

Contributors

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BARNSLEY RURAL
SANITARY DISTRICT.

REPORT
OF THE
MEDICAL OFFICER OF HEALTH

(M. T. SADLER, Esq., M.D.),

FOR THE
Year ending December 31st, 1899.

BARNSLEY :
WALTER NEALE AND CO., PEEL SQUARE PRINTING WORKS.

—
1900.



GENTLEMEN,

THE weather in the year ending December 31st, 1899, though rather milder in the first three months and warmer in summer than the average of the preceding 30 years, and with a little less than the usual amount of rain, was, as compared with 1898, somewhat hotter in the summer months, except in September, and with decidedly more rain, but there was no such difference as to have any important sanitary effect, so far as the Barnsley Rural Sanitary District is concerned.

The total number of deaths registered during the year in the District was 118, or 8 more than in 1898. To these have to be added 5 others in hospitals and other public institutions amongst people belonging to the district, making 123 in all. During this same period 282 Births were registered. It is probable that, except in Cudworth, there has been little or no increase in the population since 1898, and that accepting the estimate arrived at in consequence of a recent enumeration, which gave 3044 as the number of inhabitants in that township, the population of the entire district in the middle of the year was about 6,840.

Taking that number as a basis, the Birth-rate for the year was 41.22 per thousand persons living, which is so much higher than the average for the West-Riding during the last few years as to make it certain that the population has not been over-estimated. The death-rate on the same basis was 17.98 per thousand, which is a little lower than that of the preceding year.

As there were 41 deaths among infants under 12 months of age, the infant death-rate was at the rate of 145·39 for every thousand births, a rather smaller proportion than that of 1898, and also less than that of even the Rural Districts in the West Riding during that year.

II.—The deaths from the principal zymotic diseases were 18 in number, and at the rate of 2·63 per thousand persons living, or decidedly higher than last year, mainly owing to an outbreak of measles at Cudworth in November and December. Of these deaths, 6 were from Measles, all in Cudworth; 10 from Diarrhœa, of which 8 were in Cudworth, and 2 in Carlton; and 2 from Typhoid Fever in Woolley and Notton. There were none from Small-pox, Diphtheria or Whooping Cough.

During the year 37 notifications of cases of Infectious Disease, coming under the Notification Act, were received. Each case was promptly visited, and full particulars obtained about the sanitary conditions under which it occurred, the probable source from which the infection had been derived, and the amount of risk there was of the disease being conveyed to other persons. Steps were taken for the removal of any sanitary defect that was discovered, the schools attended by the children in the house were warned if there was any danger of their conveying the disease to their school fellows, and in the case of Scarlet Fever or Typhoid Fever, where there were no sufficient facilities for the isolation of the patient, removal to the Kendray Hospital was advised and urged. When the patient had been removed to the Hospital, or had otherwise ceased to be a source of infection, the house was disinfected by means of a portable spraying machine, a solution of Formaline or of Perchloride of Mercury being used for the purpose, instead of the uncertain and otherwise objectionable sulphur fumes formerly used.

Scarlet Fever was reported in every month throughout the year. There were 29 cases in all, of which 19 were in Cudworth, 4 in Carlton, 3 in Billingley, 2 in Woolley, and 1 in Stainbro'. Fortunately we were able to secure the removal to the Kendray Hospital of 20, or nearly 70 per cent. of the cases (68·96), and it is probable that to this isolation of the great majority of the cases we owe it, that, notwithstanding the frequent fresh importation of the disease from other sanitary districts, it never became a serious epidemic, and

that there was not a single death from the complaint during the year, though some of those treated in the Hospital were severe cases, which, at their own homes, might easily have been fatal.

Of Enteric or Typhoid Fever 4 cases were notified during the year, and all were removed to the Hospital except one, who died before the notification was received. Of these cases 1 was at Cudworth, 2 at Woolley Colliery, and 1 at Notton.

This last case requires special mention, because it illustrates the fact that at any rate in cottage houses Typhoid Fever is much more liable to be conveyed by personal infection than is generally understood to be the case.

On October 16th a notification was received of a case of Typhoid Fever in a young man at Notton.

He was removed to the Kendray Hospital the same day, having been ill about a fortnight.

It proved to be a very severe case, and he died of bleeding from the bowels a few days later.

There having been two deaths in the house from what was called Influenza within three weeks before the notification of this case, an investigation was made, and it proved that some time in September two children were brought to the house from another Sanitary District, where Typhoid Fever had been so prevalent that over 20 cases had been notified in August and September alone in a population of about 5,000.

These children were sent away from home because their mother was ill with Typhoid Fever, and were themselves ailing when they arrived at Notton. Towards the end of September a lad of 17 fell ill in this house of what was thought to be Influenza, a disease easily confounded with Typhoid Fever in its early stages, and, after a short illness, died on Sept. the 28th. Early in October a second son fell ill with what was still considered to be Influenza, and died on the 12th. By this time a third was seriously ailing also, and on the 15th his case was recognised to be one of Typhoid Fever, notified as such, and at once removed. With such a history it is fairly certain that all the cases were of the same disease, and that if the first two children had been removed to an Isolation Hospital instead of being sent into another and uninfected district, these three lives would have been spared.

The three cases of Diphtheria were all at Rat Row, Stainbro', two being in the same house, which was rather damp. The youngest was 15 years of age, none of them were very severe, and though there were young children in both houses, none of them seem to have taken the disease, which, in its really serious form is most prevalent amongst young children.

There was only one case of Erysipelas, and that was one of no importance, from a sanitary point of view.

Of the other diseases coming under the Notification Act no reports were received, a death at Billingley from Peritonitis following confinement, which occurred on January 1st, not having been notified as Puerperal Fever.

Of diseases not under the Notification Act, Measles was the only one which was seriously prevalent during the year.

On November 15th it was found that out of 360 scholars on the rolls at the Cudworth Schools 50 were absent on account of Measles, and that 30 houses out of 567 were infected.

I therefore advised that an order should be made by the Authority closing the School to December 18th, which was done.

Again on December 4th I found that at Woolley Colliery School 42 children out of 115 on the register were absent on account of Measles, and advised that the School there should be closed until January 8th, 1900, which was duly carried out, and by the beginning of January, so far as could be ascertained, the outbreak had ceased.

During August and September, when the temperature of the subsoil was high, there was a considerable prevalence of Diarrhœa, causing 10 deaths in the townships of Cudworth and Carlton, almost all of them being amongst young children, but no other infectious disorder beyond those already mentioned was seriously prevalent during the year in any part of the District.

III.—The usual systematic inspections of the various Townships have been made during the year, and the results reported at your monthly meetings. In January, I had to report the want of systematic scavenging at Carlton, and in February a contractor to do that work was appointed. In February the want of an outlet to an important sewer at

Cudworth was reported, and 40 yards of additional main sewerage provided. In March the want of topwater drainage to improve street surfaces in Crooke's Lane, Carlton, was brought under your notice, and a remedy provided. Deficiencies in sewage disposal in Farfield Lane, Cudworth, and in the water supply of some parts of Notton, were also reported at the same time.

In April I reported that certain improvements had been made in the ventilation of the sewers and the paving of some of the back-yards in Cudworth, and on the results of the analysis of certain samples of milk.

In May, on the nuisance arising from certain cesspools in Upper Cudworth, and on the unsatisfactory sanitary condition of Railway Terrace, Carlton.

In June, on the delay in supplying certain houses at Billingley with water, notwithstanding the notices served in February.

In July, again on cesspool nuisances in Cudworth, and on the unhealthy dampness of houses at Malt Kiln Row, Woolley Edge, to view which a committee was appointed.

In August, on nuisances from the Carlton Sewage Farm, and again from Cudworth cesspools, to abate which 120 yards of fresh sewerage were provided in September.

In September, on the deficient water supply at the Midland Company's Royston Station, in the township at Notton, and on the pollution of a water-course at Billingley by sewage from another Sanitary District.

In November, on the outbreak of imported Typhoid Fever at Notton, previously mentioned; and in December, on the outbreaks of Measles at Cudworth and Woolley Colliery.

As the result of the observations made during the various inspections of the district, besides many verbal warnings, 34 formal notices were served for the abatement of nuisances injurious to health, and also 34 others for the provision of a proper supply of water.

There were 3 notices in hand at the end of 1898, 35 were complied with during the year, and one was in hand at the end of the year.

In only one legal proceedings were needed, and that was for neglect to empty an offensive cesspool.

During the year 37 sink waste pipes were disconnected, and 62 trapped; there were 52 new closets constructed during the year, and 43 were reconstructed, of which 26 were provided with zinc pans for more thorough and convenient scavenging.

Five samples of milk were sent to the County Analyst; all were pronounced genuine, and one was of superior quality.

In four cases fish and tripe have been seized, and destroyed by consent of the vendors, as not fit for food, but in none of these cases was it thought advisable to institute a prosecution. There are 37 Cowsheds containing 191 Cows registered in the district, and inspected during the year.

Also 175 Canal Boats and 10 Slaughter-houses.

During the year 737 yards of new pipe sewers have been laid down, of which 514 were in Cudworth, 183 in Woolley, and 40 in Billingley.

Out of 34 notices for the better supply of water to houses in Billingley, 20 had been complied with at the end of the year, and 3 additional houses have been supplied in Stainbrough.

IV.—In general Sanitary condition this District has made some progress during the year, but difficulties with regard to Sewage disposal still continue to stand in the way of other improvements.

The Scheme prepared for Cudworth having been rejected by the Local Government Board, and the County Council having granted to that township the position of a separate Sanitary Authority, no further progress has been possible in the year.

At Carlton, where a Scheme has been sanctioned, unexpected difficulties arose in getting possession of the land required, which have caused delay until the needful Legal Notices had been given, but during the present year the work will no doubt be proceeded with.

In the townships of Billingley, Notton, and Stainbro', the need for Sewage disposal is less obvious. At Woolley Colliery, at any rate, something is still needed.

The Water Supply of Cudworth and Stainbro' derived from the Ingbirchworth Reservoir of the Barnsley Corporation is satisfactory in quality, and, as a rule, adequate in quantity.

Billingley is or shortly will be, fairly well supplied, though with rather hard water by the Dearne Valley Water Company.

At Carlton, where complaints have been made frequently during the year of the quality of the water supplied from Lord Wharncliffe's Reservoir, there is hope that arrangements will shortly be made for a better supply, possibly from the Waterworks of the Barnsley Corporation.

At Notton the report made by the County Analyst on samples lately sent him, show that there is need for improvement, whilst at Brick Row on Woolley Edge, there has been practically no change since the appeal made to the Local Government Board against the notices given by this Authority.

In the Scavenging of the district there has been an improvement since the appointment of a Scavenging contractor for Carlton, as well as for Cudworth. The other townships are more agricultural in their population, and as a rule the scavenging is sufficiently well carried out by the owners of property and the neighbouring farmers.

There are still some houses hardly fit for habitation on account of the dampness in various parts of the district, and four have been closed during the year.

So far as infectious disease is concerned the condition of the district is satisfactory, at the end of the year not a single notification having been received between the 13th of December and the 7th of January of the present year.

I am, Gentlemen,

Yours obediently,


MICHAEL THOS. SADLER,

(*M.D., Lond.*),

MEDICAL OFFICER OF HEALTH.

BARNSELY,

JAN. 31ST, 1900.



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Area of District, 11,276 Acres.

Population

A

TABLE OF DEATHS during the year 1891
classified according to age.

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	Mortality from all causes at subjoined ages.					
	At all Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.
CUDWORTH	60	28	12	2	3	10
CARLTON	23	7	2	..	2	9
NOTTON	3	...	...	...	2	1
WOOLLEY	14	4	3	...	1	4
STAINBROUGH	9	2	...	..	...	3
BILLINGLEY	4	...	...	...	...	1
TOTALS	118	41	17	2	8	28

The subjoined numbers have also to be taken into account.

Deaths occurring outside the district among persons belonging thereto.	5	...	...	...	2	2
Deaths occurring within the district among persons not belonging thereto.	...	...	...	...	...	...

Death-rates { General
 { Infant

ensus 4,883, estimated to middle of 1899, 6840.

in the BARNSELY RURAL SANITARY DISTRICT,
 ses, Ages, and Localities.

mortality from subjoined causes, distinguishing Deaths of Children
 under Five Years of Age.

	Enteric or Typhoid	Puerperal.	Measles.	Diarrhoea and Dysentery.	Rheumatic Fever.	Phthisis.	Bronchitis. Pneumonia, and Pleurisy.	Heart Disease.	Injuries.	All other Diseases.	TOTAL.
ds	6	8	..	3	4	...	...	19	40
ds	1	9	3	1	6	20
ds	1	..	...	...	...	...	8	9
ds	1	..	...	...	3	2	13	19
ds
ds	1	...	...	...	...	2	3
ds	1	1	5	7
ds ...	1	...	...	...	...	...	...	2	...	4	7
ds	1	...	..	1	2
ds	2	...	..	5	7
ds
ds	1	...	...	...	...	...	1	...	2	4
ds	6	9	...	3	5	1	1	33	58
ds ...	1	1	...	1	1	1	11	9	3	32	60

at in judging of the above records of mortality.

ds ...	..	...	...	...	...	...	...	...	...	...	...
ds ...	1	...	...	...	...	...	1	...	3	...	5
ds ...	...	...	...	...	...	...	...	...	...	...	...
ds ...	...	...	...	...	...	...	...	...	...	...	...

0 estimated Population.
 Births Registered.



B TABLE OF POPULATION, **B**
SICKNESS, coming to the
the Year 1899, in the BARNSLAY
to Diseases, Ages, and Localities

Names of Localities adopted for the pur- pose of the Statistics ; Public Institutions being shown as separ- ate localities.	Population at all Ages.		Registered Births.
	Census, 1891.	Estimated to middle of 1899.	
CUDWORTH ...	1607	3040	261
CARLTON ...	1401	1920	
NOTTON ...	269	270	
WOOLLEY ...	969	950	
STAINBRO'	442	460	15
BILLINGLEY ...	195	200	6
TOTALS ...	4883	6840	282

Notification of Infectious Diseases com
Isolation Hospital, the Kendray Hospi

and of NEW CASES OF INFECTIOUS
of the Medical Officer of Health, during
SANITARY DISTRICT; classified according

	New Cases of Sickness in each Locality, coming to the knowledge of the Medical Officer of Health				Number of such Cases removed from their Homes in the several Localities for Treatment in Isolation Hospital.	
	Scarlatina.	Diphtheria.	Enteric or Typhoid Fever.	Erysipelas.	Scarlatina.	Enteric or Typhoid Fever.
...	7	...	...	...	3	...
...	12	...	1	1	10	1
...	2	...	...	...	1	...
...	2	...	...	...	2	...
...
...	...	...	1	...	...	1
...
...	2	...	2	...	1	1
...	1	...	...	...	...	...
...	...	3	...	...	...	...
...	1	...	...	...	1	...
...	2	...	...	...	2	...
...	11	...	...	...	5	...
...	18	3	4	1	15	3

the District since January 1st, 1890.

ious Diseases, at Ardsley.

BOROUGH OF



BARNSLEY.

REPORT

ON THE

Sanitary Condition of Barnsley

IN 1899,

SUBMITTED TO THE TOWN COUNCIL,

BY

Michl. Thos. Sadler, B.A., & M.D.,

LOND.,

Medical Officer of Health ;

AND

F. J. Sadler, M.B., D.P.H.,

OXON.,

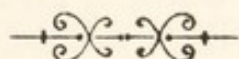
Assistant Medical Officer of Health.

Barnsley :

E. CHEESMAN, PRINTER, &c., 3, MARKET HILL.

—
1900.

REPORT.



To the Town Council of the Borough of Barnsley.

Gentlemen,—

The year ending December 31st, 1899, as compared with the average of the previous 30 years, had a rather higher mean temperature with more than the usual number of hot days in summer, and about the average number of frosty days in the winter months, December having been the coldest month. There was about an inch and a half less than the average amount of rain, and rather fewer wet days. As compared however with 1898 it had about 3 inches more rain and was decidedly colder in the winter months, and hotter in the summer. Fortunately however September was cooler and with much more rain, to which we probably owe it that Diarrhœa was less fatal and Typhoid Fever less prevalent in the Autumn than in 1898. Whooping Cough also was much less fatal, though on the other hand rather more deaths were attributed to Influenza, Measles, Scarlet Fever and Diphtheria.

On the whole however, notwithstanding an increase in the population of the Borough, the deaths have been decidedly less numerous. During the year 792 were registered, but from these 47 have to be deducted, as having been amongst the inhabitants of other Sanitary Districts brought for treatment to the Beckett Hospital and the Union Workhouse, whilst 8 in the Kendray Hospital and 14 in the West Riding Lunatic Asylums amongst patients belonging to Barnsley, have to be added. These deductions and additions give a net total of 767 or 92 fewer than in 1898, also fewer than in any year since 1894. It being now nearly 9 years

since a census was taken, any estimate of the population of the Borough must be more or less liable to error. We do however know that between the middle of 1898 and the middle of 1899, 130 new houses were certified as fit for occupation, and also, that in the opinion of your rate collector there were about 100 fewer empty houses in the middle of last year than at the same period in 1898. In this case there were 230 more occupied houses, and at 5 persons per house, 1150 more inhabitants which added to the estimate for 1898 gives us an estimated population of about 42,400.

On this basis the death-rate for the year was 18.11 per thousand persons living, which, with the exception of that of 1894 (when it was 15.98) is the lowest death-rate recorded in Barnsley for at any rate the last 33 years.

As the Births registered were 1353 in number, the Birth-rate was 31.83 per 1000 persons living, which, though much lower than usual for Barnsley is decidedly higher than the average for the Urban Districts of the West Riding in 1898.

Of the deaths 344 or 43.43 per cent of the whole were amongst children under 5 years of age, and 224 or 28.28 per cent were amongst infants under 12 months of age, which as compared with the number of births gives an infantile mortality of 165.55 for every thousand births. All these proportions are lower than usual, and indicate that there was less disease and mortality amongst young children last year than has usually been the case.

The deaths from the seven principal zymotic diseases were 129 in number, or at the rate of 3.04 per 1000 persons living, an improvement on last year when it was 3.94 per thousand, and also lower than the average for the preceding 10 years, which was 3.61, but still showing that more than one-sixth of the deaths were caused by diseases against the spread of which, sanitary precautions are more especially directed. Of these deaths, 29 were from Measles, 9 from Scarlet Fever, 7 from Diphtheria, 3 from Whooping Cough, 13 from Enteric or Typhoid Fever, and 68 from Diarrhœa. Of these Measles, Scarlet Fever and Diphtheria were rather more fatal than in 1898, whilst Whooping Cough, Typhoid Fever, and Diarrhœa were less so.

Of diseases coming under the Notification Act, 295 notifications were received during the year, or nine more than in 1898. Each of these was investigated to ascertain what precautions were needed to prevent the spread of the disease, either by the removal of Sanitary defects, the keeping of children away from school, Isolation in Hospital, or in any other way.

Of the notifications 151 were of Scarlet Fever, or 52 more than in the preceding year, 69 of them having been in the last quarter of the year, when for want of sufficient accommodation for Typhoid Fever in the Kendray Hospital, we were compelled to use the Scarlet Fever wards for that disease, and consequently were for a short time unable to isolate as many cases of Scarlet Fever as was desirable. Still 87 or 57.6 per cent were removed to the Kendray Hospital with advantage not only to their neighbours but to themselves also, seeing that the mortality amongst those treated in hospital was only 3.4 per cent, whilst amongst those not removed there it was 9 per cent. The type of the disease was decidedly more severe than in 1898, the deaths in the whole number of cases, having been at the rate of 5.95 per cent, whereas in 1898 it was only at the rate of 1.01 per cent.

Of Diphtheria there were 20 cases with a mortality of 7 or 35 per cent. Only 3 were over 20 years of age. Two were clearly imported from other towns, and infected two others. It is fortunate that we have not had a more serious epidemic, considering how prevalent the disease has been in some of the towns of the West Riding, especially as until the Hospital is enlarged, we cannot undertake to treat Diphtheria there.

The cases of Erysipelas, 40 in number, were not important from a sanitary point of view; only in two of them were defects of drainage discovered, and two of them were brought into the Borough for treatment, from other Sanitary districts.

There were eight cases of Puerperal Fever, and 5 deaths, one, a woman whose case had not been notified as Puerperal Fever. In two cases, the same nurse had been attending the patients, but in none of the others was there any evidence of

infection having been conveyed.

There were 76 cases of Typhoid Fever, of which 33 were notified in September and October, and at one time it seemed likely that we were to have a similar outbreak to that in 1898, and some previous years, but about the middle of September rain began to fall rather freely and continued until the 3rd of October, and after the middle of that month a marked diminution set in of the number of cases reported, and there were only 8 in November and 3 in December. Of the 76 cases, 58 or 76.3 per cent, were in houses with Privies, and 18, (one of which had been brought home ill from another district), or rather more than 22 per cent, had water-closets of one sort or another, whereas the proportion of our population served by the two systems is 40 per cent for the water-carriage, and 60 per cent for the privies. In the terraces between Buckley Street and Grace Street, and their neighbourhood, there were 5 cases in 1899, and 11 in the previous year, whilst Wood Street had 6 cases. In the rest of the Borough there was no district especially affected. The disease was of rather a severe type, there being many cases where hæmorrhage from the bowels was a serious symptom. The general mortality was at the rate of 17.1 per cent. That of those treated at home 18 per cent, that of those in the hospital 15.3 per cent.

Of Diseases not coming under the notification act, Measles was the most prevalent, especially towards the end of the year, when it became epidemic amongst the children attending the various Elementary Schools. On November 25th, it was found that there were 174 cases amongst the children attending two Schools at the South-east side of the Borough, with about 1100 children on their registers, and a closing order was issued for a month. By December 5th, in a school on the north side of the Borough, there were 107 cases out of the 610 scholars, and on the 13th, in one on the west side 91 out of 486, whilst the disease was evidently spreading in other directions, so that, out of about 5400 children, there were nearly 600 absent on account of infectious disease, mostly Measles and Whooping Cough. The whole of the schools were therefore closed to the 15th January, part of this period coming in the ordinary Christmas vacation. At the end of that

time, when the Schools were re-opened, though there were still some cases of Measles, there was no such prevalence as to interfere seriously with the attendance of the children, and the deaths which had been 20 in December and 13 in the first half of January, 1900, fell to 9 in the second half.

Whooping Cough was not so fatal as in many previous years, there having been only 3 deaths from it in 1899, but as it is apt to follow a Measles epidemic, we may yet have trouble with it.

Diarrhœa though rather less fatal than in the two previous years, caused more than its ordinary average of deaths, and was as usual here most prevalent during the period when the soil 4ft. below the surface, was at or above a temperature of 56°. That period in 1899 extended from July 11th to September 21st, being 92 days, or 25.2 per cent of the year, but the deaths from Diarrhœa during that time were 55 or 80.8 per cent of the whole, and this does not include 6 deaths from Gastro-enteritis in infants which is probably the same disease under another name. The fall in the temperature of the soil and the abatement of Diarrhœa epidemic both came in four days after the setting in of the rains which marked the last half of September. The influence of the Privy system seems also to be shewn by the fact that 48 or 70.5 per cent were in houses so provided, and only 20 or 29.4 per cent in those which had water carriage, whereas if they had been distributed equally the proportion would have been 40 per cent in the water-closet houses and 60 per cent in the privy houses.

Influenza was certified as the cause of death in 16 cases, a larger number than in any year since 1892, except 1895. Of these 14 were between February and July, and 2 in October, whilst there were none in August and September when Diarrhœa was most fatal, though Bronchitis and Pneumonia were in 5 cases mentioned in the certificates as a complication of the Diarrhœa.

Phthisis, including 6 cases of Tabes Mesenterica caused 68 deaths, or 1.60 per 1000 persons living. The proportion of deaths from this cause seems to be diminishing in Barnsley

during the last few years, the average of the five years 1894-1898 having been 1.56 per 1000, whilst for the preceding five years it was 2.68 per 1000. A similar diminution has been noted in other parts of England and may be fairly attributed to Sanitary improvements in the widest sense of the term, the provision of purer air and more light in houses and workshops, less over-crowding and a little better understanding amongst all classes, that it is too little air and not too much which causes consumption and makes it so fatal when once started.

Kendray and Small-Pox Hospitals.—Since my last report your Hospital, near Lund Wood for Small-pox cases only, has been completed, a care-taker has been appointed, and it as well as the Kendray Hospital for other kinds of infectious disease, has been placed so far as domestic matters are concerned, under the superintendence of Miss Pauline. To her energy and good management it was in great measure due, that although the Hospital was still more than a month from completion, when on October 19th, we were suddenly asked by the County Council Medical Officer to isolate 5 cases of Small-pox from a neighbouring village, yet within 36 hours we were able to admit them. These cases of Small-pox did not occur in the Barnsley Poor Law Union, but the village was only 4 miles distant, and in constant communication with Barnsley. They were consequently a serious menace to us, and it was decided that we should isolate them on condition that the extraordinary expenditure incurred was defrayed by the Sanitary Authority concerned, which has not yet built a small-pox hospital. These cases all did well. The day after they were admitted, a case was reported on a barge at Elsecar, in our own Union, having been imported from Hull. This patient was removed to the hospital the same day, but unfortunately died a day or two later. To the prompt isolation of these cases from the district surrounding Barnsley, we probably owe it that no cases of Small-pox occurred in Barnsley itself.

The total number of cases admitted to the Kendray Hospital during the year was 266, or 33 fewer than last year. This decrease being due to the fact that cases of infectious disease are not spread uniformly over the year, so that whilst we had ample room during some of the summer months, yet

n October we were obliged, as already mentioned, to refuse admission to some cases of Scarlet Fever, lest the hospital should become over-crowded. This state of things is certain to recur in the near future, unless additional room is provided, or the use of the hospital entirely confined to Barnsley. The latter course seems hardly advisable in view of the fact that 150 (or nearly $\frac{3}{5}$) of the cases came from the surrounding districts, and 116 from Barnsley. In all 186 cases of Scarlet Fever, and 80 supposed to be Typhoid Fever were sent to the Hospital, 96 of the cases of Scarlet Fever, and 54 of the Typhoid Fever cases being from the districts of other contributing authorities, and as Typhoid Fever cases are much more costly to maintain than Scarlet Fever cases, it will be seen that much more than half the cost of the maintenance of the Hospital was due to cases sent by other authorities.

Amongst the 186 cases of Scarlet Fever there were 4 deaths, or at the rate of 2.15 per cent. Of the 80 cases sent in as Typhoid Fever two were really Cerebrospinal Meningites, a different disease. Amongst the 78 others, there were 14 deaths, or at the rate of 17.15 per cent, many of the cases being very severe.

Turning now to the routine Sanitary work during the year, 137 notices were issued for the abatement of Nuisances, of which 39 were for defective privies and ashpits, 47 for defective drainage, 10 were for sink-pipes, 3 for want of proper closet accommodation, 3 for defective dwelling-houses, 7 for over-crowding, 9 for filthy houses, or yards, 5 for lime-washing workshops, and 6 for smoke nuisances. There have been 8 privies altered, 10 pulled down, 11 re-built, and 77 waste-water-closets were provided for new property during the year.

We have now close upon 1300 water-closets of this description, and rather more than 700 of the ordinary description, whilst the old-fashioned midden-closets are slowly diminishing, and now are 1960 in number. After making allowance for the fact that the water-closets being in newer and better property than the dry-closets, each serve a smaller number of persons, it is calculated that about 16,500, or about two fifths of our population are on the water-carriage system, and 25,900, or the remaining three-fifths on the ash-

pit system. As I explained in my last annual report, the waste-water carriage system cannot be considered perfect, but it is, at any rate, a great improvement on the midden system, and avoids some of the difficulties which are apt to arise when ordinary water-closets are used in cottage property, such as freezing in cold weather, and being liable to damage by rough and careless tenants. Of course they require regular inspection and supervision, and we have one man whose time is mainly taken up with looking after those in the Borough, but this is no real disadvantage, as it secures a regular inspection of back premises, which in any case is desirable and might otherwise be easily omitted or less effectually performed. Notices have been issued to put the terraces between Grace Street and Buckley Street, to whose insanitary condition I have had to draw your attention in connection with the Typhoid Fever outbreaks of the two last years, on a water-carriage system. Some of the owners have objected on the ground that they are not worse than their fellows in other parts of the Borough, which however is only a reason for requiring similar improvements elsewhere, and as there is some doubt whether the levels and construction of the sewers will allow in some cases of waste-water or only of ordinary water-closets, a report has been asked for from the Surveyors department which will enable you to decide what is to be done. In the meantime it is no doubt true that there are other parts of the Borough, such as Copper Street and Wood Street, in which a similar improvement is equally desirable.

During the year 159 Workshops have been inspected and where needful sanitary improvements insisted on, also 85 Canal-boats, 15 Bake-houses, and 19 Slaughter-houses regularly visited. There have been special inspections of 13 Carcases of Animals, of which 5 were seized and destroyed with the owner's consent, and in two cases portions only were so dealt with. There were also 88 rabbits destroyed as unfit for food.

There have been 14 analyses procured of Samples of Milk of which 11 were genuine, or of fair quality, 2 were of poor quality, and in one case legal proceedings were taken, and a fine of 20/- and costs imposed.

There have been 109 houses disinfected by the Equifex Spray machine, and 4041 articles of clothing disinfected in the Thresh disinfector.

There have been also 4 observations of smoke taken during the year, and 6 notices issued for the abatement of nuisances then observed.

Under the Dairies, Cowsheds, and Milkshop's Order, 16 cowsheds and 2 dairies have been inspected from time to time, and also 7 establishments where offensive trades are carried on.

The Scavenging of the Borough has been carried on throughout the year by your own staff in a satisfactory manner on the whole, though in the Summer there was for a time difficulty in avoiding nuisance from Fishmongers' refuse. Fortunately the amount of night-scavenging instead of increasing year by year as it formerly did, and even outstripping the powers of your staff is now slowly diminishing, and a greater proportion of the work can be done by day, with advantage both as to thoroughness and economy.

Besides sewers in new streets, pipe sewers have been laid in Somerset Street and Market Street, replacing old stone sewers.

A scheme has been prepared for the improvement of the effluent from the Sewage Farm, and is now under the consideration of the Local Government Board and of the Council.

One more yard has been paved in Westgate, and five new streets have been kerbed, flagged, metalled, channelled, and completed during the year.

Some extensions have been made of the Water Mains, and the Midhope Reservoir Works are progressing towards completion.

When they are in a position to supply water to the Borough, one of the main difficulties in the way of a universal water-carriage system, for the removal of fœcal refuse will cease to exist, and we may hope to get rid of what is perhaps the

main defect in our sanitary system.

Your Committee and the Town Council have for so many years shewn yourselves ready to carry out every improvement that could be shewn to be of advantage to the health of the Borough, that I feel sure, that in this respect also, you will not lag behind other and less important places longer than is absolutely necessary.

We are, gentlemen,

Yours obediently,

MICHL. THOS. SADLER, M.D., Lond ,
Medical Officer of Health.

F. J. SADLER, M.B., B.Ch. & D.P.H., Oxon.,
Assistant Medical Officer of Health.

Barnsley

February 6th, 1900.

TABLE I.

Estimated population and number of Births and Deaths in the Borough of Barnsley in the years 1890—1899 inclusive; the number of Deaths being corrected by deducting those in Public Institutions belonging to other Sanitary Districts, and adding those in the Kendray Hospital (and for 1899, those in the West Riding Lunatic Asylums) belonging to Barnsley.

YEAR.	POPULATION,	BIRTHS.	DEATHS.
1899	42400	1353	767
1898	41310	1365	859
1897	40780	1436	802
1896	40130	1402	793
1895	39520	1459	944
1894	38535	1400	617
1893	37630	1538	851
1892	36700	1446	763
1891	35427	1447	923
1890	34610	1295	746

TABLE II.

Annual Birth-rate and Death-rate; Death-rate amongst Children and Infants; proportion of Deaths in Public Institutions; and Zymotic Death-rate in Barnsley in the 10 years—1890 to 1899 inclusive.

YEAR	Annual Rate of Deaths per 1000 persons living.	Annual Rate of Births per 1000 Persons living.	Percentage of Deaths under one year to total Deaths	Infant Mortality per 1000 Births.	Percentage of Deaths under five years to total Deaths	Percentage of Deaths in Public Institutions to registered Deaths.	Zymotic Death-rate.
1899	18.11	31.83	28.28	165.55	43.43	13.63	3.042
1898	20.79	33.04	34.80	219.04	50.05	12.41	3.94
1897	19.66	35.21	35.03	195.68	50.30	15.95	4.09
1896	19.76	34.93	32.66	184.73	51.07	12.15	3.66
1895	23.86	33.66	34.35	230.30	54.41	11.97	6.45
1894	15.98	36.33	31.66	142.10	43.63	16.66	1.86
1893	22.61	40.87	32.21	184.60	48.63	10.56	4.80
1892	20.79	39.12	29.62	165.90	42.59	15.18	1.96
1891	26.05	40.84	31.02	204.50	49.79	10.37	4.37
1890	21.26	37.41	29.80	180.60	43.18	14.01	2.13
Average for 10 yrs. 1889-1898	21.18	36.83	31.90	188.12	48.17	12.83	3.61

Causes of Death at different ages in

DISEASES.	Under 1 year.	1—2	2—5	5—15
Scarlet Fever .....	...	1	3	2
Measles.....	5	13	10	11
Whooping Cough.....	1	2	...	...
Typhoid Fever .....	...	...	...	2
Diphtheria .....	...	3	3	1
Diarrhœa	53	7	1	...
Varicella	1	...	...	...
Croup and Laryngitis	1	2	1	2
Puerperal Fever .....	...	...	...	...
Septicæmia, Gangrene	1	...	...	1
Erysipelas .....	...	...	...	...
Splenic Leucæmia, Pernicious Anæmia .....	...	...	...	...
Chronic Rheumatism .....	...	...	...	...
Dropsy .....	...	...	...	...
Aneurism.....	...	...	...	...
Syphilis	4	...	...	...
Acute Rheumatism .....	...	...	...	...
Influenza .....	...	1	...	...
Cancer .....	...	...	...	...
Phthisis	5	4	...	3
Marasmus, Atrophy, &c.....	10	2	...	...
Alcoholism .....	...	...	...	...
Diseases of Nervous System	26	11	7	8
„ Digestive „	11	1	...	...
„ Urinary & Generative .....	...	1	...	...
„ Heart .....	...	...	...	6
Bronchitis, Pneumonia, and Pleurisy...	45	24	17	3
Gastro Enteritis.....	9	...	...	...
Diabetes .....	...	...	...	...
Childbirth .....	...	...	...	...
Premature Birth & Congenital Debility.	48	...	...	...
Old Age .....	...	...	...	...
Injuries	3	1	4	2
Imperfectly described	1	1	...	...
TOTALS	224	74	46	31

III.

Wardship of Barnsley in the Year 1899.

5	25—	30—	40—	50—65	65—	70—	80—	90—	Totals.
...	...	...	...	...	...	...	...	...	6
...	...	...	...	...	...	...	...	...	29
...	...	...	...	...	...	...	...	...	3
1	...	3	...	...	...	...	...	...	9
...	...	...	...	...	...	...	...	...	7
...	...	...	1	1	2	2	1	...	68
...	...	...	...	...	...	...	...	...	1
...	...	...	...	...	...	...	...	...	6
2	...	...	...	...	...	...	...	...	5
...	...	...	3	1	...	1	...	...	8
...	...	...	1	...	...	...	...	...	1
1	...	1	...	...	...	...	...	...	2
...	...	...	1	...	...	...	...	...	1
...	...	...	...	...	...	1	...	...	1
...	1	...	...	1	...	...	...	...	2
...	...	...	...	...	...	...	...	...	4
...	...	...	2	...	...	...	...	...	2
1	3	3	5	...	2	...	...	...	16
...	1	4	12	4	2	1	...	...	24
6	14	12	13	2	...	...	...	...	68
...	...	...	...	...	...	...	...	...	12
...	1	...	2	...	...	...	...	...	3
...	4	7	18	10	9	1	...	...	105
...	3	4	5	...	2	1	...	...	27
1	5	3	10	6	3	...	...	...	30
1	5	11	11	2	11	...	...	...	55
3	2	8	24	13	16	4	1	...	162
...	...	...	...	...	...	...	...	...	9
...	...	3	...	1	...	...	...	...	4
2	...	...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	...	...	48
...	...	...	...	2	14	15	...	...	31
4	2	8	1	1	6	...	...	...	38
...	...	...	1	...	...	...	...	...	3
22	41	67	110	44	67	26	2	792	

TABLE IIIA.

	At all Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.		Scarlatina.	Diphtheria.	Enteric Fever.	Phtisis.	Bronchitis, Pneumonia,	Pleurisy.	Heart Disease.	Injuries.	All other diseases.	Total.
Deaths occurring outside the district in the Kendray Hospital and West Riding Lunatic Asylum, persons belonging thereto ..	22	...	3	3	3	10	3	Under 5	3	...	...	...	...	...	...	...	...	3
								Upwards.	...	...	4	3	...	...	...	...	12	19
Deaths occurring within the district among persons not belonging thereto.....	47	...	3	1	4	20	19	Under 5	...	1	...	...	...	...	...	2	...	3
								Upwards.	...	...	...	5	10	2	...	9	18	44

TABLE IV.

Showing the mortality from certain Classes of Disease and the proportion of that Mortality, to the estimated population, and to each 1000 Deaths in the year 1899.

CLASS OF DISEASES.	Total Deaths.	Deaths per 1000 Persons living.	Proportion of Deaths to each 1000 Deaths.
Seven Principal Zymotic Diseases	129	3·042	168·18
Zymotic Diseases, including Puerperal Fever, and Varicella	135	3·184	176·01
Pleurisy, Bronchitis and Pneumonia	162	3·821	211·21
Phthisis	68	1·604	88·65

TABLE V,

Shewing the number of Deaths from each of the Seven Principal Zymotic Diseases in the Eleven Years 1889 to 1899, omitting cases from other Sanitary Districts, but including Deaths from Barnsley in the Kendray Hospital.

DISEASES.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	Average number of Deaths for 10 years.	Deaths in 1899.	Proportion per 1000 Deaths from all causes.		Zymotic Death Rate, 1899.
													A For preceding 10 Years.	B In 1899.	
Small-Pox				2	3						0·5	0	·58	0	0
Measles	8	1	78	6	39		54	19	15	22	24·2	29	27·08	37·81	·684
Scarlet Fever ...	8	2	9	9	20	11	16	24	22	1	12·2	9	14·97	11·73	·212
Diphtheria	15	23	9	3	3	4	7	8	1	4	7·7	7	9·80	9·12	·165
Whooping Cough	30	9	34	21	4	1	17	48	4	37	20·5	3	24·88	3·91	·071
Enteric Fever ...	3	7	3	3	36	20	26	7	10	20	13·5	13	16·39	16·95	·306
Diarrhœa	34	32	22	28	76	36	134	41	111	76	59	68	71·01	88·66	1·604
TOTALS	98	74	155	72	181	72	254	147	163	160	137·6	129	164·71	168·18	3·042

TABLE VI.—New Cases of Infectious Diseases notified during each Month of 1899, classified according to Diseases and Ages.

		Small-pox.	Scarlatina.	Diphtheria.	Membranous Croup.	Enteric Fev'r or Typhoid.	Puerperal Fever.	Continued Fever.	Erysipelas.	Removed to Kend. Hos		Removed to Beckett Hospital.
										Scarlet Fever.	Enteric or Typh'd.	
JANUARY—												
Under 5	...	...	8	2	...	3	...	...	1	5	1	...
5 upwards	...	...	6	1	...	4	1	.	3	6	2	...
FEBRUARY—												
Under 5	...	...	4	...	...	...	...	...	...	5	...	...
5 upwards	...	...	1	1	...	4	3	...	4	3	...	...
MARCH—												
Under 5	...	...	7	1	...	2	...	...	...	1	...	...
5 upwards	...	...	7	1	...	5	2	...	2	1	...	...
APRIL—												
Under 5	...	...	1	1	...	1	...	...	...	...	1	...
5 upwards	...	...	9	...	...	3	1	...	1	8	2	...
MAY—												
Under 5	...	...	3	...	...	...	...	...	...	2	...	...
5 upwards	...	...	5	...	...	4	...	...	4	2	2	..
JUNE—												
Under 5	...	...	5	1	...	...	...	...	...	3	...	...
5 upwards	...	...	8	...	...	1	..	...	3	6	...	...
JULY—												
Under 5	...	...	2	...	...	...	...	...	..	2	...	...
5 upwards	...	...	3	2	..	3	..	..	5	2	1	...
AUGUST—												
Under 5	...	...	2	...	...	...	...	..	1	2	...	...
5 upwards	...	...	3	...	...	2	...	...	1	2	...	...
SEPTEMBER—												
Under 5	...	..	1	2	..	1	...	...	...	1	1	...
5 upwards	...	..	7	1	...	18	1	...	3	6	8	...
OCTOBER—												
Under 5	..	...	4	1	...	...	...	...	...	2	...	...
5 upwards	...	...	18	2	...	14	...	...	4	8	4	...
NOVEMBER—												
Under 5	...	...	12	1	...	...	...	...	1	2	...	...
5 upwards	...	..	12	...	...	8	...	...	4	6	2	...
DECEMBER—												
Under 5	...	...	10	1	...	...	...	...	...	4	...	...
5 upwards	...	...	13	2	...	3	...	...	3	8	2	...
Totals												
Totals	Under 5	...	59	10	...	7	...	...	3	29	3	...
	5 upwds	...	92	10	...	69	8	...	37	58	23	...

TABLE VII.—Births and Deaths registered; Deaths under 12 months; and number of Deaths from various causes in each month of the year 1899, and also Deaths in Public Institutions.

1899.	Births	Deaths	Deaths under 1 year	Scarlet Fever	Diphtheria	Enteric Fever	Measles	Whoop'g Cough	Pneumonia, Bronchitis, and Pleurisy.	Influenza	Phthisis	Diarrhoea	In Public Institutions
January ...	119	55	16	1	...	1	1	...	17	...	9	2	5
February ...	110	61	10	1	...	...	1	1	17	1	8	2	14
March	103	55	15	1	...	...	...	...	16	3	5	...	15
April	111	63	16	...	1	2	...	...	13	2	3	1	10
May	120	49	9	1	...	1	...	...	13	3	5	...	11
June	120	55	11	...	...	...	...	...	7	4	12	...	8
July	96	38	15	...	1	2	1	...	7	1	2	3	10
August	117	77	39	...	...	3	...	...	10	...	8	27	8
September..	110	81	43	1	1	1	1	...	5	...	6	29	7
October ...	119	74	19	...	1	3	1	...	26	2	3	3	9
November...	112	61	15	3	1	1	4	1	13	...	4	1	6
December...	116	84	17	...	2	...	20	1	18	...	3	...	4

TABLE VIII.—Temperature and Rainfall in Barnsley in 1899.

MONTH.	Maximum.	Minimum	Days on which 50° was reached.	Days on which 4ft. earth ther. reg. 56° or more	Days on which 70° was reached.	Days of Frost	Days on which Rain fell.	Amount in Inches.
January	54°	24°	6	...	...	10	22	3.33
February ...	57°	26°	5	...	...	13	11	1.22
March	57°	23°	15	...	...	10	14	1.00
April	61°	31°	20	...	...	2	19	1.96
May	72°	35°	30	...	1	...	18	2.76
June	77°	45°	30	...	13	...	10	2.07
July	79°	51°	31	21	19	...	13	1.82
August	84°	52°	31	31	18	...	9	1.42
September...	76°	37°	30	21	2	...	19	3.37
October	63°	33°	26	...	...	...	14	2.53
November	60°	31°	23	...	...	1	10	1.10
December ...	52°	20°	2	...	...	17	20	2.60
TOTALS			242	73	53	53	179	25.18
Average for preceding 30 years			220.3	Av. 7 yrs. 60.	35.6	53.9	186.1	26.88

TABLE IX.

Notices issued for the Sanitary Amendment of Houses and							
Premises...	...	...	...	...	...	...	137
Nuisances abated without Legal Proceedings	...	...					109
In hand at close of 1898	...	...	...	...	...	...	29
Do. do. 1899	...	...	...	...	...	...	28
Waste Water Closets provided for New Property	...	...					77
Cases of Infectious Disease Notified and Visited	...	...					295
Patients admitted to the Kendray Hospital from Barnsley							116
Do. do. do. do. do. other Districts							150
Cases of Scarlet Fever	...	...	...	...	...	...	186
Cases of Enteric Fever	...	...	...	...	...	...	80
Samples of Milk taken for Analysis			...	...	...	...	14
Carcases of Animals Inspected	...	...	...	...	...	...	13
do. Destroyed	...	...	...	...	...	...	5
do. Partly Destroyed	...	...	...	...	...	...	2
Rabbits Destroyed	...	...	...	...	...	...	88
Houses Disinfected	...	...	...	...	...	...	109
Articles Disinfected	...	...	...	...	...	...	4041
do. do. from Barnsley...	...	...	...	...	...	...	2137
do. do. from other Districts	...	...	...	...	...	...	1904
Workshops Inspected	...	...	...	...	...	...	159
Canal Boats Inspected	...	...	...	...	...	...	85
Smoke Observations taken	...	...	...	...	...	...	4