered from Smallpox.

None.

of

H .- Vaccination · Doubtful.

Mild e	ases		 	 	 	 	 	 0
Severe	cases	·	 	 	 	 	 	 1
	Deatl	hs		 	 	 	0	

I.-Primary Vaccination performed, but only after case had been infected by Smallpox.

(See Note C below.) Mild cases Severe cases..... Deaths 2

Note A (See column D in preceding table).

Ages, &c., of Persons Attacked in Re-vaccinated Cases.

Age	in	yea	rs	š.								Att	ac	ks.
	30												1	
	33												1	
	86												1	
	56												1	
		· De	ea	t	h	S-		1	V	01	n	e.		

NOTE B.

The following are the dates on which revaccination was performed, and the dates on which the eruption of Smallpox appeared in those cases recorded as having been successfully revaccinated after the case had been infected by Smallpox.

(Column F in preceding Table).

				ate of cination.		Date of appearance of Smallpox eruption.					
No.	1 c	ase.	March	24th and 28th		March 30th.					
,,	2	,,	,,	29th	*	April 5th.					
,,	3	,,	April	13th		,. 20th.					
,,	4	,,	,,	29th		May 13th.					
,,	5	11	May	21st		,, 28th.					
,,	6	,,	,,	21st		,, 29th.					
,,	7	,,	,,	24th		June 5th.					
,,	8	,,	,,	29th		June 9th.					
,,	9	22	June	27th		June 29th.					
21	10	11	July	12th		July 19th.					
,,	11	,,	"	16th		,, 17th.					
,,,	12	1)	,,	18th		,, 19th.					
,,	13	,, -	*1	18th		,, 19th.					
,,	14	,,	,,	19th		,, 20th.					
,,	15	,,	,,	21st		,, 27th.					
,,	16	,,	Augus			August 9th.					
,,	17	,,	Septer	mber 28th		October 8th.					

NOTE C.

Primary vaccination performed only after case had been infected by Smallpox.

(See Column I. in preceding table.)

	Date of	Da	ate of appearance
Age.	Primary vaccination.		of smallpox eruption.
8 days.	 June 29th.		July 3rd.
10 days.	 June 29th.		July 5th.

APPENDIX B.

Expenditure on Whitehill Hospital Account from January 1st to Dec. 31st, 1904.

	£	s.	d.
Wages	85	18	61
Food, Stimulants and Drugs	438	0	9
Coal, Coke, Gas and Water	64	10	9
Rates and Taxes	26	10	10
Furniture and Bedding	30	7	6
Ironmongery	4	6	11
Drapery	9	19	2
Services of Extra Nurse	68	15	6
Medical Assistance	78	2	0
Notification of Infectious Disease	19	7	6
Disinfectants	10	0	0
Cab Hire	50	0	0
Printing, Stationery, Advertising and Stamps	4	18	3
Repairs	5	2	0
Crockery	2	9	1
Wages	40	0	0
Cleaning Materials	2	0	4
Ambulance Horses' Keep, &c	25	0	0
Miscellaneous	2	2	1
_			
	997	6	21
Less amount received for Treatment of Outside Patients	649	5	6
	348	0	81

APPENDIX C.

COUNTY BOROUGH OF STOCKPORT

SMALLPOX.

This disease, which is one of the most infectious, dangerous, and loathsome of illnesses, has now appeared in the town, and especially in the district in which you live.

Persons coming in contact with cases so mild as scarcely to be noticeable may take the disease in a severe and fatal form.

The signs of the disease are first of all headache, pain at the bottom of the back, and possibly sickness, feverishness, etc. A couple of days after this, little red pimples or spots appear on the forehead, face, wrists, body, and limbs: these pimples become altered in the course of another day or two and then look like blisters: again after a day or two, these blisters may become filled with yellow or whitish matter, or may dry up, forming a reddish brown scab.

When the rash first comes out the affected person often feels better for a short time, becoming worse again as the rash changes.

The disease is highly infectious from the very commencement.

There is one thing, and one thing only, known to be a protection against Smallpox, and that is VACCINATION properly performed and repeated after the lapse of five or six years.

Persons exposed to infection—that is, who have been in the same house or same room as a case of Smallpox—should be vaccinated without losing an hour's time, unless they have been successfully vaccinated or revaccinated within five years.

Unvaccinated Children take Smallpox very readily and die from it at a

terrible rate.

All cases of Smallpox, or suspected of being Smallpox, must be reported WITHOUT DELAY to the Medical Officer of Health, at the Sanitary Office, Great Egerton Street, off Heaton Lane, Stockport. Anyone failing to report will be prosecuted, and the full penalty of the law asked for.

Persons desirous of being vaccinated by the Public Vaccinators should note their names and addresses, which are as follows:—

NAME.	ADDRESS.
Dr. W. B. BALE,	Heathbank, Shaw Heath.
Dr. WILLIAM BALE, J.P.,	130, Wellington Road North.

The Public Vaccinators will vaccinate Free of Charge any person who has never been vaccinated, or any person over the age of 10 years, even though the latter have been vaccinated before.

NOTE.—Anyone found concealing a case of Smallpox, or otherwise breaking the law against the spread of this or other infectious diseases, will be dealt with as severely as the law allows. No excuses will be taken.

(Signed) MEREDITH YOUNG, M.D.,
Medical Officer of Health.