[Report 1905] / Medical Officer of Health, Rotherham County Borough.

Contributors

Rotherham (England). County Borough Council.

Publication/Creation

1905

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County Borough of Rotherham

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

BY

ALFRED ROBINSON, M.D.,

MEDICAL OFFICER OF HEALTH;

Mem. Royal Coll. Surg., Eng.,

Licent. San. Science,

Ex-President Yorkshire Branch Incorporated Soc. of Med. Off. of Health.

FOR THE YEAR 1905,

Health Committee of the Council

OF THE

COUNTY BOROUGH OF ROTHERHAM.

Chairman :- ALDERMAN HICKMOTT, J.P.

Vice-Chairman : - COUNCILLOR GRUNDY.

Members :- ALL THE MEMBERS OF THE COUNCIL.

Isolation Hospital Sub-Committee:

Chairman :- ALDERMAN HICKMOTT, J.P.

Vice-Chairman :- DR. G. H. LODGE.

THE MAYOR.

ALDERMEN CLARKE, J.P., GUMMER, J.P., and WINTER, J.P.
COUNCILLORS BECKETT, BELL, CRANK, REEVES,
and SEILES.

Officials of the Public Health Department:

Medical Officer of Health:—
ALFRED ROBINSON, M.D., M.R.C.S., L.S.Sc.

Deputy Medical Officer of Health:—
ROBERT G. RIDDELL, M.D., F.R.C.S.E., D.P.H.
Chief Sanitary Inspector:—C. E. PARKIN.

Assistant Sanitary Inspectors:—C. E. PARKIN, Junr. S. F. KNOTT.

Female Health Visitor:—Mrs. A. KEMP.

Clerk:—WILLIAM PEARCE.

ANNUAL REPORT, 1905.

To the Mayor, Aldermen, and Councillors of the County Borough of Rotherham.

GENTLEMEN,

I have the honour of submitting to you my Annual Report on the health of the Borough.

The year 1905 will long remain a red-letter one in the sanitary history of the Borough. Not only do the vital statistics present figures unparalleled by any in former years, but undertakings of the greatest importance to the health of the town have been brought to completion during the year.

The death-rate has reached the unprecedented figure of 13.93 per thousand, which is lower than has ever before been recorded. It is also considerably lower than the general death-rate of England and Wales, which has never before shown such a small figure.

The infantile death-rate is 123 per 1,000 births, the lowest rate ever recorded, but still much too high. The rate of death from zymotic diseases was 1.16 per 1,000 of the population, and it is to be noted that no death occurred from measles, and only 2 from typhoid fever.

The birth-rate continues to decline, and at 31.91 per 1000 of the population has reached a point to which it has never before descended. It compares favourably, however, with the birthrate for the whole country, which was only 27.2.

The only epidemic of any importance which visited the town was one of scarlet fever, which was at its height at the close of the year. Measles was almost entirely absent, and diarrhœa was much less marked than in former years.

The opening of the new Isolation Hospital has been one of the most important events of the year. The town is now possessed of a fine set of buildings, up-to-date in every respect, and well equipped for the treatment of infectious diseases.

An event of equal if not greater importance to the health of the Borough has been the establishment of a pure water supply. Ever since my first appointment as Medical Officer of Health, I have year after year pointed out the dangers of the impure water which was formerly supplied to the town, and it is a matter of the greatest satisfaction to find that the water from Ulley and Dalton has been replaced by the pure supply from Langsett, and a constant menace to the health of the town thereby removed.

The appointment of a Female Health Visitor, which has been sanctioned by the Council, can only be productive of great benefit,

particularly to the young infant life of the town. I have for many years pointed out the advisability of such an appointment in view of the large number of deaths of infants that occur yearly from preventible causes.

Land has been purchased for the erection of a small pox hospital and the construction of a building which will be available should occasion arise, is now under consideration.

The coming in force of the Midwives Act has necessitated a considerable amount of work in connection with the enrolment and inspection of midwives. The gradual disappearance of the untrained midwife, with her accompaniments of dirt and disease, is the result that is expected of the new Act.

Much of our energies in the future must be directed against the scourge of tuberculosis, which, in the form of consumption of the lungs, accounted last year for one out of every five deaths in persons between 15 and 60 years of age. I would again suggest that a step towards combatting the disease would be the notification of cases, which would lead to the disinfection of houses, and the instruction of patients in methods for preventing the spread of the disease.

The bacteriological department, under the charge of Dr. R. G. Riddell has again done good work. The number of specimens examined was 288, an increase on previous years, showing that the work is being appreciated by the medical men of the town.

I must again express my sincere thanks to the Mayor, Chairman, and Committee for their valuable support during the past twelve months. The chairman, Alderman Hickmott, J.P., especially has devoted a very large amount of time and energy in connection with the new Isolation Hospital, which, thanks in a very large measure to his efforts, is in thorough working order, and up-to-date in nearly every respect.

The Town Clerk has always been ready and willing to give me the benefit of his legal knowledge, on the frequent occasions on which I have had to consult him.

To the sanitary staff, and in particular to Mr. Parkin, senr., I must tender my thanks for their devotion to duty, which on many occasions has been far from pleasant.

I am, gentlemen,

Your obedient servant,

ALFRED ROBINSON, M.D.,
Medical Officer of Health.

SECTION I.

VITAL STATISTICS.

POPULATION.

I estimate the population of the Borough at 61,000. The natural increase of population by births over deaths amounted to 1099 during the year. The number of habitable houses in the Borough is 11,795, so that there is an average of about 5.1 to each house.

TABLE 1.

VITAL STATISTICS FOR THE YEAR 1905.

1905.	England and Wales.	76 Great Towns.	142 Smaller Towns.	Rural England and Wales.	ROTHER- HAM.
Birth Rate	27.2*	28.2	26.9	26.3	31,91*
Death Rate	15.2*	15.7	14.4	14.9	13.93*
Zymotic Death rate	1.52	1.88	1.50	1.09	1.16*
Infantile Mortality (per 1000 births)	128*	140	132	113	123*

^{*} Lowest ever recorded.

BIRTHS.

The total number of births registered during 1905 was 1915, being 15 fewer than last year, and giving a birth-rate of 31.91 per 1000 of the population, the lowest rate ever recorded in Rotherham. In common with that of the rest of England the birth-rate has of late years been steadily declining. In Table V. will be found some interesting comparative figures, and it will be seen that in 1874 the birth-rate was 49.33. The significance of the decline is apparent when we consider that with a birth-rate of 49.33 a population of 60,000 would produce 2,959 children, that is to say, there would be over 1000 more births in the year than there are at the present rate.

Of the children born, 980 were males, and 935 females.

The number of illegitimate births was 95, a percentage of 4.9 to the total births registered.

TABLE II.

VITAL STATISTICS OF GREAT TOWNS OF YORKSHIRE.

Towns.	Estimated Population, 1905.	Death Rate.	Birth Rate,	Infantile Mortality.
Leeds	456,787	15.3	27.1	152
Sheffield	440,414	17.05	29.72	167
Bradford	286,799	15.13	21.08	144
Hull	258,127	16.0	29.8	153
Huddersfield	94,899	16.97	23.85	119
York	82,362	14.2	27.9	130
Rotherham	60,000	13.93	31.91	123

TABLE III.

Population of and Number of Houses in the Various Wards.

	No.	of Hous	es.	Population.
East	 	964		4940
St. Ann's	 	1268		6495
Clifton	 	1061		5425
South	 	1260		6457
West	 	1034		5299
North	 	1547		7928
Thornhill	 	1624		8323
Masbro'	 	1617		8287
Kimberworth	 	1420		7270
		11,795		60,424

TABLE IV.
VITAL STATISTICS IN 1905 AND PREVIOUS YEARS.

YEAR.	Population estimated to middle of each year.	Births Registered.	Deaths at all ages.	Deaths under 1 year.
1895	48,000 50,000 52,000 53,000 57,000 59,000 56,000 57,000 58,000 59,000	1737 1718 1766 1785 1903 1956 1975 1970 1933 1930	800 751 925 871 934 989 981 865 1004 934	268 256 314 288 322 334 347 278 363 317
Averages of Years 1895 to 1904.	54,900	1867	905	308
1905	60,000	1915	836	235

TABLE V.

Year.	Birth Rate.	Death Rate.	Zymotic D.R*	Population.
1874	49.33	26.21	4.70	28,379
1875	47.92	27.44	5.69	29,319
1876	43.58	20.16	3.66	30,149
1877	43.41	18.98	1.31	31,029
1878	43.97	21.62	5.94	31,631
1879	41.94	18.71	1.52	32,091
1880	41.50	20.16	2.55	34,404
1881	40.16	17.22	1.89	34,782
1882	40.20	20.98	2.84	35.547
1883	33.32	20.56	1.99	35,650
1884	42.46	19.20	3.90	35,650
1885	32.70	18.26	1.96	35,650
1886	41.95	20.25	2.61	35.550
1887	37.61	20.30	2.87	36,000
1888	36.72	18.10	1.38	36,182
1889	38.60	22.65	3.26	36,807
1890	38,39	20.84	3.17	37,907
1891	35.50	24.93	3.51	43,000
1892	35.61	19.00	1.97	44,000
1893	37.13	19.91	3.23	46,000
1894	32.00	16.51	2.08	47,000
1895	36.18	16.66	1.97	48,000
1896	34.36	15.00	1.40	50,000
1897	34.62	18.33	1.65	51,000
1898	34.32	16.75	1.26	52,000
1899	35.90	17.54	0.92	53,000
1900	36.24	18.31	1.62	54,000
1901	35.26	17.64	3.57	56,000
1902	34.56	15.17	1.70	57,000
1903	33.33	17.31	3.19	58,000
1904	32.70	15.83	2.69	59,000
1905	31.91	13.93	1.16	60,000

^{*} Principal Zymotic Diseases.

TABLE VI.—Population, Inhabited Houses, Births, and Deaths. (Gross Numbers.)

Hades II	No. of Inhabited Houses in the Borough	Births.	Deaths.	Total Deaths in Workhouse and Rotherham Hospital.	Estimated Population
1905	11795	1915	836	127	60,000
1904	11,674	1930	934	174	59,000
1903	11,500	1933	1004	122	58,000
1902	11,223	1970	865	108	57,000
1901	11,000	1975	988	104	56,000
1900	11,440	1956	989	104	59,000
1899	11,000	1903	934	82	57,000
1898	10,447	1785	871	90	53,000
1897	10,009	1766	925	74	52,000
1896	9,711	1718	751	75	50,000
1895	9,241	1737	800	68	48,000
Av. of 10 yrs. 1895- 1904.	10,700	1867	906	96	54,000

TABLE VII.—Annual Rate of Mortality, Death Rate Amongst Children, &c.

			illiai cii, cc	0.		
ato sew t	Annual Mortality per 1000 living	Per cent. of Deaths to Total Births.	Deaths of Infants under 1 year per cent. to Total D'ths		Children under 5 years per	of Deaths in Work-
1905	13.93	47.26	30.37	14.31	45.60	13.46
1904	15.83	48.39	33.92	16.42	48.60	14.34
1903	17.31	51.94	36.15	18.77	52.39	12.01
1902	15.17	43.91	32.14	14.11	47.74	12.48
1901	17.64	50.02	35.12	26.09	52.12	10.52
1900	16.76	50.56	33.56	16.86	46.41	10.51
1899	16.38	49.08	34.26	16.80	47.85	8.77
1898	17.86	49.84	31.67	15.15	45.10	8.65
1897	18.70	50.29	34.37	17.28	51.27	6.13
1896	16.51	54.24	30.67	16.83	48.94	8.50
1895	16.66	46.05	33.62	22.67	47.32	8.00
Av. of 10 yrs. 1895- 1904.	16.75	49.53	33.57	18.09	48.75	9.98

DEATHS.

The total number of deaths of residents was 836, of whom 421 were males and 395 were females. This number includes the deaths of 20 residents occurring in institutions outside the Borough. There were also 39 deaths of persons not resident which occurred in the Rotherham Workhouse and Hospital. The death-rate corrected so as to give the rate amongst "residents" is 13.93 per 1000 per annum. This is the lowest death-rate ever recorded in the Borough. There has been a steady fall in the death-rate, as the sanitary conditions of the town have improved.

1875 .. 1885 .. 1895 .. 1905 Death Rate 27.44 .. 18.26 .. 16.66 .. 13.93

Various causes have, however, contributed to the exceptionally low rate of 1905, and chief of these have been the absence of any epidemic of measles or whooping cough, and, most of all, the comparatively small amount of epidemic diarrhœa.

Persons over 60.

In no fewer than 60 cases the cause of death given was "old age." The number of persons who were over 60 years of age at the time of death was 192, a proportion of 23.5 to the total deaths, which compares favourably with the proportions of 22.1 in 1904, 18.5 in 1903, and 21.6 in 1901.

That a very considerable number of the deaths of these old people occurred in the workhouse is an unpleasant reflection upon our social conditions.

The principal causes of death amongst those over 60 were diseases of the heart and respiratory organs, and cancer accounted for 17 deaths.

Adults from 25 to 60.

Of these there were 190, and the chief causes of death were heart disease, cancer, bronchitis, pneumonia, and phthisis. The latter caused the deaths of 31, a proportion of 1 in 6 of persons dying in the prime of life.

Young Persons from 15 to 25.

Of these there were 32, 10 of whom died from phthisis, a proportion of nearly 1 in 3. Only 1 death from zymotic diseases occurred at this age period, and only one from respiratory disease.

Children from 5 to 15.

41 children died at this age period. The zymotic diseases and pneumonia were the most fatal causes, and each accounted for 10 deaths.

Young Children from 1 to 5.

126 deaths occurred at this age period, 31 being from infectious diseases, 20 from pneumonia, and 15 from inflammation of the brain and its membranes.

11

TABLE VIII.

DEATHS Registered at several Groups of Ages from Different Causes, during the Year 1905.

AMERICAN DESIGNATION OF THE PERSON OF THE PE	-	~	-		-	_	-	A STATE OF THE PERSON NAMED IN COLUMN 2 IS NOT THE OWNER.	-	-	NAME OF TAXABLE PARTY.	-	-	-	-
CAUSE of DEATH.	All ages.	Over 60 years.	25 to 60 years.	15 to 25 years.	5 to 15 years.	1 to 5 years.	(Infints) und. 1 yr.	CAUSE of DEATH.	All ages.	Over 60 years.	25 to 60 years.	15 to 25 years.	5 to 15 years.	I to 5 years.	(Infints) und. 1 yr
ALL CAUSES	816	192	190	32	41	126	235	Peritonitis	7	1		1	1	4	1
4 Zymotic	7 199	-						Obstruct'n of Bowels	1			1	. 1		1
1—Zymotic.	17			1	6	9	7	Userict it of bowels	4	0	0				1
Scarlet Fever				1	0	12		Hernia	3	2	2				
Whooping Cough	18 25		1			6		The state of the s	0		2				,
Diarrhea	10000		1		,	0	18	Jaundice	9	3	6				1
Fever, Enteric			0 1	8	1	0		Liver Disease, etc	39	0	0				
Diphtheria		1	1	-1	1	2		Order 5.	-	5	-			,	
Erysipelas	1	1			- 0			Nephritis	7	Ð	1			1	
Croup	4				2	2		Addison's Disease	1	,		1			
Puerperal Fever	1		1					Bright's Disease	5	1	4				
Influenza	6	3	3					Diabetes	2	1	1	4			
Chicken Pox	1					-	1	Kidney Disease	6	1	.5				
Tetanus	1						1	Order 6.							-
Pyæmia	2	1	1			-		Periostitis	1				1		
2—Constitutional.								Joint Disease, etc	2		1			1	
Gout	1	1		533				Order 7.							
Cancer	40	17	21	- 1	1			Abscess	4	91		1		1	2
Rheumatism	6	1	1	1	1	1	1	Carre	5		2	1	1	1	
Purpura	1					1		Sclerosis	1	31	1				
Anæmia, Pernicious	2	1	1		- 3			4—Developmental.	-				-		_
Tuberculosis	25		11	1	3	7	3	Order 1.							
Tabes Mesenterica	3					1	2	Premature Birth	62						62
Phthisis	45	1	31	10	2		1	Spina Bifida	1	11					1
Hydrocephalus	2					1	1	Other Malformations	5						5
Rickets	7					4	3	Teething	5		- 1			2	3
3—Local.								Order 2.	-						
Order 1.								Child Birth	7		6	1			
Cephalitis and								Order 3.		-					
Meningitis	26		2		3	15	6	Old Age	60	59	1				
Apoplexy	9		4					Order 4.				_			
Paralysis	9		1	1				Atrophy & Debility	31					4	27
Epilepsy	4		3	1				Imbecility	1			1			-
Convulsions	33			1		6	26								
Brain Disease, etc	14	7	6	1				Order 1 (Accident or							
Spinal Disease	7	4	1	7	1		1	Negligence).							
Ear Disease	i	8	-		-	1	-	Fractures & Contu's	9	4	4	1			
Order 2.			100					Wounds	1	1	*	-	1		
Aneurism	1		1					Burns and Scalds.	8	-			2	6	
Heart Disease, etc.	72	32	32	3	1	9	9	Poison Plumbism	9		9			0	
Order 3.	12	02	02					Drowning	4	2	-			2	
Throat Disease	1					1		C M	1	-				2	1
	48	19	13			7	9		1						1
Bronchitis	10	19	1.0			-	0	Wounds	0		1	1			
Pleurisy	80	1	0	1	1.0	90	21	Poison	1		1	1			
Pneumonia	68	7	9	1	10	20	21		1		9	1			
Asthma	2	1	1		1	0		Drowning	3		2	1	,		
Lung Disease, etc	9	1	1		1	2		Hanging	1		1		1	4	
Order 4.				-	-			Order 4.	1	i				T-T-F	-
Gastritis	5	1			1		3	Natural Causes	1				1		1
Enteritis	28				- 8	4	24								
				30							-		,		

Shewing the Death Rate per 1000 for the Five Classes of Disease combined in Table IV. for Five Years.	1903 1902 1901	3.19 1.70 3.75	1.91 1.93 1.67	7.59 7.10 6.39	2.73 2.79 2.98	0.74 0.51 0.67
ive Classes e Years.	1904	2.69	1.64	7.15	2.61	0.64
TABLE IX. per 1000 for the Five Class in Table IV. for Five Years.	1905	1.35	2.20	6.58	2.86	0.55
TAB 1000 able 1	Topologia (:	:	:	
e per in T		:	:	:	:	:
h Rat		:	:	:	:	:
Shewing the Deat		I. Zymotic	II. Constitutional	III. Local	IV. Developmental	V. Violent
0,		I.	Ή	III.	IV.	ν.

Infants under 1 year.

There were 235 deaths during the first year of life, corresponding to a mortality rate of 123 per 1000 births. This is a considerable reduction on former years, the average rate for the last ten years having been 172 per 1000 births.

The principal causes of the reduction were the absence of any severe epidemics of diarrhœa, measles, or whooping cough. The climatic conditions of last year were unfavourable to the development of epidemic diarrhœa, and children suffered to a much less extent than usual. The other factors in the production of infantile diarrhœa, namely, want of cleanliness and improper feeding, must still be regarded as being present, for enteritis, convulsions, atrophy and debility, which are mostly due to these causes, claimed a large number of victims.

We cannot, therefore, regard the lowered mortality rate as being permanent, and it would be unwise to relax our efforts for its reduction on account of the low figure reached on account of unusual circumstances last year.

These efforts must be directed towards the improvement of the conditions under which young infants are reared, and this can only be done by carefully instructing the mothers as to the care and feeding of their children. This was the chief end in view, when the Council resolved to appoint a Female Health Visitor; and it is hoped that as knowledge of the elementary facts regarding the care of children becomes diffused, the result may be seen in a permanent reduction of the infantile mortality.

TABLE X.

Year.	Diarrhœa		Con- vulsions	and	6Pri cipal Zymotic Diseases	All other	Tota! Deaths of Infants
1896	24	10	53	32	15	122	256
1897	39	19	46	58	21	129	314
1898	49	33	25	29	13	139	288
1899	46	53	22	36	6	159	322
1900	32	4	36	38	33	191	334
1901	96	2	36	34	18	161	347
1902	28	13	21	29	9	178	278
1903	74	3	26	34	31	196	363
1904	69	7	27	26	19	169	317
1905	18	27	26	27	7	130	235

The comparison of the infantile mortality rate of Rotherham with that of England and Wales and of the great towns will be found in Table I.; and the extent to which the fluctuations of the mortality are influenced by the deaths from diarrhœa and from other diseases can be seen in Table X.

Phthisis.

45 deaths occurred from phthisis, the majority in the adult period of life between 25 and 60. The death-rate per 1000 of the population was .75, as against .65 in 1904. It is chiefly in youth and early adult life that we find persons attacked, and out of 222 deaths occurring between 15 and 60, 41 or nearly one-fifth were due to phthisis. The enormous importance of tubercular disease as a cause of mortality is apparent when we consider that according to the statistics of last year, one person in every seven who has come to adult life dies of tuberculosis.

Cancer.

There were 40 deaths from cancer, as compared with 32 last year. Most of these were elderly people. There is no great prevalence of the disease in Rotherham.

Respiratory Diseases.

Accounted for 125 deaths. Pneumonia was the most fatal, and was the cause of 68 deaths, 51 of which were amongst children. Bronchitis caused 48 deaths chiefly of old persons and young infants.

Violent Deaths.

25 persons died as the result of accident. There were 8 cases of deaths from burns, all of them children. A very prominent cause of death from burns is the catching fire of flanellette. Again and again coroner's juries have called attention to the dangers involved in clothing children in flannellette, and it is remarkable that legislation has not been introduced to prohibit the sale of this dangerous substance.

2 cases of death from lead poisoning were reported, each due to lead absorbed in the industrial process in which the patient worked. Very strict supervision is exercised over industries in which lead is used, and deaths from this cause are now rare.

There were 7 cases of suicide, 3 by drowning, 2 by self-inflicted wounds, 1 by hanging, and 1 by poison. The unfenced portion of the canal known as the "death trap" continues to claim its victims. It is satisfactory to know that efforts are being made to render it less dangerous, and less of a temptation to the would-be suicide.

There was no case of murder or of manslaughter.

TABLE XI—CAUSES OF, AND AGES AT, DEATH DURING YEAR 1905.

		De	Resid	at the lents' or be	' whe	ether	occui	ring et.
Causes of Death.		All ages.	Under 1 vear.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.
Small-pox		0						
Measles		0						
Scarlet fever		17	1	9	6	1		
Whooping-cough		18	6	12				
Diphtheria and Membranous Crou	р	4		2	1		1	
Croup		1 . 1		2	2			
Fever—Enteric		2			1		1	
Epidemic Influenza		S					3	3
Diarrhœa		25	18	6			1	
Enteritis		28	24	4				
Erysipelas		1						1
Other septic diseases		7	2	1	1	1	1	11
Phthisis		45	1		2	10	31	1
Other tubercular diseases		25	3	7	3	1	11	
Cancer		40			1	1	21	17
Bronchitis		48	9	7			13	19
Pneumonia		68	21	20	10	1	9	7
Pleurisy		1						1
Other Respiratory Diseases		8	3	1			2	2
Alcoholism, Cirrhosis of Liver		9					6	3
Venereal Diseases		0						
Premature Birth		62	62					
Child birth		1000				1	6	
Heart diseases		72	2	2	1	3	32	32
Accidents		25	1	8	3	1	6	7
Suicides		7			1	2	4	
All other causes		307	82	45	9	10	56	104
All Causes		836	235	126	41	32	204	198

TABLE XII.-VITAL STATISTICS OF WHOLE DISTRICT DURING 1905 AND PREVIOUS YEARS.

	Population	Births.	ths.	Tot	Total Deaths Registered in the District.	Registe istrict.	red in	Total	Deaths D'ths of of Non-residents	D'ths of residents	Nett D	Nett Deaths at
	estimated to middle of each year. Number	Number	Rate *	Unde	Under 1 Year of age.	Atal	At all Ages.	in Public Institu-	register'd in Public	in Public register'd in Public Institution Public Institution Public Institutions	to the	to the District.
				Num- ber.	Num- Rate per ber, 1000 Births	Num- ber.	Rate.*	in the District.	tions in the District	beyond the District.	beyond Number. the	Rate.*
	5	60	4	10	register'd	7	00	6	10	11	12	13
	48000	1737	36.18	268	226.7	800	16.66	89				
-	20000	1718	34.36	256	148.2	751	15.00	75				- A
	52000	1766	34.00	314	176.6	925	17.78	74				
-	53000	1785	33.00	288	160.2	871	16.05	06				
	54000	1903	33.56	322	168.1	934	16.38	85			10	
	55000	1956	33.15	334	168.6	686	16.76	104	27	16		7
	26000	1975	35.26	347	175.8	886	17.64	104	31	15	886	11.64
	57000	1970	34.56	278	141.1	685	15.17	108	41	13	865	15.17
	58000	1933	33.33	363	187.7	1004	17.31	199	35	14	966	17.17
-	29000	1930	32.70	317	164.0	080	16.60	162	46	14	948	15.83
Averages for years 1895-										acri		ior zai
-:	04500	1866	34.52	309	172	910	16.76	86	33	14	949	14.95
	00009	1915	31.91	235	123	855	14.25	137	39	20	836	13.93
	A STATE OF THE PARTY OF THE PAR											-

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

Norm.—The deaths included in Column 7 of this Table are the whole of those registered during the year as having actually occurred within the district or division. The deaths included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

dying in public institutions there; and by the term "Residents" is meant persons who have been taken out of the By the term "Non-residents" is meant persons brought into the district on account of sickness or infirmity, and district on account of sickness or infirmity, and have died in public institutions elsewhere.

The "Public institutions" to be taken into account for the purposes of these Tables are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses and lunatic asylums. The following tables show the number of houses, population, number of births and birth-rates, the number of deaths and death-rates per 1000 of the inhabitants in the various wards in the borough for the year 1905. The last column in Table XIIb contains the infantile mortality per 1000 births. The tables are of great value, pointing out, as they undoubtedly do, the weak spots in the sanitary administration of the borough. The Female Health Visitor's first duty will be to reduce the infantile mortality in the North, Thornhill, Kimberworth, and St. Ann's Wards.

TABLE XIIa.—1905.

DEATHS AT ALL AGES IN THE VARIOUS WARDS.

18.27 17	E.	St.A	C.	S.	W.	N.	T.	М.	K.	W'house and H'spt'l*	
Jan		10	4	13	7	13	15	9	9	9	89
Feb	7	7	4	6	4	.9	9	9	8	12	75
Mar	3	7	6	6	3	5	10	8	5	6	59
April	3	6	6	6	5	4	14	3	13	9	69
May	5	5	3	3	4	4	10	6	6	10	56
June	2	7	4	4	2	6	4	- 6	11	9	55
July	4	8	4	4	8	7	7	12	6	6	66
August	4	9	5	1	3	9	15	7	4	3 5	60
Sept	2	2	2	4	6	12	5	3	8	5	49
October	3	10	6	7	3	11	13	11	2	6	72
Nov	3	8	4	7	5	16	5	12	5	16	81
Dec	6	15		5	9	11	10	7	10	12	85
	42	94	48	66	59	107	117	93	87	103	816

^{*} This column gives deaths at the three public institutions, the Workhouse, Hospital, and Isolation Hospital.

DEATHS IN THE VARIOUS WARDS UNDER ONE YEAR.

	20	E.	St. A	C.	S.	W.	N.	T.	M.	K.	W'kh'se H'spit'l.	
Jan.		dun is	3	Rine	3	1	8	5	-Uras	2	14 15 100	22
Feb.		2	3	1		1	2	2	1	1		13
Mar		1	1		1	2	3	3	5	3	Partie Partie	18
April		1	2	2	1	2	1	5	1	5	the little of	20
May		1	2	1		1	3	2	1	2	1	14
June			1	1		1	1	2		3	1 80 1	9
July		1	3	2	1	3	1	3	7	1		22
Aug.		1	3	1		1	5	10	4	1		26
Sept.		1	1	1 6 12	1	2	4	2	2	3		16
Oct.			3	1	1	1	5	4	4	1	des va	20
Nov.			3	1	2	2	3	1	3	2	2	19
Dec.		4	7		3	1	8	2	6	6		37
	1	12	31	10	13	18	44	41	34	30	3	236

TABLE XIIb.

Ward.	No. of Houses.	Estimated Population	Births	Birth Rate	Deaths	Death Rate	Deaths un- der I year	Infantile Mortality Rate per 1000 births
East	964	4893	156	32	42	8	12	77
St. Ann's	1268	6448	232	37	94	14	31	134
Clifton	1061	5378	126.	23	48	8	10	79
South	1260	6410	169	26	66	10	13	77
West	1034	5252	168	32	59	11	13	107
North	1547	7981	270	33	107	12	44	162
Thornhill	1624	8236	293	35	117	14	41	139
Masbro'	1617	8240	277	33	93	11	34	123
Kimberworth	1420	7223	219	28	87	12	30	137

These figures do not include deaths in public institutions which have occurred inside or outside the borough of Rotherham and are not worked out to fractions of decimals.

SECTION II.

INFECTIOUS DISEASES.

SMALLPOX.

Only one case of smallpox was notified during 1904, the patient being a woman who had come on a visit to Rotherham from Barnsley, where she had come in contact with the disease. She was at once removed to the old isolation hospital, and energetic measures were taken to prevent any spread of the disease. She made a satisfactory recovery, and no other case of the disease occurred.

An interesting point in connection with the case is that the woman was nursing her infant child when she sickened with the disease, but the child did not take smallpox, as it had previously been vaccinated.

The vaccination officers report that 1847 children were successfully vaccinated during the year, 1010 being in the north-west, and 837 in the south-east registration sub-districts. The proportion of children born who are protected against attack from smallpox is 96.4 per cent.—a very satisfactory number.

TABLE XIII.

Return of the Number of Cases of Infectious Disease notified to the Medical Officer of Health during the Year 1905, and the Number of Deaths from the Diseases reported.

		Pin I	Cases Notified.	Deaths Registered
Scarlet Fever	 		429	17
Diphtheria	 		38	4
T T	 		56	2
Puerperal Fever	 		2	1
Membranous Croup	 		5	4
Small Pox	 		1	0
Typhus Fever	 		0	0
Erysipelas	 		54	1
Continued Fever	 		2	0

TABLE XIV,

Number of Cases of Infectious Diseases reported in each Month of the year 1905.

		Scarlet	Diphtheria	Membranous Croup	Enteric Fever	Continued Fever	Puerperal Fever	Erysipelas	Small Pox	Relapsing Fever	
January	1091	20	3		1			9		e viol	33
February	quart	20	2		2	coline	bird	3	1	SW B	28
March		27	2	2	4		этих	7		eredy	42
April		7	2	1	4	1	1	3	bev	rimin	19
May		15	4	1	2	1	The	7		take	30
June	02500	23	3		1		HELE ,	2		rotor	29
July		33	2		3			2			40
August		40	1		8		TO ROO	2 2		1	52
eptember		38	1		15	19		6	111-73	11/10	60
October		47	5	1	7		MID II	4		10 13	64
NT 1	2	75	9		5		1	6	DIRE	100/87	96
December		84	4	art i	4		dio	3	-		95

SCARLET FEVER.

A considerable epidemic of scarlet fever occurred in the latter months of the year, being at its height in November and December. I was able in my report for 1904 to predict the coming of this epidemic, as no serious outbreak had occurred since 1900, and a large number of susceptible children had reached school age without having suffered from the disease. Such epidemics are liable to occur every four or five years, and such has been the experience in Rotherham. Unfortunately at the time the epidemic was showing a marked increase, the accommodation on the old temporary hospital was not sufficient to deal with it. The completion of the new hospital was hurried forward, and immediately it was opened it was filled with cases of scarlet fever. Since then the accommodation has been greatly strained to meet the demands made upon it. The type of scarlet fever in the epidemic has been more severe than has been met with for many years past. Several malignant cases have occurred where the patient was only ill for one or two days before the fatal result. There have also been an unusual number of cases complicated with suppurating ears and noses, inflammation of the lymphatic glands, and of the kidneys.

17 deaths occurred during the year, but considering the large number of cases notified, the rate of mortality is not high.

Most of the cases of the disease occurred in the Masboro' and Kimberworth districts. 429 cases were notified up to the end of the year, and of these 174 were treated in hospital.

21 TABLE XV.

	STA	ATISTICS	AS TO	SCARLE	T FEVER.	ACT DWOT 9/1
Year	Approximate Population	No. of Cases of Scarlet Fever Notified or Ascertained	Patients	Total Deaths registered from Scarlet Fever.	Mortality per cent.	Percentage removed to Hospital.
1885	35,650	289		40	13. 8	
1886	35,550	54	ulw sates	3	5.5	
1887	36,000	112	cocc at	2	1.8	
1888	36,182	128	dosi syir	12	10.6	
1889	36,307	187	ot milion to	23	12.2	
1890	37,907	206	is blids v	33	16.0	
1891	43,000	131 .	a spiral	10	7.6	
1892	44,000	111	isingalam	8	7.2	
1893	46,000	72		4	5.5	
1894	47,000	325	19701	25	7.6	
1895	48,000	178	um chass	12	6.7	
1896	50,000	259	Fevrer has	4	1.5	dones A
1897	51,000	212		19	8.9	
1898	52,000	219		13	5.9	
1899	53,000	258	2	14	5.4	0.7
1900	54,000	726	54	35	4.6	7.4
1901	56,000	267	61	5	1.8	22.8
1902	57,000	127	31	3	2.3	24.4
1903	58,000	246	17	9	3.6	6.9
1904	59,000	168	51	4	2.3	30.3
1905	60,000	429	174	17	3.9	40.5

A large number of posters were printed and exposed all over the town to the following effect:—

"Scarlet Fever is frequently spread through ignorance in recognising the disease, and carelessness in taking proper precautions to prevent contagion from spreading from the sick to the healthy.

Scarlet Fever commences with headache, sickness, sore throat, and feverishness. The rash appears first on the neck and chest: it may be very slight or may cover the whole body.

When a set of symptoms of this nature is discovered, a medical practitioner should be sent for at once; and in the meantime the patient must be kept in a room apart from other people. Arrangements will then be made for effective isolation, or for removal to the hospital.

There is a heavy penalty for failing to notify the existence of a case of Scarlet Fever.

It is not necessary that every child should take scarlet fever at some time in its life. A very large number escape, and the older a child is, the less chance has it of taking the disease.

Scarlet Fever is infectious throughout its whole duration. The contagion clings to the bedding, clothes, and furniture. These must be thoroughly disinfected at the termination of the case. Books and toys used by the patient must in all cases be burned.

In case of death from Scarlet Fever, it must be remembered that the body is infectious, and friends must not be admitted into the room in which it lies.

A serious outbreak of Scarlet Fever has been traced to a house where children were taken to see the body of a person who had died from the disease."

Handbills containing fuller instructions were given out at each of the schools to the children.

An instance of the way in which Scarlet Fever is spread by carelessness, was seen on the occurrence of the death of a child from a malignant form of Scarlet Fever. Numbers of the child's school-fellows were taken into the room where the body was lying, and several of them kissed its face. A more effective way of promoting the disease could scarcely be imagined.

MEASLES.

There is a remarkable contrast between the years 1904 and 1905 with respect to this disease. In the former year there was a very severe epidemic, and great numbers of children of school age were attacked, no fewer than 37 deaths being registered. The epidemic probably ceased from lack of fresh material—burned itself out, as it were—and the results are seen in the statistics of

the disease for 1905. Not a single death from measles occurred during the year, and only 41 cases of children absent from school from the disease were notified by the attendance officers.

This condition of affairs would be very gratifying, did we not take into consideration the fact that the town's immunity from measles has been attained by most of the children it contains having suffered from the disease in the preceding years. The control of measles is one of the difficult problems of public health.

MORTALITY FROM MEASLES.

1896	 	9	
1897	 	28	Epidemic.
1898	 	28	,,
1899	 	1	
1900	 	35	
1901	 	49	Epidemic
1902	 	36	
1903	 	24	
1904	 	37	Epidemic
1905	 	0	•

DIPHTHERIA.

38 cases of diphtheria were notified, and there were also 5 notifications of membranous croup. The two diseases are usually held to be identical. The number of cases is unusually small, but they were of a very severe type, and 4 deaths were registered as due to diphtheria, and 4 to croup. Antitoxin was distributed by the Medical Officer of Health to medical men whose patients could not afford to procure it.

Only 4 cases were treated in hospital, as there was no accommodation for dipthheria in the old building.

TYPHOID FEVER.

The number of notifications was 56. This is slightly more than 1904, when the number was 42, but is much below the average. The number of deaths was 2, the lowest number of deaths from this cause ever recorded in Rotherham. With the improvement in the water supply, and the general sanitary conditions of the town, typhoid fever has ceased to be the scourge that it once was. 20 years ago as many as 195 cases were notified, with 32 deaths.

OTHER INFECTIOUS DISEASES.

The returns received from the Board of Education of children absent from the non-notifiable infectious diseases show that whooping cough was most prevalent in January, chicken-pox in April and May, and mumps in October and November.

TABLE XVI.

park velimina		n h	Measles	Whooping Cough	Chicken Pox	Mumps.	Ringworn
January			1	34	3	3	11
February 1			2	10	6	6	9
March			6 -	4	11	11	9
April			3	Inchie	18	18	12
May			5	18	25	25	21
June			7	10	21	21	9
July			6	7	21	21	3
August							
September			3	1	19	19	4
October			1	1	32	32	5
November			5	7	28	28	6
December			3	9.	22	22	7
	200		41	101	181	206	96

Whooping Cough was the cause of 18 deaths, mostly amongst infants, a number much below the usual, for the disease is one which is very fatal to young children.

There was 1 death from chicken-pox.

TABLE XVII.

Cases of Infectious Disease removed into Hospital from the several Wards during 1905.

Ager > 70 - 60 m or a sinfa mort and	East	St. Ann's	Clifton	South	West	North	Thornhill	Masbro'	Kimberworth	Total
Smallpox Diphtheria Scarlet Fever Enteric Fever	 5	1 8	1 13	- 5	4	1 ₃ 33 1	1 36	1 32 1	38	1 4 174 2
one ling A of good	5	9	14	5	4	35	37	34	38	181

THE ISOLATION HOSPITAL.

The new Isolation Hospital was opened by the Mayor of Rotherham (Col. C. J. Stoddart, V.D., J.P.), on December 7th, 1905. On account of the increase in the epidemic of scarlet fever the completion of the building was hurried on, and on the day after the opening cases were transferred from the old hospital. The accommodation was soon strained to its utmost limits, and a number of special nurses had to be engaged. The work of engaging and organising the new staff and formulating rules, in addition to the medical administration of the institution, was at first one of considerable difficulty, but thanks to the help of the Committee, and in particular to Ald. Hickmott, J.P., the chairman, everything was soon put into smooth working order.

The following is a description of the hospital.

THE OLD TEMPORARY HOSPITAL.

Dr. Junius Hardwicke, for many years Medical Officer of Health for Rotherham, first called the attention of the Council to the necessity of providing a hospital for infectious diseases, and it was in the year 1887 that, in consequence of a severe visitation of smallpox, a wooden structure was erected, for the purpose of isolating cases of that disease. In the year 1892 a further temporary structure was erected. These buildings have been used for the isolation of Smallpox, Cholera, Scarlet Fever, Typhoid Fever, and Diphtheria, for each of which in turn they have done duty as emergency arose. Whilst not containing all the conveniences of a modern permanent hospital, and whilst at times inconvenience has been occasioned, they have served a most useful purpose, and for many years have saved a large capital expenditure.

The Council have, however, long had under consideration the question of erecting a permanent hospital for infectious disease, and from year to year I have earnestly urged the provision of such an institution. In consequence of increasing rates, the Council were unable, for a considerable period, to face the necessary expenditure, but in the year 1902 it was felt that the establishment of a permanent hospital could be no longer delayed.

THE NEW HOSPITAL.

Having decided to build a Hospital, the Council lost no time in obtaining the necessary borrowing powers for £21,000, and proceeded to acquire suitable land. An excellent site was obtained on high ground on the North-West side of Badsley Moor Lane, 1½ miles from the centre of the town, with a South-East aspect, where the conditions as to soil, facilities for drainage and water supply, were all that could be desired. 17½ acres were purchased at the price of £2072 5s., and of these 5¾ acres have been used for the buildings now erected.

The foundation stone of the present Hospital was laid by Alderman Edward Hickmott, J.P., Chairman of the Public Health Committee (who has taken a most active interest in the whole work), on July 28th, 1904, and the designs of the Architect, Mr. Joseph Platts, of Rotherham, the Corporation Architect, were reproduced in brick and stone by the contractors, Messrs. Wm. Thornton and Son. The Clerk of Works was Mr. A. T. Ripley.

The cost of the land, buildings, and furniture has amounted to £19,285.

The Hospital consists of the following buildings:—Administrative Block, Scarlet Fever, Typhoid Fever, and Diphtheria Pavilions, Observation Block, Porter's Lodge, and a block comprising laundry, mortuary, ambulance shed, engine and boiler rooms, disinfecting rooms, and discharge rooms.

The Administrative Block contains accommodation for the Medical and Nursing Staff and for servants. It has been built sufficiently large to allow of future expansion of the Hospital. On the ground floor are the Medical Officer's Office, Dispensary, Bacteriological Laboratory, sitting-room for the Matron, dining and recreation rooms for nurses, kitchen, scullery, store-rooms and pantries. On the first floor are fifteen bedrooms, (each fitted with lavatories with hot and cold water), bath room and linen closets. Separate staircases are provided for nurses and maids. The corridors and passages are heated by hot water coils, and the building is lit throughout by electricity from the Corporation Electrical Works.

Telephones connect this block with each of the wards as well as with the National Telephone Exchange.

The nurses' dining and recreation rooms are large, well lighted and cheerful apartments, the importance being recognised of making the conditions of life of those engaged in the trying duties of nursing infectious cases as agreeable and healthful as possible.

The bacteriological laboratory is an important part of the building. The importance of bacteriology in the diagnosis and treatment of infectious disease is being every year more widely recognised, and the equipment here provided will prove of great value in the work of the Hospital.

The Wards.—The different wards are arranged on the pavilion system, and each has a frontage to the South-East. There are four ward blocks, each with equal accommodation for males and females. Glass-covered verandas in front allow of the convalescent patients obtaining at the same time fresh air, sunshine, and shelter. Attached to each block is a kitchen, bath room, stores, and linen cupboards, slop sink and lavatory, all fitted with the latest sanitary appliances. The wards are heated with double coal fires with ascending flues; hot air chambers are found at the back of each

stove. Ventilation is by grids and shafts in the ceilings and extracts on the ridges. Hopper top openings are provided to each window, and the windows can be opened by sashes above and below. Fresh air inlets are to be found under each bed. The floors of the wards are of polished pitch pine, those of the other rooms are finished in cement and granite riddlings.

The inside walls are lined to a height of 4 feet with Keene's Cement. The junction with the floor forms a curve to avoid the lodgment of dust. Above the dado the lining is of Robinson's Cement. All the splays to the windows have rounded finishings, and the angles with the ceiling are curved. Apertures are provided in the walls at the end of the wards, through which soiled linen and coals can be passed, thus obviating the necessity for the porter to enter the wards.

The Scarlet Fever Block consists of two wards of eight beds each with a floor space of 156 superficial feet and 2106 cubic feet per bed. There are two small wards each containing one bed and having separate entrances. These are for the accommodation of special cases which it is desirable to keep apart from the others.

The Diphtheria Block has a similar arrangement to the Scarlet Fever Block, but the main wards only accommodate 6 beds in each. One of the small wards is fitted up for use as an operating room in cases where the operation of tracheotomy requires to be performed.

THE TYPHOID FEVER BLOCK is similar in dimensions, accommodation, and arrangement to the Diphtheria Block.

The Observation Block contains two wards of two beds each. It is for the purpose of isolating cases of whose nature there is any doubt, until the diagnosis is finally settled by the aid of bacteriology and clinical observation.

The Laundry Block comprises wash-house, fitted with washing machines, sparger, rinser and bluer, centrifugal drying machine, drying closet, and other up-to-date appliances. There is also a mangling room fitted with mangle, ironing machine, etc. All these are driven by steam power by means of an engine of 5 nominal horse-power, the steam being developed in the two Cornish boilers with which the boiler house is fitted. Part of this block contains the steam disinfector which is fixed in the wall between two rooms into one of which infected clothing is brought, and from the other the clothing is removed after passing through the disinfector. At one end of the block are the ambulance shed and stables, and at the other is the discharge block and the mortuary. The discharge block consists of three rooms, the central one containing a bath. The patients are received and undressed in Room No. 1, bathed and disinfected in the central room, and passed on to Room No. 3, where they don their disinfected outdoor clothes, and are free to depart. The Mortuary is so arranged that the friends of the deceased can view the body through a glass partition without fear of receiving infection.

PORTER'S LODGE.—This is erected near to the entrance to the Hospital, with all necessary conveniences.

Drainage.—The Drainage has been carefully arranged and carried out. The separate system with manholes and inspection chambers at the turn of the drains has been adopted, and each block is separately trapped and ventilated. The main outlet is connected with the Corporation sewer in Lord Street, and the sewage is finally dealt with at the New Sewage disposal works of the Corporation.

SECTION III.

BACTERIOLOGY AND WATER ANALYSIS.

BACTERIOLOGICAL WORK.

The work of this department increases year by year, and its usefulness continues to be more and more appreciated. During the year 288 examinations were made of different materials for the purpose of assisting diagnosis. By far the greater number of the specimens examined were swabs taken from the throats of patients suspected to be suffering from diphtheria. In many cases it is only by bacteriology that a diagnosis can be made between diphtheria and the many forms of throat affections which resemble it. The importance of early recognition of diphtheria is great, for the antitoxic serum which is now injected in nearly all cases of diphtheria has a much greater power over the disease at an early than at a late stage in its progress. 199 swabs were examined, and in 38 the characteristic bacillus of diphtheria was found. The large number of negative results obtained was due to the fact that many of the swabs were taken from the throats of patients with scarlet fever, in whom the sore throat was one of the earliest symptoms, and simulated diphtheria. There was no epidemic of diphtheria such as might have necessitated the examination of a large number of throats of school children. In very few cases was it possible to trace infection to a previous case.

Fifty-nine examinations were made of the sputum of patients suspected of being tuberculous, and in 26 cases the tubercle bacillus was discovered. Early diagnosis of consumption is greatly assisted by bacteriological examination of the sputum, and early diagnosis is necessary for the effectual treatment and cure of the disease.

The blood from 15 cases of supposed enteric fever was examined by means of the Widal agglutination test. In 7 cases the test was positive, and in 8 gave a negative result. The diagnosis of typhoid is often very difficult, and the Widal test has proved of the greatest assistance in deciding whether a case was typhoid or not.

Other specimens examined were milk for tubercle bacilli, sputum for pneumonia, pus for various organisms, and organs of sheep and pigs for anthrax and tubercle.

TABLE XVIII.

n or sideil a		downki		Positive.	Negative.	Total.
Diphtheria				38	161	199
Typhoid				7	8	15
Tubercle				26	33	59
Others				to m <u>al</u> is de		53
principal lines	(user	Eliza S	m in	Susc for di	y safe one	288

A considerable amount of bacteriological work is necessary in connection with the new infectious hospital. All cases of diphtheria are examined bacteriologically on admission, and before they are discharged several examinations are made of swabs taken from the throat and nose, in order to make certain that patients will not carry out any infection with them. Doubtful cases are placed in the observation wards until the diagnosis is made certain by bacteriological examination. All this entails a large amount of careful work, and to enable it to be carried out, a small laboratory has been fitted up in the hospital. This has been furnished with a warm incubator, an autoclave and other apparatus necessary for the work.

The preparation of sterilised swabs, and tubes for the collection of specimens of blood, which are sent to the medical practitioners of the town, is also conducted in this laboratory.

ROBERT G. RIDDELL,
M.D., F.R.C.S.E., D.P.H.,
Deputy M.O.H.

WATER SUPPLY

An important change has taken place in the water supply of the Borough. For many years there have been three chief sources of supply, namely, from Sheffield, Ulley, and Dalton. The water from the two latter districts is chiefly surface water, and much of the area from which it is collected is under cultivation. It has been constantly subject to pollution, and, as many of the analyses show, such pollution frequently occurred to an unpleasant extent. The water from these districts has therefore been a source of constant anxiety to the health department, for at any time such an epidemic of typhoid fever as occurred at Lincoln was liable to break out.

In August the water from these sources was cut off, and the supply from Langsett was introduced. This water is collected from uncultivated moor lands into a huge reservoir, and thence conveyed to Rotherham and Sheffield and Doncaster, which towns are partners in the ownership of this fine supply. The water is very soft, and is of a brownish colour on account of the peaty vegetable matter it contains. This, however, is harmless, and the water is a perfectly safe one to use for drinking purposes.

The Thorpe and Scholes districts of the Borough are supplied from the Pinch Mill Source.

Analyses are appended.

Report on a sample of Drinking Water, received from the Corporation of the County Borough of Rotherham, on February 17th, 1906. Sample Mark: "Town Supply, Rotherham."

[From tap in Moorgate A.R.]

Physical Characters :-

Suspended Matter: -Small amount.

Appearance of a column two feet long:—Pale yellow; brown; cloudy.

Taste :- Normal. Odour :- None.

On Analysis, the sample gave the following results :-

Total solid matter, 8.68; which lost on ignition, 2.24 grs.

Chlorine, 0.60; equal to sodium chloride, 1.00 grs.

Nitrogen in oxidised forms, trace.

Poisonous metals (lead, etc.), none.

Degree of hardness, 3.8. (Each degree of hardness represents a soap-destroying power equivalent to one grain of chalk per gallon).

Reducing power, 2.06. (Representing the oxygen absorbed by the organic and other oxidisable matters in one million parts of water).

Free and Ureal Ammonia, 0.05 parts per million.

Albuminoid Ammonia, 0.14 parts per million.

These results are fairly satisfactory. The high figure under the head of "Reducing Power" is probably owing to the presence of organic matter of peaty origin, to which the colour of the water is also due.

The water is soft, and would be materially improved by filtration.

G. E. SCOTT-SMITH.

February 24th, 1906.

Report on a sample of Drinking Water, received from the Corporation of the County Borough of Rotherham, on November 8th, 1905. Sample Mark: "Town Supply, No. 135."

[Taken from the Spring at Pinch Mill before Rain, A.R.]

Physical Characters :-

Suspended Matter :- Trace.

Appearance of a column two feet long:—Clear and colourless.

Taste :- Normal. Odour :- None.

On Analysis, the sample gave the following results :-

Total solid matter, 36.96; which lost on ignition, 9.52 grs.

Chlorine, 1.50; equal to sodium chloride, 2.46 grs.

Nitrogen in oxidised forms, 0.85; equal to Nitric Acid (anhydrous), 3.28 grs.

Poisonous metals (lead, &c.), none.

Degrees of hardness, 15.0. (Each degree of hardness represents a soap-destroying power equivalent to one grain of chalk per gallon.

Reducing power, Trace. (Representing the oxygen absorbed by the organic and other oxidisable matters in one million parts of water).

Free and Ureal Ammonia, 0.04 parts per million.

Albuminoid Ammonia, 0.08 parts per million.

These results are not satisfactory. The high figure recorded under the head of Nitrogen shows the water to have suffered contamination by drainage or similar impurity. The greater part of the polluting matter has subsequently undergone destruction by oxidation, but this process of spontaneous purification cannot be relied on to continue.

G. E. SCOTT-SMITH.

November 16th, 1905.

Report on a sample of Drinking Water, received from the Corporation of the County Borough of Rotherham, on November 15th, 1905. Sample Mark: "Town Supply, No. 136."

[Pinch Mill Supply. Sample taken on 15th November, 1905, at Whiston Hall Farm, after rain.]

Physical Characters :-

Suspended Matter:—Trace.

Appearance of a column two feet long:—Clear and colourless.

Taste:—Normal. Odour:—None.

On Analysis, the sample gave the following results :-

Total solid matter, 23.24; which lost on ignition, 3.92 grs.

Chlorine, 1.50; equal to sodium chloride, 2.46 grs.

Nitrogen in oxidised forms, 0.40; equal to Nitric Acid (anhydrous), 1.54 grs.

Poisonous metals (lead, etc.), none.

Degree of hardness, 16.4. (Each degree of hardness represents a soap-destroying power equivalent to one grain of chalk per gallon).

Reducing power, Trace. (Representing the oxygen absorbed by the organic and other oxidisable matters in one million parts of water.

Free and Ureal Ammonia, 0.01 parts per million.

Albuminoid Ammonia, 0.02 parts per million.

These results are not altogether satisfactory. The presence of Nitrates shows the water to have saffered contamination to a limited extent by drainage or similar impurity. The greater part of the polluting matter has subsequently undergone destruction by oxidation, but this process of spontaneous purification cannot be relied upon to continue.

G. E. SCOTT-SMITH.

November 23rd, 1905.

Report on a sample of Drinking Water, received from the Corporation of the County Borough of Rotherham, on November 15th, 1905. Sample Mark: "Town Supply, No. 137."

[Pinch Mill Supply. Sample taken on 15th November, 1905, at Spring after rain.]

Physical Characters :-

Suspended Matter: -Trace.

Appearance of a column two feet long :—Clear and colourless.

Taste :- Normal. Odour :- None.

On Analysis, the sample gave the following results :-

Total solid matter, 23.24; which lost on ignition, 2.80 grs.

Chlorine, 1.45; equal to Sodium chloride, 2.39 grs.

Nitrogen in oxydised forms, 0.40; equal to Nitric Acid (anhydrous), 1.54 grs.

Poisonous metals (lead, etc.), none.

Degrees of hardness, 15.6. (Each degree of hardness represents a soap-destroying power equivalent to one grain of chalk per gallon.)

Reducing power, 0.01. (Representing the oxygen absorbed by the organic and other oxidisable matters in one million parts of water.)

Free and Ureal Ammonia, 0.01 parts per million.

Albuminoid Ammonia, 0.02 parts per million.

These results are not altogether satisfactory. The presence of Nitrates shows the water to have suffered contamination to a limited extent by drainage or similar impurity. The greater part of the polluting matter has subsequently undergone destruction by oxidation, but this process of spontaneous purification cannot be relied upon to continue.

G. E. SCOTT-SMITH.

November 23rd, 1905.

Report on a sample of Drinking Water, received from the Corporation of the County Borough of Kotherham, on February 22nd, 1906. Sample Mark: "Town Supply (Thorpe Hesley)"

[Sample taken from tap, Church Schools, Thorpe Hesley, February 21st, 1906, 12 noon.]

Physical Characters :-

Suspended Matter :- Trace.

Appearance of a column two feet long:—Clear; slightly yellow.

Taste :- Normal. Odour : None.

On Analysis, the sample gave the following results :-

Total solid matter, 25.20; which lost on ignition, 7.28 grs.

Chlorine, 1.60; equal to sodium chloride, 2.62 grs.

Nitrogen in oxydised forms, 0.14; equal to Nitric Acid (anhydrous), 0.54 grs.

Poisonous metals (lead, &c.), none.

Degree of hardness, 16.4. (Each degree of hardness represents a soap-destroying power equivalent to one grain of halk per gallon).

Reducing power, 0.0. (Representing the oxygen absorbed by the organic and other oxidisable matters in one million parts of water).

Free and Ureal Ammonia, 0.05 parts per million.

Albuminoid Ammonia, 0.10 parts per million.

These results are not wholly satisfactory. The presence of a small proportion of nitrates shows the water to have suffered contamination from drainage of cultivated land or similar impurity to a limited extent. Unless the source of the polluting matter can be traced, and infiltration prevented for the future, the water should be regarded with suspicion.

G. E. SCOTT-SMITH.

February 28th, 1906.

SECTION IV.

SANITARY INSPECTOR'S REPORT.

CANAL BOATS.

The total number of boats inspected during the year was 53. The whole of the vessels were found to be in fairly good condition, no overcrowding or infection on board, and the regulations complied with.

The children found on board numbered 21, and the ages as follows:—

1	year	 	 	1
2	,,	 	 	1
3	"	 	 	4
4	,,	 	 	3
5	,,	 	 	1
6	,,	 	 	5
7	,,	 	 	2
9	,,	 	 	2
12		 	 	1
14	"	 	 	1

DISEASES OF ANIMALS ACTS AND ORDERS.

The regulation made by the local authority, and which came into force on the 1st day of August, 1902, have been carried out up to the 16th of December, 1905, when the Board of Agriculture, owing to an outbreak of Swine Fever, declared the Borough to be a Swine Fever infected area.

Licer	ices granted un	der n	novemer	it regu	lations	·
	From market					870
	From Lairs				100	554
	Into district u	pon (declarat	ions		1249
						2673
	Under Swine I Order,	ever impos	(Inspectsed by the	eted Ai ne Boar	eas)	167 (15 days)
				Tota	1	2840

167 copies have also been sent to the Board.

Infectious Diseases.

The total number of notifications of infectious cases received at the office has been 588, as follows:—

0 11		
Smallpox	 	 1
Scarlet Fever	 	 429
Diphtheria	 	 38
Membraneous Croup	 	 5
Typhoid	 	 56
Continued Fever	 	 2
Relapsing Fever	 	 1
Puerperal Fever	 	 2
Erysipelas	 	 54
		588

The premises on which any of the diseases occurred have been frequently visited by the staff—printed precautions served upon the occupants, disinfectants liberally supplied, and any sanitary defects a tended to; also 346 houses have been disinfected.

HOSPITAL.

The total number of patients removed into Hospital by the staff during the year numbered 181 as follows:—

Smallpox	 	 	1
Diphtheria	 	 	4
Scarlet Fever	 		174
Enteric	 	 	2
			110

181

CONVERSION OF PRIVIES INTO WATER-CLOSETS.

This work is proceeding slowly, but as the Corporation do not pay any proportion of the cost of such work, I think the conversions are proceeding as fast as may reasonably be expected, and considering the other duties the staff have to contend with.

Nuisances Abated.

Nuisa	inces A	valeu.				
House drains opened, relaid, to	rapped,	and ve	ntilat	ed		185
Water-closet drains opened and water services repaired			90			
New water-closets constructed	in plac	e of off	ensive	privies		91
Privies converted into water-c						114
Ashpits removed or re-constru	cted					77
Surface drainage repaired or p	aved			. And		20
		2.00				3
Houses overcrowded						6
Manure and offensive accumul		emove	d			11
Fowls, pigeons, and rabbits rea	noved					60
Pigs so kept						7
Filthy houses cleaned						2
Blocks of water-closets and pas	ssages c	leaned				2
Yards paved or asphalted						38
New urinals erected						1
Water laid on						4
Smoke nuisances abated						2
Additional w.c. for workshops						1
New privies erected						4
Cesspools cleansed				T. W.		295
						1010
						1013
Private slaughter-houses on R	egister					24
Milkshops						43
Cowsheds and dairies						39
WO	RKSH	OPS.				
The following is a list of	the wo	rkshop	s on t	he Regi	ster	:
Dressmakers					43	
Milliners					21	
Joiners					9	
Tailors					19	
Paper Bag Makers					1	
Memorial Masons					2	
my tot				ALMBINE.		
Hosiery Manufacturers				mangici.	2 4 2	
Saddlers				301111111111111111111111111111111111111	2	
Pattern Makers				americal	1	
3371 1 1 1					-	

4

7

Wheelwrights

Blacksmiths

Coach Builders			 		1
Herb Beer Manu	factur	ers	 		1
Bakehouses			 		6
Boot Repairers			 		19
Clog Makers			 		2
Cabinet Makers			 		1
Nailmaker			 		1
Drysalter			 	_	1
Underclothing M	akers		 		1
Carpet Weaver			 		1
Rope Maker			 		1
Mantle Maker			 		1
Mattress Maker			 		1
Chain Maker			 		1
Boiler Maker			 		1
Sugar Boiler			 		1
					155

The following table shows the number of privies and ashpits cleansed, the number of loads of soil and ashes taken therefrom, also the number of loads of refuse collected and the disposal of the same.

Number of privies emptied					20,854
Number of ashpits emptied					15,785
Number of loads removed f	from	ashpits	and		
privies				12,256	
Number of loads of refuse coll-	ected			8,654	
					20,910
I	DISPO	SAL.			
Number of loads burned at De	estruc	ctor		13,368	
Number of loads tipped				6,014	
Number of loads disposed of to	o farn	ners		1,528	
					20,910

The number of articles and carcases burned at the Destructor include :—

Mattresses		 	 	859
Beds		 	 	50
Pillows		 	 	204
Carcases of Beasts	;	 	 	26
Sh ep		 	 	29
Calves		 	 	161
Pigs		 	 	101
Dogs		 	 	701
Foals		 	 	1

TABLE XIX.

FOOD SEIZED OR SURRENDERED AND DESTROYED DURING THE YEAR.

Articles of Food.	No.	lbs.	Pro- ceedings	Penalties
Carcases of Beef	19	9794	made N	Strait.
Sheep	16	800	keed M. Jose	mitaliz A
Calves	22	1812	Town Mark	eried?
Pigs	15	1614	143626	miles a
Plucks	31		Toller	20000
Beasts' Hearts	22		1	and the same of th
,, Heads	22			
., Livers	25			
Boxes of Kidneys	7	Proude shows	et enwo	ok sill
Crabs	95	of loads	points o	il Jisama
Boxes of Finnons	1	May lo shi	al la mala	
Rabbits	24			June,
Pieces of Meat		110	un entre	Jorisdani
Chillie San Chille San Chillie San Chill San Chillie San Chillie San Chill San Chillie San Chill San Chillie San Chill San Chill San Chille San Chille San Chill San Chill San Chill San Chill San Chill San Chill	299	14,130	do el unie	lo redime

TABLE XX.

Summary of Samples of Food taken under the Food and Drugs' Acts during the year.

No. of Samples	Nature of Samples	Pure	Adulter- ated	Sum- monses issued	Con- victions	Penalties and Costs		
123 6 7 3 1	New Milk Old Milk Butter Lard Cheese	115 5 6 3 1	8 1 1	6 1 1	4 1 1	£5 0 0	s. 0 5 1	d. 0 0 0
140	Partie and the second	130	10	8	6	5	6	0

PARTICULARS AS TO THE ADULTERATED SAMPLES.

- No. 9.—Sample of Old Milk contained the parts as follows: Milk, Fat, 0.15 %; Non-fatty Solids, 8.52 %; Total Solids, 8.67 %. Penalty, 5s.
- No. 17.—New Milk contained only three-fourths of the minimum proportion of fat natural to genuine new milk. Penalty, 10s.
- No. 23.—New Milk contained the parts as follows: Milk, 95 parts; added water, 5 parts. Penalty, 40s.
 - No. 26.—New Milk contained on y thirteen-fifteenths of the minimum proportion of fat natural to new milk. Case dismissed on proof of warranty.
 - No. 48.—Butter. The sample consisted of Margarine. Penalty, 1s.
 - No. 56.—New Milk. The results of the analysis showed the Non-fatty Solids to be somewhat below the minimum requirements of the Board of Agriculture, but not to any material extent.
 - No. 62.—New Milk.—The results same as No. 56.
 - No. 85.—New Milk. Contained only nine-tenths of the minimum proportion of fat natural to genuine new milk. Case dismissed.
 - No. 98.—New Milk. Contained only eleven-twelfths of the minimum proportion of fat natural to genuine new milk. Penalty 30s.
 - No. 112.—New Milk. Contained only nine-tenths of the mini, mum proportion of fat natural to genuine new milk. Penalty-20s.

CHARLES E. PARKIN, Chief Sanitary Inspector.



TABLE XXI.—Cases of Infectious Diseases notified during 1905.

Cases Notified in Whole District.	38
District. Dist	34
District. Dist	37
District. Dist	35
District. Dist	14
District. Dist	5
District. Dist	14
District. Dist	6
Total Cases Notified in Whole District. Under I Years Victoria Under I Years Victoria Victor	5
Under I District. Under I District. Under I	111
Under I District. Under I District. Under I	108
Under I District. Under I District. Under I	118
Notified in Whole District. Vears	31 102
Notified in Whole District. Vears	31
Under I District. Under I District. Under I	31
Notified in Whole District. Vears	41
Under 1 Unde	23
Asses Notified in Whole District. Onder 1	23
Notified District Onder I S 138 6 2 3 17 5 10 15 15 15 15 15 15 15 15 15 15 15 15 15	00
Notified District Onder I S 138 6 2 3 17 5 10 15 15 15 15 15 15 15 15 15 15 15 15 15	8
Notified District Onder 1	57
I Tabril 12	279
Cases I rabin U ader I ic	5 163 279
Seg A Ils tA - 88 10 4 62 16 - 01 01	2
	588
	:
Crow er	Totals
a a ous sver Fev Fev Fev	:
Prancheri ra	otals
Notifiable Disease Small-pox Diphtheria Brysipelas Scarlet Fever Enteric Fever Continued Fever Puerperal Fever	T