Contributors

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ANNUAL REPORT

ON THE

HEALTH

OF THE

BOROUGH OF CHESTERFIELD.

FOR

1897,

BY

MEREDITH RICHARDS,

M.D (MEDICINE & STATE MEDICINE), B.S. (LOND.),

CHESTERFIELD:

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Borough of Chesterfield.

Sanitary Committee:

The Mayor,

MR. ALDERMAN PEARSON.

Chairman :

MR. ALDERMAN CLAYTON, J.P.

Vice-Chairman.

MR. ALDERMAN ROBINSON.

Members.

MR. ALDERMAN BOOTH, M.D., J.P. ,, WOODHEAD, J.P. MR. COUNCILLOR HADFIELD, ,, LOCKE, ,, PARSONS, ,, RHODES, ,, SPOONER, ,, WRIGLEY.

Medical Officer of Health.

MEREDITH RICHARDS,

M.D. (MEDICINE & STATE MEDICINE), B.S., (LOND.)

Sanitary Inspector.

CHAS. E. WOOD, Cert. San. Inst.

HEALTH DEPARTMENT,

SALTERGATE,

JANUARY 31ST, 1898.

Gentlemen,

I beg to present my second Annual Report on the Health of the Borough. The subjects which will especially deserve attention during this present year are:

- (1) The carrying into effect of the Isolation Hospital Scheme.
- (2) The Water Supply.
- (3) The Question of Refuse Disposal.
- (4) The Paving of Backyards.

I must again express my appreciation of the excellent work done by your Sanitary Inspector.

I am,

Your obedient servant,

MEREDITH RICHARDS.

1897.

Summary of Report.

BOROUGH OF CHESTERFIELD.

Area: 1219 acres. Situation, on coal measure clay, average of 800 feet above O.D.

Population (census) 1891, 22,009; enumerated 1897, 24,498.

Number of Houses : 1891, 4,171 ; 1897, 4,814

Rateable Value 1897, £84,536 9s.; Assessable Value, £78,666 18s. General District Rate: 3/11 in the £ for Old Borough; 3/2 for

Brampton ; 2/8 for Newbold ; 1/8 for Hasland.

Poor Rate (including School Board), 3/2 on Buildings, and 1/7 on Agricultural Land.

Vital Statistics, 1897.

Birth Rate per 1,000, 33.4.

Crude Death Rate per 1,000, 24.

Corrected Death Rate per 1,000, 21.5

Infantile Mortality (Deaths under 1 year per 1,000 Births), 220. Death Rate per 1,000 from the seven principal Zymotic Diseases, 4

Isolation Hospital : A temporary hospital reserved for Small-Pox. Water Supply :--

> Source of Public Supply: The Linacre Reservoirs. Any change in 1897? None.

Scavenging and Refuse Disposal : By Contractors at the Expense of this Authority.

Nuisances abated during 1897, 724

Report.

Population at the 1891 Census was 22,009. Assuming that the rate of increase remained the same as between 1881 and 1891, the estimated population at the middle of 1897 was 23,487. This was known to be too small, and advantage was taken of a Census undertaken by the School Board to obtain an enumeration of the Borough.

The numbers so obtained are as follows :---

					under 5	over 5	
North Wa	ard			 	1070	7985	9005
South ,,				 	1038	7087	8075
West "				 	1000	6134	7184
Workhou	se a	nd Ho	spital	 			279
						Total	24493

The number of inhabited houses at the end of 1896 was 4,689, 188 have since been built, and 13 closed or demolished, leaving 4,814 at the end of 1897.

The area of the Borough is 1,219 acres, with a density of 20.1 per acre.

Births registered during 1897 numbered 841 (34.3 per 1,000 of the population).

Of these 425 were boys and 416 were girls; 60, or 7.1 were illegitimate.

23 of the registered births, including 20 illegitimates, should be assigned to other parts of the Chesterfield Union.

The true birth rate is therefore 33.4 per 1,000 population, or 147.8 per 1,000 of the female population between 15 and 45 years of age. The true illegitimate rate is 4.9 per 100 births.

Deaths registered during the year numbered 587. This is equal to a crude death rate of 24 per 1,000, or after deducting 76 deaths of non-residents, occurring at public institutions, to 20.9 per 1,000. On making the usual correction for "age and sex distribution," we have a **corrected death rate of 21.5 per 1,000**, as compared with 1/7.44for England and Wales.

The Infantile Death Rate (deaths under 1 year), was equivalent to 220 per 1,000 births.

Inquests were held in 40 cases, or 6.8 per cent. of all cases. The number of deaths uncertified by coroner or medical men amounted to 26, or 4.4 per cent.

The 1	norta	lity of the different	Wards was as follows :
		Death Rate per	Infantile
		1,000 at all ages.	Death Rate.
North V	Nard	17.9	212
South	,,	23.4	247
West	,,	22.6	205

It will be noticed from Table II. that the death rate is higher than in 1896. This unfortunate result is ascribable to the extraordinary virulence of diarrhœal diseases during the past year. No fewer than 82 deaths are assigned to these causes, as compared with 34 in 1896. There were also 10 deaths from Enteric (Typhoid) Fever, as compared with none in 1896.

The incidence of diarrhoal diseases is mainly on young infants, hence the rise in the Infantile Mortality from 167 to 220 per 1,000 births. All these matters, however, are more fully discussed under their appropriate headings.

Table III. gives the registered cause of deaths for the whole Borough.

Zymotic Disease – Tables IVA. and IVB. show the number of cases of notifiable disease occurring in the Borough during the past and previous years, and the number of deaths from the principal zymotic diseases during the same period.

The so-called zymotic death rate (*i.e.*, the death rate from Small-Pox, Scarlet Fever, Measles, Whooping Cough, Diarrhœa, Diphtheria, and '' Fever'') amounted to 4 per 1,000.

These diseases were chiefly prevalent in the South and West Wards.

Ward.	Population.	Deaths from the	Zymotic
		principal zymotics.	Death Rate.
North	9005	21	2.8
South	8075	86	4.5
West	7184	41	5.7

Isolation Hospital--The necessity for a permament hospital for infectious diseases was never more obvious than in 1897. The subject repeatedly engaged the attention of the Health Committee, and after full consideration it was decided to endeavour to come to terms with the North-East Derbyshire Hospital Committee for the erection of a joint hospital. A draft scheme has been approved by the Council, and now awaits the concurrence of the adjoining authority. It is to be hoped that all preliminary details will shortly be arranged, so that building operations may be begun this summer.

Disinfection—The very large number of cases of infectious disease has necessitated a large amount of Disinfection. 1733 articles have been disinfected by steam, and 184 houses have been disinfected by the spraying apparatus, or by sulphur.

Schools—The arrangement made with the School Board for the notification by the Attendance Officers of all cases where children were suspected to be suffering from any form of infectious disease has proved extremely useful. Some 64 cases were notified to me in this way. Nearly all these cases were immediately visited and the children examined, unless they were already receiving medical attendance. In this way no less than 25 cases of Scarlet Fever were brought to light. Most of these had not been recognised, and were freely mixing with healthy children. Six of them were supposed "only to have measles."

It is to be regretted that hygiene does not find a place in the School curriculum. It is urged that there are already too many subjects on the syllabus, but the kind of pratical hygienic which would really prove useful might very well be taught through the medium of the reading lesson. It is equally important that the School buildings should be something approaching models of cleanliness and sanitary excellence, and it is to be hoped that all the buildings will shortly be levelled up to the satisfactory ^condition of the best Schools in the town.

Scarlet Fever was extremely prevalent. There were 267 cases but only 7 deaths ($2\cdot 6$ per cent \cdot) The wide prevalence of the disease was largely due to the mildness of the type. In many cases the sufferers were not suspected to have been subject to the disease until they were found to be peeling. Without a hospital for the isolation of first cases, it is impossible to take any radical measures to control the disease. Home isolation is impracticable in the poorer and more crowded parts of the town. For instance, a single case in one of the houses in a court of 14 houses in the South Ward resulted in the infection of 10 persons, and 6 houses in the same court.

Measies—Several alleged cases were reported to me by the School Attendance Officers, but only 2 cases (in one house) were really measles. 2 other cases (also in one house) were brought to my notice by the Assistant House Surgeon of the Hospital. All 4 cases owed their infection to Doncaster, where the disease was at that time prevalent. The parents were immediately cautioned not to allow the infected children to leave their own house, and it is satisfactory to find that in neither case did the disease spread to other children.

Diphtheria and Membranous Croup accounted for 10 notified cases and 4 deaths.

5 of these cases were examined bacteriologically, and diphtheria bacilli demonstrated in 8 cases.

20 other bacteriological examinations of suspicious throats were made, 2 of which turned out to be true diphtheria.

One set of cases is specially instructive. There had been two cases of true diphtheria among those attending the Infant Class of one of the Schools. I visited the School immediately, and examined all the children in the Class. The throats of three children were slightly abnormal, though the children were in their ordinary state of health. These were examined bacteriologically, and one was found to be true diphtheria. This child was isolated, and no further case occurred in the School. This confirms the experience gained last year that bacteriology of throats is mainly of service in preventive medicine when it is applied to the routine examination of those persons who have been associated at School or elsewhere, with notified cases of diphtheria.

Typhoid Fever—Chesterfield has shared in the increased prevalence of this disease which has been such a noteworthy feature in the sanitary history of 1897. There were in all, 59 cases with 10 deaths, 45 houses were attacked by the disease. Their distribution throughout the town was by no means equal. This is shown by the following table.

	Population.	No. of houses invaded.	No. of cases.	No. of deaths.
North Ward-	- 9005	10	11	0
South Ward-	8075	18	18	4
West Ward -	7184	22	85	7
			59	

Age an	d sex.	 0-5	5-15	15-25	25-85	85-	and a
Male		 1	12	11	2	65	=81
Female		 2	11	12	8		=28

1 case was imported from Beauchief, 1 was apparently infected at Cleethorpes, 1 at Selston, and 1 at Sheffield. Excluding these, there are

cases occurred :		airea in Chesterneia. These 55
	Primary cases.	Secondary cases in infected houses.
January-March	5	0
April-June	0	0
July	[2	0
August	9	8
September	6	2
October	14	8
November	8	2
December	2	4
	41	14

55 cases in which the disease was acquired in Chasterfield Thoma 55

Infection through water could be excluded except in two cases one in which the patient had partaken of a water from a suspicious well outside the Borough, one in St. Mary's Gate in which there was a suspicious well on the premises, which the patient probably used occasionally, though the house also had water laid on from the mains. There is no reason to suppose that the public water supply was in any case the vehicle of infection. The cases were too few, and there was a complete absence of any of the " bursts " which characterise water epidemics. Furthermore many large areas of the town were completely free from the diseases.

The influence of any particular milk supply could be similarly excluded.

In only two cases could shellfish be suspected viz., one in which the patient had taken some oysters while at Cleethorpes about the date of infection, and one in which mussels had been eaten prior to the outset.

In only 7 out of the 41 infected houses was there any defect of the drains, and in only one or at most two of these cases was the defect of a serious nature, or of such a kind as would be a possible cause of Typhoid Fever.

We must therefore seek some other source of infection. I am disposed to ascribe the incidence of the disease to two main factors :---

- (1) Pollution of the soil from privy middens.
- (2) Personal Infection.

That privy middens are powerful for harm has long been manifest. In 1874 Sir John Simon reported "of all the filth influences which prevail against human life in this country, privies of the accumulation sort operate undoubtedly to far the largest extent."

In 1897 Sir Richard Thorne Thorne wrote "much of the persistent prevalence, "—of enteric fever,—" is associated with those systems for the disposal of excreta and refuse which still find favour in certain parts of this country, and which inevitably involve organic pollution of the soil." The recent experiment of Dr. Sidney Martin, and of Dr. Robertson, of Sheffield, have shown that this is explained by the fact that the poison of typhoid fever can exist for long periods of time in organically polluted soil such as is found, for instance, in dirty yards containing privy middens. Once the poison of typhoid infects this polluted soil, it may flourish there for an unknown time, always ready to be called into activity by favourabl^e climatic conditions, such as prevailed in the Summer and Autumn of 1897.

Some such explanation probably accounts for the series of cases which occurred in the centre of Brampton. Here there are two dwelling houses, and a public house opening on to a common yard (A), in which there is a block of four privies, situated around a common midden. A case of typhoid developed in the first of these houses on August 18. This was followed on

August 31-By another case in the 3rd house in yard A.

- October 5—By a case of a child from the next street, who frequently played in yard A.
- October 8-By a relative and visitor of the occupant of the 3rd house in yard A.
- October 12- By a case in a youth who had made use of some building material removed from yard A.

October 15-By a case in the second house in yard A.

November 23-By another case in the original, (1st) house in yard A.

December 15-By a relative of the last mentioned patient who frequently visited yard A.

There were also 2 other cases in neighbouring houses, viz., one on October 5, and one on October 16.

Again a case (W. W.) occurred on October 15th at Old Hall Road, next door but one to a house which had been infected with Typhoid Fever in 1896. This was followed on October 31st by the infection of a child living next door to W. W., and using the backyard and midden common to the two houses.

The actual infection of the soil or privies cannot usually be definitely traced, but the history of the following case is significant.

On October 23rd, I was asked to see a patient of Dr. Shea's who had suddenly developed urgent general peritonitis symptoms, suggestive of his having recently had an attack of Enteric (Typhoid) Fever. On examination it seemed highly probable that this was actually the case The man died, and on postmortem examination it was discovered that he had been suffering from Typhoid in a mild form since about October 5th-Now this man had been working up to October 11th, and did not take to bed till October 22nd. During all that time he was giving off infection, and the fact that he had suffered from the disease would never have been known had he not happened to have succumbed to one of the accidents of the convalescent stage.

With regard to personal infection the following histories are significant.

About August 1st a case occurred at 1, Hall's Row. On August 18th this was followed by the infection of a married sister who nursed the patient, and also infected her own husband.

September 1.-2 more cases in 1, Hall's Row.

October 141	,,	,,	,,
October 171	,,	,,	,,
November 301	• • •	,,	,,

× general perstonitio

On November 2nd and 4th two cases were notified from Bank Street. These were followed on December 1st by three other cases in the same house.

In the Hall's Row series I have no doubt that the catastrophe was mainly due to **the** general slovenliness. Still from these and similar instances, it is perfectly evident that the generally received notion that typhoid fever is not for practical purposes as truly infectious as any other zymotic disease is absolutely without foundation, and the cause of much mischief through inducing a false sense of security among those brought into contact with the sick.

Diarrhcea, including the gastro-enteritis of infants resulted in 82 deaths, as compared with 34 deaths in 1896.

68 deaths were those of infants under 1 year of age, and were doubtless mainly due to the ingestion of infected or improper food, and more especially of infected milk. We are gradually accumulating a considerable number of observations bearing on this point, but they are not quite ready for publication. The following facts however are suggestive. Out of 37 deaths under 6 months from diarrheal diseases, 27 infants were not being suckled, 10 were being suckled, but 6 of these were also receiving some kind of artificial food.

Out of the 33 receiving more or less artificial food, 23 were only receiving diluted cow's milk, while 10 were also receiving some more or less unsuitable form of farinaceous food.

Very little Chesterfield milk is really satisfactory. It is seldom, if ever properly filtered and cooled, and is as often delivered when on the point of "turning." Even if sweet when it reaches the purchaser, it rapidly undergoes decomposition from original contamination at milking, an unduly high temperature during delivery, and the absence of a suitable place of storage in the poorer class of houses, and from the proximity of privy middens. The exc ssive diarrhœa mortality of last Summer is mainly ascribable to the high temperature which enabled the diarrhœa poison to multiply in polluted soil primarily, and secondly, to infect and multiply in the milk.

Infantile Mortality reached the alarming figure of 220 deaths per 1,000 births. This excess over last year is due to the high diarrhœa mortality. Though most of the latter is due in infected food, the danger from this source could be minimised if all possible precaution were taken in the preparation of the infants' meals. A similar remark applies to the majority of other infant maladies.

In what are known as the Healthy Districts of England and Wales, the infantile death rate is only 107 per 1,000, so that we have an excess of some 92 theoretically preventible deaths to account for. This 92 is equivalent to 3.8 per 1,000, so that if these deaths had been prevented, our death rate would have been lowered by that amount. Similarly there was excess of 42 deaths of children aged 1 to 5 over that which should obtain were the children living in Healthy Districts. If this were prevented, it would mean a further reduction of 1.7 in the general death rate.

No apology therefore is needed for insisting on the importance of sparing no effort to minimise this waste of life. Though much could be done by providing a pure milk supply, increased cleanliness of yards, and the abolition of privy nuisances, there is no doubt that the most important measure lies in the direction of education. Through private financial support, we have been able to secure the services of a lady whose business it is to call at all houses where children have been born, and give practical instruction in the care and feeding of infants, and in elementary domestic hygiene. This is supplemented by Lectures, and by help in nursing sick children under 8 years of age. This scheme has only been in operation some months, so that it is, as yet, too early to guage its success, but it is certainly hopeful to find that she is well received by all those on whom it is her business to call, and that there has been for the most part a very real desire to profit by the instruction imparted. It is also satisfactory to find that though ignorance and foolishness are rampant, there is little evidence of the wilful neglect which pessimists consider to be the main root of the evil.

Water Supply—I regret to have to record the prolonged scarcity of water which characterised the Autumn of 1897. For many weeks there was only a partial and inadequate supply, though every advantage was taken of local subsidiary sources to augment what could be obtained from the Linacre reservoirs.

Many private wells were also resorted to. As the quality of both the subsidiary supplies and of the private wells was not above suspicion, a notice was sent to every house in the Borough recommending the boiling of all water used for dietetic purposes. Fortunately we escaped any waterborne disease. It is to be hoped that the consulting Engineer to the Gas and Water Board will soon be prepared with a scheme which will relieve us from further anxiety.

The Linacre water was again analysed during the year with much the same results as those recorded a year ago. I must again express my opinion that this water should be filtered before distribution. Steps should be taken to minimise the risk from pollution from the main road, and to insure systematic inspection of the gathering ground.

Thirteen samples of water were submitted to the County Analyst during the year.

4 private wells, supplying 11 houses, were closed as dangerous to health.

Factory and Workshops Acts—No new workshops have been placed on the Sanitary Authority's Register.

One workshop was closed on account of the inadequate closet accommodation.

One sausage factory was rendered more sanitary by the removal of a stable which had previously been in under proximity. Housing of the Working Classes—The house to house visitation of the Borough has now been completed. During 1897, 884 houses were visited, 810 in the West Ward, 33 in the North, and 41 in the South.

Informal notices to repair were served in the

North Ward	12 houses
South ,,	18 ,,
West ,,	69 ,,

Notices to pave or asphalt yard surfaces were also served on the owners of

> 58 houses in the South Ward 29 ,, West ,,

The following statutory notices have also to be dealt with. Legal notices in abeyance from 1896, 13 ,, issued in 1897, 27-40 Complied with by closure 7 ,, repair 18 In abeyance, or at present being repaired, 20-40

Legal or informal notices have been served on all insanitary houses visited, except in a small proportion of cases where it was thought bes^t to allow them to stand over with the view of getting closing orders in the immediate future.

Eight houses have been closed during the year after informal notice and I have just received notice that five others will be closed next month.

Several of the courts and alleys in the West Ward (such as Beehive Row, Brickhouse Yard, Welshpool Yard, etc.,) are in urgent need of having their surfaces made good, but in consequence of their affording a thoroughfare to other property, it hardly seems possible to deal with them, except under the Private Street Works Act. During the current year, I propose paying special attention to yard surfaces, and issuing, where practicable, notices on all property which has been defining abeyance.

Sewerage and Sewage Disposal—A much needed sewer has been laid along the Hasland road to Whitehouses. The owners of the benefitting property contributed to the cost of this improvement. A short length of sewer in Victoria St. (West) has been re-laid.

Numerous observations and some scores of analyses of the sewage have been made during the year. This matter will shortly form the subject of a special report to the Sewage Disposal Works Committee.

Refuse Disposal—The collection and disposal of refuse is still done by Contractors at the expense of the Corporation. Under the new Contracts entered into in February, the Contractors undertook to do the work systematically. The town was divided into a number of district_s which should have been scavenged in rotation, so that it would have been unnecessary for Occupiers to give notice that their middens required to be emptied. This has not been altogether a success, as the Contractors have never seriously attempted to deal with the initial difficulty of getting the work level.

I am still convinced that the collection of refuse will never be efficiently carried out until it is done by our own men.

Whether done by Contract, or by our own men, there is no doubt that the collection and disposal of night soil will become more and more difficult and expensive every year. It is therefore once more necessary to consider the advisability of obtaining a provisional order enabling the Sanitary Authority to insist on water carriage being being adopted in all new houses. The extra amount of water required for this purpose would not be large, and, unless thought desirable, it would not be necessary to make the order effective until we are in measurable distance of an increased water supply. There can be no question that the present system of middens is as wrong in principle as it is nasty in practice. Food Inspection—12 samples of milk were analysed during the year, 7 were genuine, and 5 of poor quality. 2 samples of butter were examined, both were genuine. An arrangement has been made with the Borough Analyst to analyse a minimum of 25 samples per annum for a fixed salary.

Two seizures of meat were made during the year. The owner of the first lot was prosecuted, and a fine of $\pounds7$ costs imposed. Owing to a technical difficulty as to ownership, we were unable to prosecute the other offender.

One case of fish was also condemned.

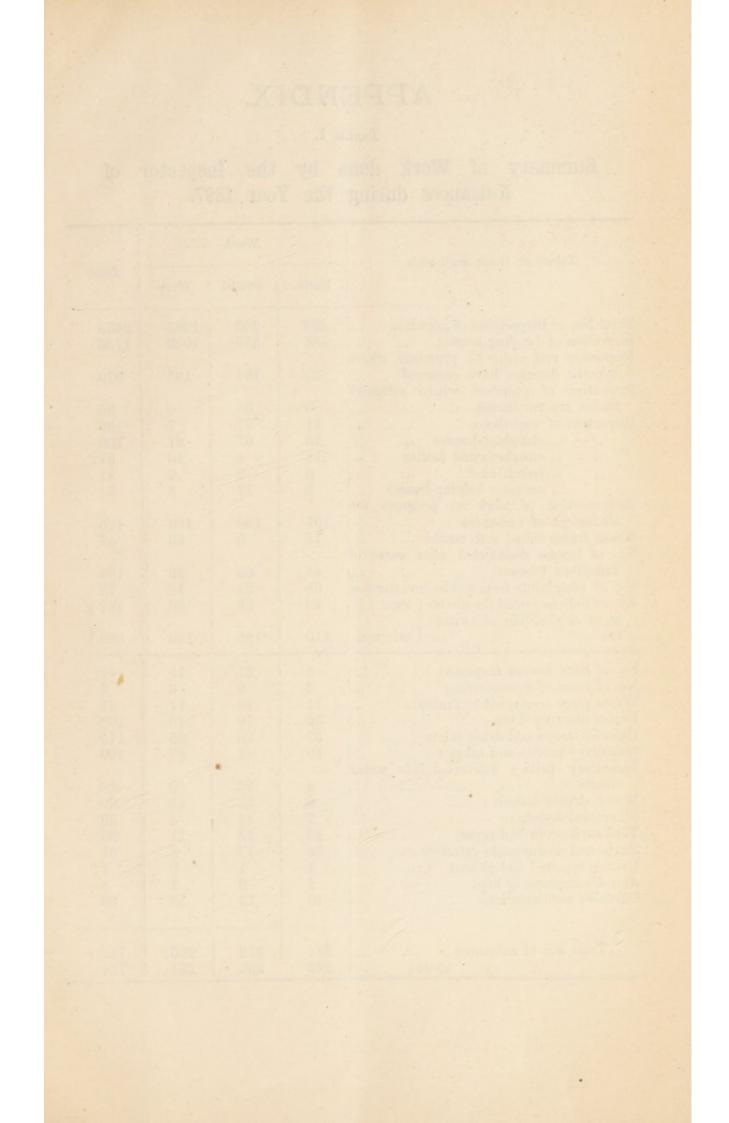
The public slaughter-houses have been renovated during the year.

Common Lodging Houses have been inspected during the year.

Four keepers have been convicted for breach of the bye-laws.

A conviction was also obtained in one instance for keeping a lodging house without the same being registered.

Dairies and Cowsheds—Two registered cowkeepers have been prosecuted for keeping cows in sheds which did not meet the requirements of our bye-laws. The Sanitary Authority was successful in both instances.



APPENDIX.

TABLE I.

Summary of Work done by the Inspector of Nuisances during the Year 1897.

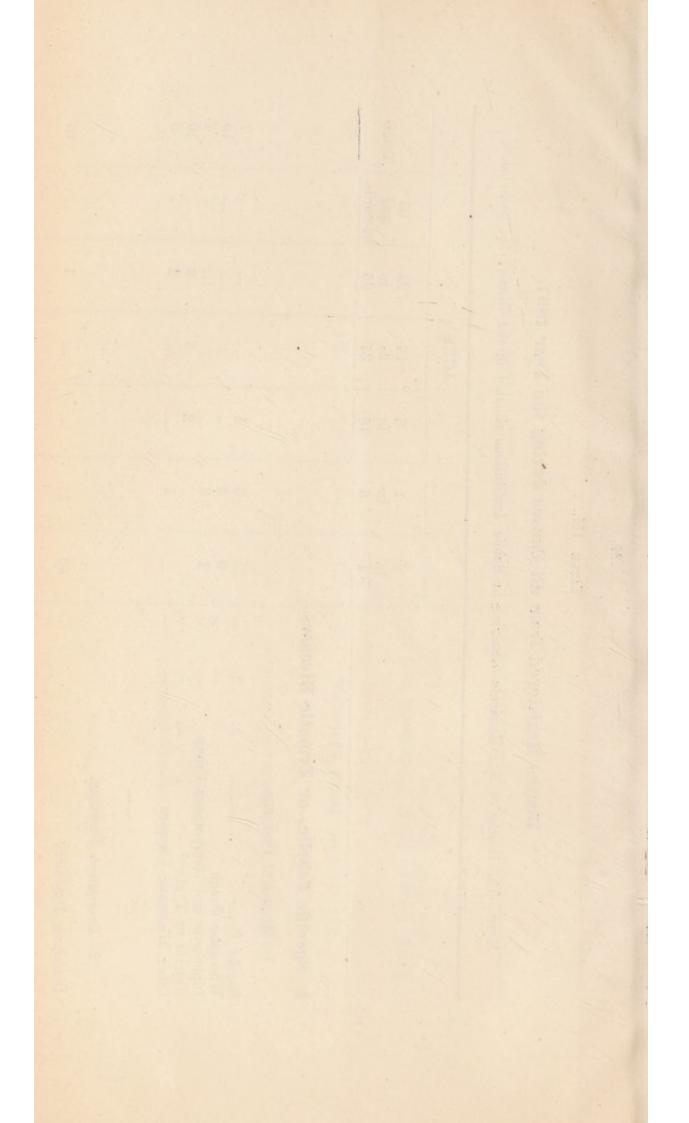
Nature of Cases dealt with.		Ward.		
Nature of Cases dealt with.	North.	South.	West.	Total.
Total No. of Inspections of premises	423	650	1285	2858
Inspection of dwelling-houses	285	855	1096	1786
Inspection and visits to premises where zymotic diseases have occurred	98	151	185	879
Inspection of premises where offensive				
trades are conducted	0 11	85 21	07	85
Inspection of workshops	15	61	27	89 103
., ., cowsheds and dairies	14	4	18	81
,, ,, bakehouses	8	6	2	11
,, ,, common lodging-houses	2	17	5	24
Re-inspection of work in progress for abatement of nuisances	107	186	168	100
abatement of nuisances House drains tested with smoke	15	9	28	406 47
No. of houses disinfected after cases of			20	
Infectious Disease	45	88	56	184
No. of complaints from public investigated	85	27	16	78
No. of notices issued for abate- (legal	28	83	26	187)
ces informal	110	126	103	8895
No. of dirty houses Inspected	5	21	15	41
No. of cases of overcrowding	2	2	8	7
Waste pipes connected to drains	11	19	11	41
Drains obstructed etc	59	78	46	183
Defective traps and drain inlets	87	88	85	110
Insanitary privies and ashpits Insanitary privies converted into water	89	44	87	120
closets	4	12	2	18
Water closets defective "	9	88	18	60
Structural defects	7	18	4	29
Yard surfaces in bad repair	15	12	11	88
Eaves and downspouts defective	26	17	· 8 2	51
Urinals repaired and altered Animals improperly kept	$\frac{1}{2}$	$\frac{1}{2}$	1	4 5
Offensive accumulations	10	15	13	88
Total No. of nuisances	227	812	206	745
,, ,, ,, abated	222	298	204	724

TARK III.

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Deaths Registered from all Causes during the Year 1897. Norr-The Daths of Non-Residuet occuring in Public Laditations situated in the District are ordered.

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66 and upwards.	11:1:	ł		I - i	i	1		1:13	10	13	ci oi	1			1	8	1 28



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TABLE		
TRDDE		

Year.	England and Wales.	Derbyshire.	Urban Districts, Derbyshire.	Old Borough.	* Extended Borough.
1888	17 7	17:4		19.2	
1889	17.8	17.5		19.6	
1890	19 5	18-2		24.02	
1891	20.2	18.2	19.7	24.6	
1892	19.01	19.1	19.5	24.5	
1893	19.2	17.5	18.9	20.0	21.4
1894	16.6	15.4	16.4	15.0	15.6
1895	18.7	17.1	17.8		18.2
1896	17.1	16.6	16.86		20.0
1897					20.9

* Corrected for institutions only.

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Total, 1897	Erysipelas	Puerperal Fever	Enteric Fever	Diphtheria and Membranous Croup	Scarlet Fever	Small-Pox		DISEASE.
. 81		:	. 10		. 24	:		Jan
10	00	:	1	:	6	:		. Feb
28	10	:	00	8	15	:		. Mar
21	1	:	:	1	19	:		. Apr.
8	1	:	:	:	7	:		May
20	10	1	:	:	17	:	1	June
18	-	1	:	:	17	:		July
87	:	:	7	:	30			Aug.
59	7	:	14	÷	88	:		Sep.
46	10	:	18	:	26	:		Oct.
89	:	:	6	63	81	:		Nov.
58	4	1	00	00	87	:		Dec.
865	27	15	59	10	267	:		Jan. Feb. Mar. Apr. May June July Aug. Sep. Oct. Nov. Dec. Total 1897.

TABLE	IV.	(B.)	

24

-	18	97.	189	96.	18	1895. 1894.				93.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
Small-Pox	 0	0.	0	0	0	0	10		96	6	Comparable
Scarlet Fever	 267	7	103	3	46	2	75	1	191	5	No
Diphtheria and M'mbranous croup	 10	4	14	5	8	4	9	4	10	2	ble figures Notifiable 1
Erysipelas	 27	1	18	0	12	0	24	2	33	1	1 16
Puerperal Fever	 2	3	1	1	2	1	0	0	5	2	Diseases
Typhoid (Enteric)	 59	10	9	0	28	4	9	1	29	5	obtainabl
Diarrhœa	 	67		18		44		8		44	nabl
Gastro-Enteritis	 	15		16		?		?		?	before
Measles	 	0		35		10		1		3	
Whooping Cough	 	10		6		0		13		4	1893.

TABLE V.

Articles Disinfected by the Steam Disinfector.

Mattresses				268
Beds			 	165
Bolsters or	pillows		 	402
Bolsters or	pillow-cases		 	147
Sheets			 	180
Blankets			 	188
Counterpane			 	147
Curtains or		s	 	89
Carpets or			 	47
Articles of a	male clothin	g	 	48
Articles of f		ng	 	72
Miscellaneou	s		 	80
	and the second second			
	Total		 	1788

Supplied by the courtesy of Mr. J. Simpson, Gas and Water Board.

		_	-		-		_			_			_		
Entire year	December	November	October	0	3 8	July	June	May		March	February	January		1	
e yea								•		•				MONTHS	
Fi .	:	:	:	:		:	:	:	:	:	;	:	1000	HS.	
										•					-
:		:		:		:	:	:	:	:	;	:			
88	58	,57	66	70	88	82	85	99	67	63	57	52		Highest.	Temp
18	20	27	26	29	40	88	85	29	24	28	22	18	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Lowest.	erature of Ai
56.01	45.8	50-1	57.5	62.5	78	72.1	68.1	60.2	51.8	51.2	46.4	8.88		All highest.	Temperature of Air during the Month.
40.3	8.83	8.88	89	48.2	49.7	49.1	49.4	40.4	86.4	78	85.9	29.8		All lowest.	fonth.
48.8	89.5	44.4	48.2	52.8	61.8	9.09	58.7	50.8	44.1	44.2	41.1	84	11.1	Temperature of air	Mean
163	17	18	10	10	15	6	11	18	15	17	12	19	1 4 4	days of which rain fell.	Rainfal
25.95	8.46	2.60	1.08	1.87	1.79	.56	2.98	1.86	1.55	2.95	8.29	2.46		collected in inches.	fall.

TABLE VI. METEOROLOGICAL RECORD. Rain Gauge 5 inches in Diameter, 1 foot above ground, 279 feet above sea level. Temperature taken in the shade and 4 feet from the ground.

To the Mayor and Corporation of the Borough of Chesterfield.

As Inspector under the Canal Boats Act I present my annual report for the year ending 31st December, 1897.

I have periodically visited the portion of the Canal in the Borough, but only on one occasion have I had the opportunity of inspecting a boat which came for the purpose of registration. This I understand was the only boat which entered Chesterfield during the year.

There are now 25 boats on the register.

CHARLES E. WOOD,

Canal Boats Inspector.

