

[Report 1905] / Medical Officer of Health, Belper (Union) R.D.C.

Contributors

Belper (England). Rural District Council.

Publication/Creation

1905

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Belper Rural District Council.

DR. EDWARD GAYLOR'S **33rd Annual Report**

FROM

Jan. 1st, 1905, to Dec. 31st, 1905,

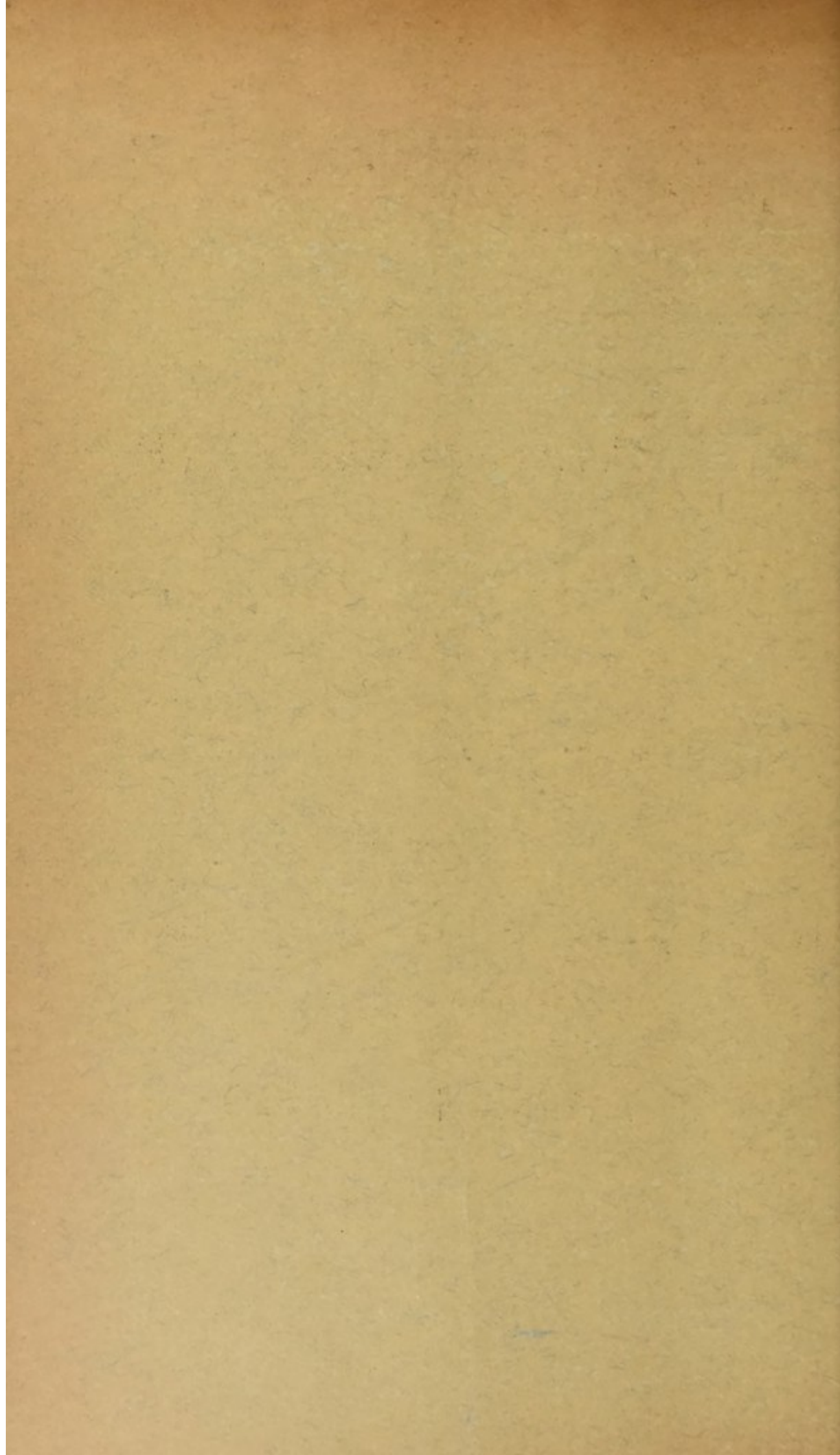
TO WHICH IS ADDED

The Report of the Inspector of Nuisances,

MR. WILLIAM BOULD.

BELPER:

STEWART GIBSON, ALBION PRINTING WORKS, BRIDGE STREET.



SANITARY REPORT FOR 1905.

BELPER RURAL DISTRICT.

TO THE BELPER RURAL DISTRICT COUNCIL.

MR. CHAIRMAN AND GENTLEMEN,

This is my THIRTY-THIRD ANNUAL REPORT dealing with the Vital Statistics of the thirty parishes which comprise the area of the Rural District.

The Census Population of the District in 1901 was 22,477, and estimated to be in 1902 ... 22,726 ;
1903 ... 22,951 ;
1904 ... 23,064 ;
This year, 1905 ... 23,201.

The area of the District in acres is 51,589.

The total deaths from all causes were as follows :

1902	...	...	292
1903	...	...	264
1904	...	...	300
1905	...	...	286

There has been an *increase* in the number of deaths from the Notifiable and other Infectious diseases, which in 1904 numbered 14, and in this year, 1905, there have been 23.

These deaths, as Table IV. will show, were caused as follows :

Scarlet Fever	...	...	1
Diphtheria	...	...	9
Measles	...	...	5
Whooping Cough	...	...	6
Diarrhœa	...	...	2
Total	...	...	23

The total number of notifications in 1905 was 156, as against 101 in 1904.

There were 87 cases of Scarlet Fever, principally of a mild type, and 52 cases of Diphtheria, with 9 deaths registered as from the latter disease.

In 1904 there were 24 cases of Diphtheria, 19 of which were in the parish of Kirk Langley, with 1 death at Duffield.

This year, 1905, 52 Diphtheria cases have occurred, spread over 12 different parishes, and 21 of these cases were notified at Duffield, but only 1 death occurred there, *viz.*, a child 4 years of age.

Table III. shows that the largest number of Diphtheria cases occurred between the ages of 5 and 15 years. Out of the total of 52 cases of that disease, 32 were between those ages, which may be looked upon as the school age.

I know of no special circumstances to account for this large number of Diphtheria cases.

As insanitary conditions do not appear to have much influence in this particular disease, it seems as though *personal contact* must in a great measure account for it.

Sore throats in schools appear to indicate some Diphtheritic condition, and yet when this affection prevailed at Milford and Duffield Schools, Dr. Barwise took 40 swabs from these throats, which were sent to Birmingham for examination, and the true bacillus was only found in *one case*.

These Diphtheria cases were notified in the following parishes :

Allestree	...	...	8
Crich	...	...	3
Darley Abbey	...	...	1
Denby	...	...	5
Duffield	...	...	21
Hazlewood	...	...	1
Holbrook	...	...	3
Kilbourne	...	...	2
Kirk Langley	...	...	1
Mackworth	...	...	1
Milford	...	...	5
South Wingfield	...	...	1
Total	...	...	52

The total number of Notifications of Infectious Diseases were as under :

1902	...	...	65
1903	...	...	51
1904	...	...	101
1905	...	...	156

Two of the deaths from Diphtheria occurred in Hospital :

Female, 7 years, from Milford ;
Male, 9 years, from Hazlewood.

Small Pox.

The particulars given below relate to 9 cases of Small Pox during the year 1905.

6 of these occurred at Holbrook, a locality well known for its opposition to vaccination, and 3 in the village of Markeaton.

The history of the disease was tolerably clear in both outbreaks, and in neither case would the parties consent to re-vaccination.

I may mention here that the following statement was made in the House of Lords in March, 1905 :

From February, 1904, to February, 1905, there had been seven thousand seven hundred and four cases of Small Pox in 315 Urban districts, and of this number, seven thousand four hundred and sixty nine were in 169 districts where re-vaccination was unpopular.

If efficient vaccination and re-vaccination were made the rule, we should no longer have Small Pox epidemics, nor should we require Small Pox Hospitals.

As another instance of the protective power of vaccination the following may be quoted :

Dr. W. H. Paine was called to a woman, 30 years of age, in bed with Small Pox, and her infant, 6 months old was at the breast. The child was vaccinated at once. The patient's sister was in the room attending to her, but she positively refused vaccination, and 14 days afterwards she had *Confluent* Small Pox. She recovered, but was almost unrecognisable. The infant never had Small Pox.

At Basford a woman was admitted to the Small Pox Hospital, aged 37 years. She was at the time suckling a 7 months old baby, but the

baby had been vaccinated about a fortnight previously. The baby was not weaned, but was nursed by its mother throughout her Small Pox illness. This baby was handled and petted by the other Small Pox patients daily, but left the Hospital in perfect health when its mother was discharged.

Dr. Millard, Medical Officer of Health for Leicester, says that in 1904 there were 321 cases of Small Pox, and 4 deaths from that disease. He says there was not a single instance of the disease attacking a person who had been recently vaccinated before exposure to infection.

Not a single member of the Hospital Staff contracted the disease, though they were constantly exposed to infection, and no precautions were taken to secure this result except recent vaccination.

He says that although the masses of the people in Leicester disbelieved in vaccination, the responsible officials who had to fight Small Pox at close quarters had always an unbounded faith in the protective power of vaccination, and had always availed themselves of it when necessary.

He puts the cost of each patient at twenty shillings a week, and the *mean* stay in Hospital was 29 days. This expense, and cab hire, cost of contacts, etc., made up a total cost of £1761 0s. 0d.

The following is worth recording: In August last a steamship from Lisbon arrived at New Bedford, Massachusetts, with a case of Small Pox on board. There were a large number of persons on board, and the authorities sent the vessel on to New York, where the ship was placed in quarantine until all the *558 cabin and steerage passengers had been vaccinated*.

A married woman at Holbrook, aged 33 years, had been ill two or three days with Influenza, and eventually Small Pox developed itself.

The history was as follows: A young man from Sheffield, employed on the Great Northern Railway, had been staying at this house at Holbrook on a visit. He was here 13 days, and returned to Sheffield on Sunday, Jan. 22nd, 1905, and on Saturday, Jan. 28th, I had notification of Small Pox, and it so happened that on that very morning, the 28th, a letter had been received stating that the aunt at the house where this young man lived at Sheffield had been removed to the Small Pox Hospital at Sheffield, so that this case was clearly imported from Sheffield.

The patient was removed to the Belper Small Pox Hospital the same day, *viz.*, Jan. 28th, and the "contacts" in the house refused re-vaccination, and were ordered to remain in the house for at least 14 days.

On the 12th day after this woman had been taken to the Hospital, her husband, 40 years of age, was also taken to Hospital with the same disease. He had remained in the house, excepting a walk in his own garden, since his wife was taken. He still refused his consent to vaccination, because he said he did not believe in it.

There still remained in the house the following unvaccinated persons : a daughter, 18 years of age ; a son, 16 years of age ; a son, 8 years of age, and the baby, 10 months old.

The father had not slept in the Small Pox room occupied by the mother, and the daughter had slept on the sofa downstairs with the baby, and the two boys in a back room recently occupied by the daughter and the baby.

The same rigid regulations were laid down as before for another 14 days at the least.

On the 12th day of February a woman, 63 years of age, was taken to Hospital with Small Pox. This woman had been with the Small Pox patient while she was poorly, and was in the house the same day she was removed to Hospital.

I sent her out of the house and gave her some disinfectant fluid, and instructions about her clothing, etc., and especially that she ought to be re-vaccinated. It appeared she had rigidly carried out these orders except the re-vaccination, and though she had not been near the house since the 28th of January, Small Pox was diagnosed on Feb. 12th, a period of 15 days afterwards.

The family here consisted of 7 adults and 2 children. These were re-vaccinated the next day, Feb. 13th, and Inspector Bould disinfected the house, and burnt certain articles which was considered necessary.

The next day another case occurred in the village, a man 54 years of age, residing two doors off the first case. He was brother to the husband of the woman in the first case, and had been in his house before the wife was removed. After her removal, and while quarantine was being enforced, he kindly did shopping for them, placing the goods outside against the door.

This man had 2 daughters grown up residing with him, and when he was taken to Hospital they were advised to be re-vaccinated.

All these 3 houses were very clean indeed, and very orderly. Disinfection was done in this case.

On the 28th day of February these two young women were taken to Hospital with Small Pox. They had refused vaccination, so were inmates of the Small Pox Hospital with their father.

The house at Holbrook was disinfected, and certain articles burnt.

The next case occurred at the Parish of Markeaton on July 19th, 1905. The cottage was situate in what is known as the Wood Yard, near Markeaton Gates.

A boy, 5½ years of age, had been ill five or six days, and was supposed to have Measles, till his grandmother came over from Derby, and though she did not see the boy, when she heard from her daughter all about the symptoms, she decided to send for a Doctor to see him, and the Doctor came the same day and at once diagnosed Small Pox.

This boy had been in the habit of going to Derby every week with his mother, when she went to purchase her household goods. He had been to Derby on July 7th and July 13th, and at that time there were many cases of Small Pox in Hospital, removed from various parts of the town.

This boy had never been vaccinated.

I think there is no doubt the disease came from Derby. Another probable Derby history is this: about 100 yards from this house there is a brook known as Markeaton Brook, and at this spot the road bridge passes over it, and it is a favourite place for the Derby lads bathing, and where they get mixed up together in their games, etc.

On receiving information from the Doctor, I at once went to the house accompanied by Inspector Bould. The house was very clean and orderly. I found the infected bedroom had three very good beds in it. There was another bedroom, but was not made use of because there was no fireplace in it, and the man, wife, and two children occupied one fair sized bedroom.

Prompt measures were at once taken. The boy had just left for Hospital in the ambulance, and the infected bedding was destroyed by fire on the premises. The room with its other contents was disinfected, and arrangements made for the two other beds to be removed to Belper Hospital and passed through the steam disinfecter.

This Small Pox case was only notified in the latter part of the day, boy removed in ambulance about 6 o'clock in the evening, and myself and the Inspector were on the premises till 9 o'clock, taking every measure of precaution to prevent the disease spreading.

The father of the boy had been vaccinated in childhood, but refused re-vaccination, and the mother, who thought she never had been vaccinated, also refused, saying she did not believe in it, and her mother from Derby, who was in the house, did the same.

On the 29th of July, ten days after the boy was taken to Hospital,

both father and mother were also removed with the Small Pox. The mother began to be poorly on the seventh day after the little boy went to Hospital, and the father on the eighth day, and Small Pox was diagnosed on the 10th day, and both were removed to Hospital the same evening.

The usual precautions, disinfection and the destruction of the infected bedding, were taken in these cases.

The cases of Small Pox in the Belper Rural District have occurred as follows :

- 1883. Kilbourne and Horsley Woodhouse.
- 1887. Coxbench.
- 1888. Denby Bottles, Smithy Houses, The Common, and Kilbourne.
- 1897. Darley Abbey.
- 1903. South Wingfield.
- 1904. Allestree and Mackworth.
- 1905. Holbrook and Markeaton.

Scarlet Fever.

87 cases of Scarlet Fever have been notified during the year 1905. These cases have been distributed over 15 parishes in the district.

The disease has for the most part been of a very mild type.

The only death from Scarlet Fever was at Kirk Langley, where a mild epidemic of the disease existed during the greater part of the year.

A girl, 8 years of age, had attended the Schools Treat in the early part of the week, and seemed in her usual health up to the very evening of her attack. She died of Malignant Scarlet Fever after 24 hours' illness.

The house where she lived was scrupulously clean and very orderly. It appeared her mother had been in the habit of preparing the food for a trained nurse, who was attending a case of Scarlet Fever at a house about 20 yards away. She simply took the food into the house and came away.

This village of Kirk Langley had an estimated population of 561, and in 1904 had an epidemic of Whooping Cough, followed by Diphtheria epidemic with 19 cases, and some half-dozen cases of Scarlet Fever.

Scarlet Fever assumed the epidemic form in 1905, and no less than 32 cases of this disease occurred in different parts of the village.

In 1904 the schools were closed from September to January 30th, 1905, on account of Diphtheria.

The schools had to be closed in July, August, and September on account of Scarlet Fever, and each time the schools had thorough cleansing and disinfection.

The disease broke out in the house of the Schoolmaster, and four cases of Scarlet Fever were discovered in the school, and had been unrecognised, till they were in the "Peeling" stage.

In July it was deemed advisable to destroy, by burning, the books and loose papers in the school, which had been handled by the scholars. Twenty pounds worth were burnt. This evidently checked the spread of the disease, as only five cases were notified afterwards.

I am aware it was a very strong measure to take, but we had to deal with about 18 months epidemics of Whooping Cough, Diphtheria, and Scarlet Fever, all of which are disseminated by school attendances. Add to these matters that Scarlet Fever was mostly of a mild type, with cases unrecognised in the schools, and repeated cleansing, and disinfection, seemed of no particular effect. I felt something else must be done to stay the disease, and allay the village panic, and I decided that fire was the only thing which would destroy the disease germs in the books and papers about the school cupboards, etc.

There were 19 cases from this village removed to Hospital, most of them of the very mildest form of the disease, but they could not be isolated in any other way. If they remain in the cottage the neighbours will visit and stay in the house and chat, and so spread the disease, and the patients themselves feel so much better in a very few days that it is impossible to keep them in quarantine the proper period.

There is also the difficulty with the employers of labour; they will not have workers from an infected house; so that keeping mild cases of the disease at the cottage homes, means great distress, and manufactures pauperism.

Hospitals, in these mild cases, entail large expenses, and in many instances occupy beds which are very much wanted for more serious and important cases.

It is a question whether it would cost less money to pay the workmen's wages than the cost of conveyance to Hospital and the patient's six weeks detention there.

Then there are many cases where it would be impossible to put the Fever patient in a room, where he or she could be isolated in a cottage; and I wonder how many cottages there are where the wife or daughter has any knowledge of nursing a Scarlet Fever patient.

This is a difficulty that does occur, because the Hospital Beds are all occupied at certain times, and cases remain at home.

With a Convalescent Ward, or Home, this state of things could be remedied. There must be many whose discharge would be given in a few days, and these cases would benefit by removal to a Ward where fresh cases of the disease were not admitted. This arrangement would be better for the patient, as well as a measure of additional safety for their homes and their locality when they are discharged.

In the London Fever Hospitals the average periods of the detention of patients with Scarlet Fever was 63 days. Those patients who were sent to the Convalescent Hospital were detained 71 days. I take this from the Hospital Report for 1904.

It is quite obvious that in our own small Isolation Hospital patients could not be detained so long a time.

I may mention here that there is a very great difference of opinion among the members of the medical profession as to the real usefulness of Isolation Hospitals in the treatment and management of Scarlet Fever and Diphtheria, and at the annual meeting of the British Medical Association, held at Leicester in July, 1905, there was a discussion in the Public Health section on this very question.

County Medical Officers of Health, and other medical men, expressed their various opinions on the subject, and eventually the following resolution was proposed and carried: "That as some doubt has arisen "in respect to the value of Hospital Isolation as a preventive measure "in checking the spread of Scarlet Fever and Diphtheria, and in view "of the great expenditure of public money which the provision and "maintenance of Isolation Hospitals for these two diseases entails, it is "highly desirable that a full and exhaustive enquiry into the whole "subject should be carried out, with the object of collecting and analysing the large amount of statistical and other evidence now available; "and that the Local Government Board, as the Central Authority, be "respectfully requested to institute such enquiry."

There is no doubt such an enquiry would clear away a good many unfavourable impressions in regard to these Institutions.

The aggregation of Fever patients in Hospital must have some influence in the propagation of these infectious diseases, and the convalescents in many instances are mixed up in the midst of other cases in all stages of the disease. It is the system, and not the management, which seems to be at fault.

There is little or no isolation in the strict sense of the word, and it is becoming more generally recognized that Scarlet Fever is spread more by the discharges from the nose and throat than it is by "the peeling of

the skin." With all its disadvantages, it certainly is useful in many cases, and will be till some solution of the difficulties I have mentioned above, such as cottage isolation and the objections of the employers of labour, are overcome.

The first case of this disease was that of an invalid child at Duffield, admitted to Hospital with its own nurse as attendant. The only history to be obtained was that the nurse had been visiting at Derby, and it was thought probable she had been to some infected house, and so brought the disease to the house, but nothing satisfactory could be made out. The house and premises were satisfactory in a sanitary sense, and the usual precautions and disinfection was carried out.

A mild case at Kilbourne went to Hospital with the disease, but nothing was discovered as to its history, except that the child attended school at Belper.

At Kirk Langley a girl, 10 years of age, had Scarlet Fever, and was taken to Hospital about the middle of January. She had been an inmate of the Hospital with Diphtheria in November of 1904, and there had been five cases of that disease in the house she lived in during the Autumn of 1904.

At Quarndon a boy, 7 years old, was removed to Hospital. The two bedrooms here were rather small for 7 persons. Existing nuisances were attended to. It appeared there had been two visitors at the house from Derby about ten days before, and this was very probably the cause of the disease. There was no other case in the neighbourhood at the time.

At Holloway a boy, 11 years of age, was taken to Hospital. The house and premises were very insanitary; closet, ashpit, and drainage all required attention.

At Denby a child, 2 years of age, was taken to Hospital. The case was of a mild type, and most probably was the result of one of the other children, who had also had Scarlet Fever, and had been to Hospital, and discharges from the ear set in directly he had got home. This ear discharge is highly infectious after Scarlet Fever. The house and premises were quite satisfactory.

Another case of Scarlet Fever occurred at the house at Kirk Langley above noticed. In this case the girl was 7 years of age, and I think the history of the case may be traced to the fact that this child played with and nursed the dolls belonging to her sister, who was then at the Hospital, and who played with those dolls up to the day she went to Hospital. They were now destroyed.

At Mackworth a boy, 10 years old, was taken to Hospital from a farm house. There was defective drainage, and one or two other matters

required attention, as it was a small dairy farm, the milk from the cows being sold at Derby.

At Duffield a girl, 5 years of age, was taken to Hospital from a butcher's residence. The shop and premises were satisfactory and very clean and orderly. No history could be obtained.

At Denby a boy, 5 years old, went to school at Cross Hills, in another parish, and Scarlet Fever existed there. He took the disease in a fairly mild form, and there seemed ample room in the house to isolate him, and he was nursed by his mother.

This place was a farm house, and the milk of five cows was sold to the villagers, who came to the house to fetch their milk. I did not wish to stop the sale of the milk and damage the farmer, nor did I want to deprive the inhabitants of their milk supply, especially as it is so very seldom the residents of a village can get milk at all, though surrounded by dairy farms, and inhabitants of towns get their milk much more readily than do the dwellers in the rural districts.

I examined all the outbuildings of the farm, and at last found a place which was away from the house, and could readily be made into a suitable place where the milk could be taken after milking, and sold without danger to anybody.

This farm house was very badly supplied with water. There was a pump on the premises, but the well supplying it was oftener empty than not. For the cattle there was a pool a short distance off beside the highway, and the inmates fetched their drinking water from a public pump on the roadside a quarter of a mile away.

At Kirk Langley a boy, 5 years old, went to Hospital. A portion of the drain passed under the house, and other matters inside the house required attention.

A second case of Scarlet Fever occurred at Ireton Houses, in the parish of Kilbourne. A little girl, 4 years of age, was removed to Hospital.

A child from the same house came home from Hospital on the Saturday previous, after about six weeks residence there. In a few days this child began with a very profuse nasal discharge, which of course would be highly infectious, and eventually the second case took the disease.

These cases are very unfortunate, but they will happen in the best regulated Institution. It is quite impossible to be absolutely certain that a patient, when discharged from Hospital, is perfectly free from infection. Hence I am always advocating the establishment of a Sanatorium or Convalescent Home, where all patients shall be sent for a time before they go back to their own homes.

A boy, 5 years old, had a mild attack of Scarlet Fever at Kirk Langley. There were several sanitary defects at this cottage, which were ordered to be attended to.

At Duffield Bank a child, 3 years old, was taken to Hospital. She had not been to school, but had been in the village. The drains were here choked up.

At Church Street, Duffield, a young girl, 14 years of age, was removed to Hospital. There was a cesspool here for the drainage of three houses. It was situate close to the houses, and was a positive nuisance.

A girl, 6 years old, was removed to Hospital from a cottage at Turn-ditch. She had not been out of the parish, and only went to the Village School. The case was a very mild one. She was at School on Monday and Scarlet Fever notified on Thursday. This was one of those cases of so mild a type as to be unrecognized, in its early stages, at home or at school.

A second case occurred at the cottage in Bracken Lane, Holloway, where the sanitary condition of the property was very bad indeed.

A very mild unrecognized case was that of a girl, 5 years old, at Duffield Bank. She was not thought to have the disease at all, and hardly seemed poorly, but in about a week she was found to be freely "desquamating."

At Duffield Park House a little boy, $4\frac{1}{2}$ years of age, had travelled from Edinburgh, with family, on a visit to Duffield. About three days after his arrival at Duffield, certain symptoms were visible, and soon Scarlet Fever was diagnosed. It was, of course, a very clear imported case. The house was large and roomy, and the boy was isolated in a top bedroom, and his own nurse attended to him.

The house and premises had within two or three years had the drainage and other matters thoroughly overhauled and re-constructed.

At Holloway two cases of Scarlet Fever occurred at a house in Bracken Lane.

There are two houses here, close to each other, on opposite sides of the lane, where married sisters reside. One sister had a boy, about 4 years of age, discharged from the Isolation Hospital on the 6th of May, and the children of both families naturally mixed up together, and one child took the disease five days after, and the other on the sixth day, and were removed to Hospital. The drainage at this house was defective.

A third case of the disease occurred at a house in Kilbourne parish, and was taken to Hospital.

About half-a-dozen *mild* cases of the disease occurred at Turnditch about this time, and the school was quite deserted. A sort of "scare" or "panic" prevailed, and the School Managers closed the school for two weeks, and in the meantime Inspector Bould disinfected the schools, and they were thoroughly cleaned.

Another peculiar case of the disease occurred at the house previously mentioned at Holloway. A girl, 7 years old, was sent away to Matlock when Scarlet Fever was in this house. She had been there five weeks, and then had what was thought to be a bad cold. Her parents were asked to fetch her home, and her father went to Matlock for that purpose, and brought her by train to Cromford on a certain Saturday night. From Cromford Station to Bracken Lane is more than two miles, but her father carried her the whole of that distance to her home. On Sunday the Doctor was sent for and pronounced the girl suffering from Scarlet Fever. Of course this was clearly a case of Fever imported from Matlock, and there was considerable danger to the passengers in the train, but all seemed to be the result of ignorance, as no medical man had seen the girl at Matlock.

A child, 5 years old, was taken to Hospital from a newly erected house near Ireton Houses, but in the parish of Denby. This boy had been playing with a child at Ireton Houses, who had been discharged from the Fever Hospital about three weeks previously.

A married woman was taken from Kirk Langley with the disease. Her son, 9 years of age, had been discharged from Hospital three weeks before. The house was large and cleanly, and general sanitation fairly satisfactory.

A few days after her removal to Hospital, two other children in the same house took the disease, and as there were no beds vacant at the Hospital, a Nurse was obtained from the Nurses' Home at Derby, and when I visited the house this Nurse had also that day succumbed to the disease, and a sort of panic pervaded the village, and nobody could be induced to go to the house and give assistance.

The woman who had gone in the house to help when the mother was taken to Hospital, lived about twenty yards distant, and her services could not then be obtained, because she had taken Scarlet Fever to her own house, and her daughter, 5 years of age, was then suffering from the disease.

Three or four days after a boy, 7 years of age, was found to be suffering from the disease at a house in the same village, about half a mile distant. There had been no connection between the two houses, and this boy had attended school. The only history of this case was that friends from Derby had been staying at the house about a week, when this boy began to show symptoms of the disease.

At a dairy farm situate at Weston Underwood, a little girl, 5 years old, had Scarlet Fever, but no history could be obtained. The farm house was quite in an isolated spot, with a very sparse population round about the neighbourhood. The child attended the school in the next village, but no Fever cases were known in the district. Every instruction was given and precaution taken with reference to the milk supply of some thirty cows, which went to London.

At Mapperley a young married woman had a mild attack of Scarlet Fever, and at another house two children, aged 3 and 9 years respectively, also had a mild form of the disease. There were no sanitary defects in either case, nor had there been any case of Scarlet Fever in the parish for very many months.

At Kirk Langley a girl, 8 years of age, died of Malignant Scarlet Fever after 24 hours illness. She was in her usual health up to the day before her death, and attended the usual Schools Treat at the early part of the same week. The house where she lived was quite cleanly, and in every way satisfactory.

There had been a few cases of Scarlet Fever of a mild type in various parts of the village, and this girl's mother had been in the habit of preparing the food for a trained Nurse in attendance on a case of Scarlet Fever a few yards distant from this girl's residence. It appeared she simply took the food into the house and came away.

About a week after this girl's brother, 11 years of age, had Scarlet Fever, and was nursed at home in a roomy house.

Another case was that of a boy, 7 years old, at Langley Common. He could not be removed to Hospital, as no beds were vacant. The case was a mild one.

Another case in the same village, a boy 9 years of age, was taken to Hospital from a small dairy farm. The dairy was outside the house, and the milk was never taken in the homestead, and was made into butter and sold. The drains were not perfect, but the house was clean and orderly.

Two other cases were removed to Hospital from a house on the Common.

From a house on the Green two girls were taken to Hospital, and an order given to clean the house.

About this time four scholars attending school were found to be in what is known as the "peeling stage of Scarlet Fever," and the schools were closed for a month for the purpose of again being cleaned and disinfected.

Several cases of Scarlet Fever were of a very mild type, and I have no doubt there were many "*unrecognized*" cases of Scarlet Fever attending the schools.

A second case of the disease, from a house on the Green, was taken to Hospital. The house had been thoroughly disinfected when the first case was removed.

In the same locality a boy, 5 years, and a girl, 10 years, had the disease, and were isolated at home, with a trained Nurse to attend them. The house was fairly satisfactory. These children had not been to school for some time, and the only likely history was the existence of Scarlet Fever a few yards away.

I may mention here that these two children were the first cases of Diphtheria in the Kirk Langley epidemic of 1904.

A second case was removed to Hospital from a house situate at Town End.

At Church Street, Duffield, a boy, 10 years old, was taken to Hospital. This was the second case removed to Hospital from this house. The house itself is very clean and satisfactory, but there is an objectionable cesspool, or catchpit, close to the back door, which receives the drainage of a block of three houses. The tenants have to keep this emptied, which they do by putting it on their small gardens, but at certain times they cannot empty the contents, and then it becomes a nuisance by overflowing over the backyard of this cottage. The defence is that this condition of things cannot be altered till the sewerage is completed.

At Turnditch a second case has been taken to Hospital from a house situate in the upper part of the village, a boy 3 years old. There is nothing objectionable on the premises.

At Langley Common two other children have been removed from the same house, making four cases of Scarlet Fever removed from one house on three separate occasions. The house was disinfected each time, but in many cottages there is a great deal to be done after disinfection which never gets attended to. The thorough cleansing of walls, furniture, linen, clothing, floors, and other matters, are not thought at all important, and so the germs of disease are among the contents of drawers and boxes, ready to be called into vitality when brought out again for use.

At Smalley a girl, 10 years of age, was taken to Hospital. There was no history, except that the mother and herself had been to Derby, and she began to be poorly afterwards. The premises were fairly satisfactory.

At a farm house at Shottle a girl, 10 years old, had a mild attack of

the disease, and was isolated at home and a Nurse provided. This was a dairy farm, and I examined the cow byres, cooling house, and farm-yard generally. The cow houses were somewhat defective in light and ventilation, but had fair cubic space. The cooling house opened into the back kitchen of the homestead, which is not a satisfactory arrangement. In other respects things were satisfactory.

At South Wingfield a child, 18 months old, was taken to Hospital with the disease from a house where persons from the colliery were taken in as lodgers.

At Kirk Langley Common a boy was removed to Hospital with Scarlet Fever from a cottage, forming one of a block of six houses. It appeared that a boy, living at the other end of the row, had been discharged from Hospital four days previous to this boy's illness. There was one other case of Scarlet Fever higher up the Common, but there had been no sort of connection between the two cases.

At Smalley a girl, 6 years old, residing with her grandparents, was nursed at home with a mild case of Scarlet Fever. Nothing very much was amiss here, except that four cottages had two closets for their accommodation. There was ample room in the gardens attached, and I am a strong advocate for every cottager to have separate closets.

At another part of Smalley there was a row of four houses, and a boy, 4 years old, had Scarlet Fever in one of the cottages. The closets here were very much out of repair, and the so-called ash-pits were in a bad condition, and had not had their contents removed for a very long time, because the residents could get nobody to empty them. They certainly were in a very awkward place for removing the contents, but it was one of those cases (which I see every now and then) which required a system of parochial scavenging.

Two other cases of Scarlet Fever were removed from a cottage not far from the Post Office at Smalley, to Hospital. The sanitary condition of these premises was satisfactory.

At Castle Hill, Duffield, three children and the servant maid were nursed at home by a trained Nurse with Scarlet Fever. The servant, some short time previously, was supposed to be poorly either from a bad cold or from Influenza, and she went to her home at Duffield for about a week, and her sister came to her situation to do her work. I made necessary enquiries, but could get no satisfactory history of the disease.

At Tamworth Terrace, Duffield, a girl, 15 years of age, was taken to Hospital with the disease. She had been a help-maid in a kitchen at the house of a Doctor, but came home every night to sleep, and one evening came home with sore throat. This is the only history to be got at. The premises were fairly satisfactory. In the Summer a case of Diphtheria occurred at the same house.

At King Street, Duffield, a boy, 4 years of age, was taken to Hospital. He attended the Infant School, which was the only history to be obtained.

At Smalley Common a young married woman had Scarlet Fever, and was isolated and nursed at home. The Premises were fairly satisfactory, and the house quite clean and orderly. The woman had attended Ilkeston market, and visited Smalley, where Scarlet Fever then existed.

The above are a few of the cases of Scarlet Fever selected from among the 87 cases notified during the year 1905.

No Scarlet Fever cases were notified in the following parishes: Allestree, Alderwasley, Ashleyhay, Horsley Woodhouse, Kedleston, Morley, Darley Abbey, Holbrook, Horsley, Markeaton, Milford, Pentrich, Ravensdale Park, Windley, and Idridgehay.

I give here the number of Scarlet Fever cases in the Belper Rural District since 1902 :

1902	...	...	56
1903	...	...	33
1904	...	...	62
1905	...	...	87

Diphtheria.

There have been 53 cases of this disease notified during the year 1905.

In the year 1904 there were 24 cases notified, and 19 of these were in the village of Kirk Langley.

In this year, 1905, there have been 21 cases of Diphtheria in the parish of Duffield, and 32 other cases have been distributed over 11 other parishes in the District.

I am quite unable to give an opinion as to the cause of this increase of Diphtheria cases. I know of nothing exceptional in the sanitary condition of these parishes.

The disease appears to be involved in a good deal of mystery, except that it is caused by the presence of a peculiar bacillus, which is generally found to exist in the mucous tissues of the throat in patients suffering from the disease, although it appears that if this certain bacillus is not found in the "swabs" from the throat, it is by no means certain that the patient has not got Diphtheria.

On the other hand the true bacillus has been found in the throats of persons who have been in contact with cases of the disease, and yet who exhibit no symptoms of the disease, and though they themselves are immune, yet they can give the infection to others. So they may be said to be not suffering from the disease, but are carrying Diphtheria about with them.

It seems that the mucous membrane of the throat and nose must be in a certain condition to enable the poison generated by the bacillus to develop, and soon to destroy life, unless the antidote, now known as Anti-toxin, be at once administered for the purpose of neutralising its effects.

In 1893, the year before this disease was treated by Anti-toxin, the mortality of persons suffering from the disease was over 30 per cent. Since that time the average mortality, in really bad, typical cases of the disease, has been reduced to about 10 per cent.

It is very probable that very insanitary conditions have something to do with the production of the disease, or in promoting its development, but the great channel of infection is by direct contact from person to person, and in this way schools are disseminators of the disease. In most schools, children suffering from sore throats are sent home, as it is quite probable that a great many of these sore throats are mild cases of Diphtheria.

I think it not at all improbable that Diphtheria can be spread by dust. There are certain diseases which are closely connected with infectious dust. This may account in some way for the finding of the Diphtheria bacillus in the throats of persons who have never had Diphtheria.

Dust is of a very nasty, objectionable character, especially in the neighbourhood of towns, where all sorts of organic matter from man and animals has become *dried* and *pulverised*, and each particle of dust carrying with it a bacillus capable of producing all sorts of disease by its inhalation.

I have spoken above of the Anti-toxin treatment of Diphtheria, and the Belper Rural District Council, after some discussion, passed the following resolution :

“That the Medical men resident and practising in the Rural
“District be informed that this Authority will repay the cost of
“administering Anti-toxin to patients, or other persons resident
“in the District, in all cases where application is made for the
“same.”

This will be especially useful to the poor, as the cost of the Anti-toxin was beyond their reach, and they lost the benefit of the treatment.

At Kirk Langley, where this disease had been epidemic for the last three months of 1904, a boy, 11 years old, was taken to Hospital from a house situate on the Common. His sister was discharged from Hospital on November 30th, 1904, and a brother on January 3rd, 1905. Both had Diphtheria. This boy began on the first day of the new year, 1905. This house was one of a block of seven, and certain nuisances were being attended to.

At Milford a girl, 7 years of age, was taken to Hospital, and the true Diphtheria bacillus was found in the swab from her throat. She died in the Hospital from Diphtheria, about twelve days after her admission. She attended Milford School, and there was no other history. The house and premises where she lived were in a satisfactory condition, and scrupulously clean.

I may say here that the case mentioned from Kirk Langley also showed the true Diphtheria bacillus.

Another case at Milford, on the same date, was that of a child, 2½ years old. She was taken to Hospital. The house where the child lived is quite isolated, and situate on a very high eminence, a real Derbyshire hill, and no possible history could be got. No visitors had been to this house, nor had the child been from home. The bacillus was found in this case.

At Duffield another Hospital case occurred. A girl, 10 years of age, had the disease, and the bacillus was found in this case. This girl's sister died of Diphtheria, about six weeks previously, at home, but not in the same house where this patient was removed from, her widowed mother having removed some little distance off. An incident in this case was as follows: her sister, while suffering from Diphtheria, had a bed upon the sofa in the living room downstairs, and seeing even the remote probability of this fact being an element in the present case, the sofa was destroyed, rather than it remain a probable source of danger. Other sanitary defects at this cottage were attended to.

Another Hospital case was that of a girl, 5½ years old, at Bank Buildings, Milford. She attended Milford Infant School. No history could be got at, except that other cases were in the neighbourhood. The house and premises were fairly satisfactory.

At Duffield another Hospital case occurred; a boy, 4 years of age, had the disease. He attended the Infant School. The house was very small here, and the back door opened on to a very narrow strip of ground, with a very high wall, so that very little fresh air could be had, either at the back or front door. Certain matters had been attended to by your Inspector just previously. This case also had the bacillus.

At another part of Duffield a girl died of Diphtheria at her own home very suddenly, in fact, after about 24 hours' illness, and when I received

the notification the case had ended fatally. The only history was that she had suffered from a bad cold for two or three weeks, but did not appear to require medical attendance. The premises were quite satisfactory from a sanitary point of view.

Another Hospital case occurred at Duffield in the Town Street. A married woman, the wife of a tradesman, had the disease, and at once Anti-toxin was used by her medical attendant, and as might be expected, she was greatly relieved before she went to Hospital. The bacillus was found in this case. It appeared a child of hers had died a week or two before from some sort of throat affection.

Your Inspector had some alterations of drainage, and other matters attended to at these premises.

At Park Farm, Denby, a girl, 7 years of age, had the disease. This child was not removed to Hospital, and when I visited the house she was in the kitchen with her mother, who also was nursing an infant. I ascertained there were four children in the house, and all slept in the same room. I gave strict instructions about this little girl being isolated and cared for.

Two days after this visit the mother took Diphtheria, and I was told had Anti-toxin given by her medical attendant. The necessary orders were given, and I made a thorough inspection of the farm premises.

There were 16 cows milked at this farm, and the milk goes to London. The cooling house and the copper for scalding the milk cans are outside and away from the house, so that the milk, nor the cans, never go into the homestead at all. The farm buildings and cow byres have very recently been erected, and the arrangements are excellent. The drainage is conveyed right away from the buildings. The water supply is ample, and is conveyed to the farm from a pit shaft.

A neighbour, who lived in another part of the village, was at this house acting as a sort of nurse, and assisting in the farm house, and I ascertained that she was contemplating going to her own home at night, where she had a family of children, and I, of course, gave orders that she must stay where she was till the case got better, and so keep away from her children.

At Duffield, a boy, 9 years of age, had an attack, and the true bacillus was found in this case. He had not been out of the village, nor had there been visitors to the house where he lived. Everything here was quite satisfactory. The same boy had Scarlet Fever in the same house last year (October, 1904).

At the Cemetery Lodge, Duffield, a boy, 16 years of age, had an attack of the disease. It appeared that his brother had been ill with

sore throat some few days before, and it was thought advisable to confine them both in one room. There was no history, and the place was satisfactory in a sanitary sense.

A fatal case of Diphtheria occurred at Kilbourne; a child, $3\frac{1}{2}$ years old, died after a few days' illness. The true bacillus was found, but there was nothing about the premises to throw any light upon the disease. Young as the child was, it had been taken to school.

A third case of this disease occurred at the Hall Farm, at Denby, a boy, 9 years of age. At this house the water is supplied from a deep well, into which the spouting of the buildings is conducted, so that it is partly rain water supply. The farm buildings and cattle have the water supply pumped up from the coal shaft.

I took samples of each, and found both impregnated with organic ammonia, but there is no other water supply, and this village has been for many years suffering from defective and impure water supply.

At Kilbourne a child, $2\frac{1}{2}$ years old, had the disease, with the following history: The child's mother looked after and attended to the three cases of Diphtheria at the farm house mentioned above, and conveyed the disease to her young child when going home.

The water supply here was by no means satisfactory. The pump in the kitchen was only used for cleansing purposes, and the drinking water was fetched from a farm house about 100 yards away, where I do not suppose it could be much better.

The water supply of Kilbourne is a very urgent matter.

At Flaxholme, Duffield, a boy, 12 years of age, went to Hospital with the disease. There was no history except Duffield School. The houses here drained into a cesspool in the garden at back of the houses, and overflowed about the walks, etc., when I visited the place. The water supply was from a pump in the garden. The public water supply mains did not reach here.

A young man, 19 years old, had Diphtheria, with no possible history, except his residence at Duffield. He had never knowingly been in contact with any person suffering from the disease, and where he lived was a model of cleanliness and sanitation.

A young girl, 9 years of age, was removed to Hospital with the disease. The premises were satisfactory. She attended Duffield School. In this case the true bacillus was found before her removal to Hospital.

At Tamworth Street, Duffield, a girl, $4\frac{1}{2}$ years of age, who attended the Infant School, was taken to Hospital. The house she lived in was one of three others, all recently erected, and all the surroundings in the

best of order and cleanliness. Water closets were provided for each house, and no nuisance existed.

At a cottage at Holbrook, a girl, 7 years old, had the disease, and was taken to Hospital. The cottage was quite orderly, and surroundings satisfactory. She attended Holbrook School, and one of the other children from the same house went to Duffield School.

At the house at Flaxholme, Duffield, where a case of Diphtheria had been taken to Hospital some weeks previously, two other children took the disease. It appeared the first case had been discharged from Hospital, cured, a fortnight or more before these two children had the disease in a mild form. I explained the unsatisfactory drainage and water supply when dealing with the first case at this house.

A boy, 11 years of age, had the disease at Fisher Lane, Duffield, and was taken to Hospital. About two months previously a child had the same disease in this locality, but there had been no communication between the two houses.

At Duffield a man, 33 years of age, was removed to Hospital. His wife had been discharged from Hospital five weeks before this, where she had been an inmate from the same disease.

At Moscow Dairy Farm, Milford, two cases of the disease occurred. Both cases were promptly attended to and Anti-toxin used, and they went on very well. I made a minute inspection of this dairy farm at the time, and found it to be a thoroughly well managed farm. The cow byres and cooling house were in admirable order. The animals had ample cubic space, light and ventilation, and great cleanliness prevailed all over the premises. At the time 95 cows were being milked, but no milk went near the homestead, and with the exception that I advised slight alterations in what was called the dairy, or larder, I considered this dairy farm one of the very best in the county.

The patients were isolated and nursed at home.

A serious case of this disease was that of a child, 4 years old, taken to Hospital from Holbrook. The premises and house were fairly satisfactory. The child had not began to go to school, and no history could be obtained.

About a month previously a case occurred at a house not very many yards away, but enquiries proved there had been no connection.

Ten days after this case a boy, 6 years of age, had Diphtheria in the same village. He went to school at Duffield, where there had been several Diphtheria cases. Fortunately Anti-toxin was used at once, and a marked improvement was seen in a very few hours. This case was isolated at home, there being ample room and good nursing.

Milk was sold from here to the villagers, and I had arrangements made for the milk not to come near these premises, but to be taken to a house in the village and sold from there.

Two other cases of the disease occurred at a locality known as the Robin Hood, near Whatstandwell, in the parish of Crich. There were six children at the house, and four of them had suffered from what appeared to be ordinary sore throats. There was no case of Diphtheria in any part of the District.

At last a boy, 16 years of age, showed signs of a Diphtheretic sore throat, and a day or two after his brother, 4 years of age, was seized with alarming symptoms of the disease quite suddenly, and died in about 24 hours. There were certain insanitary conditions in and about the house which were attended to.

Another case of Diphtheria was that of a boy, 9 years of age, at Duffield. This was a very mild case, and would hardly have been diagnosed from the symptoms, but the true bacillus was found from the throat swabbing. The boy went to Duffield School, but there was nothing insanitary existing to throw any light upon the occurrence of the disease.

At Back Street, Duffield, 3 cases of the disease were removed to Hospital from one house. The only history was that one child went to Duffield Infant School. There were drainage defects on the premises.

At Tamworth Terrace, Duffield, a young girl, 14 years of age, was taken to Hospital. She attended Duffield School. There were 14 houses in this terrace, and although the pan closets and ash-places were close to the back doors of each house, it could not be said to be insanitary. The sink-stone drain in each house was cut off from the regular drainage of the block.

The boy, 16 years of age, suffering from Diphtheria, whose case was mentioned above, eventually died from the disease. Both brothers, aged 4 and 16 years respectively, died at home, at a locality known as Robin Hood, in the parish of Crich.

Another case of Diphtheria occurred at Crich, about three weeks after the interment of the lad at Robin Hood. It appeared that some children attended the funeral, and a boy, 7 years of age, took the disease, and was isolated at his parent's house, and recovered.

At a farm house at South Wingfield, a girl, 9 years of age, had Diphtheria, but no history could be obtained. She was treated with Antitoxin, and was thought to be going on very well, but died somewhat suddenly after about ten days' illness. She was well nursed at home.

This farm was a dairy farm, and I made a thorough inspection, and wrote a report upon it to the Trustees. Drainage was bad, there was no cooling house, and the flooring of a large cowhouse required re-laying. These matters, with other smaller details, were attended to.

There had been an Epidemic of Measles at South Wingfield, but this little girl escaped that disease, but at that time complained of sore throat, which eventually developed Diphtheria.

At Allestree a little girl, 6 years of age, was attacked with Diphtheria, and remained at her parent's house, nursed by her mother. When the Doctor saw her he used Anti-toxin, and she appeared to be going on very well for nearly a week, but grave symptoms developed, and she died. The other children in the house were sent away.

At this same house a fatal case of Diphtheria occurred about four years ago. There are two houses here with no back door and no drains. The tenants pour their waste water down the road grating in front of the cottages.

Another case occurred at a cottage situate a few yards from this house, where there are ten cottages, with six closets for the accommodation of the tenants. There does not seem to be any space where any addition could be made, so that each cottage could have their own private closet, which is an arrangement I have always strongly advocated.

A boy, 9 years of age, had a mild form of the disease, and was isolated at home.

Two other cases occurred in another part of the village, but I could not ascertain that there had been any visiting or connection with the other two cases before mentioned.

A little girl, said to be a somewhat delicate, weakly child, took the disease, and seemed to be going on fairly well for a few days, after Anti-toxin had been used. She was isolated at home, but died after about a week's illness.

Two days after the funeral the father took the disease, and was removed to hospital.

In the yard attached to this cottage a nuisance existed with the closet and ashpit, and drainage was defective. The house itself was very clean and orderly. Disinfection was carried out by the Inspector in all these cases, and every precaution taken.

In the parish of Denby a boy, 6 years old, had sore throat for more than a week before the Doctor was called in. There is a large block of houses here built upon a very damp site, with defective water supply, and no proper drainage. The boy was isolated at home.

At Allestree a girl, 6 years of age, had a very mild attack of Diphtheria, with no history except that she had attended school. The sanitary conditions of the premises were fairly satisfactory. She was isolated at home.

Another fairly mild case occurred about the same time in the same village, about half-a-mile away. The case was that of a girl, 6 years old. She had attended school two days before the Doctor was called in. She was kept at home. The drainage was defective at this block of houses.

At a farm house at Mackworth, a boy, 6 years of age, was attacked with a mild form of the disease. The house was situate in the fields, quite isolated, and some distance from the village. This was a dairy farm, and there were eleven inmates. The boy was isolated at home, but no special history could be obtained.

At Broom Park, Duffield, a female domestic servant was taken to the Hospital with Diphtheria. The house here was of modern construction and sanitary arrangements were good. She had returned to the house after a week's holiday at Ripley. I knew there was no Diphtheria at Ripley, but thought there might be sore throats, etc., at the house she stayed at, and I journeyed to Ripley and made strict enquiries, with a view to get some history of the cause. I obtained no probable history, except she had spent a portion of her holiday at Chesterfield.

Another Allestree case was that of a boy, 13 years old, taken to Hospital from a very clean cottage. The closet and ashpit were defective here. The water supply was from a public pump situate higher up the village.

At a small farm house, in the fields belonging to the parish of Hazlewood, a very serious case of Diphtheria occurred. A boy, 9 years of age, attended school at Duffield. He was poorly, and thought to have a bad cold on the Sunday, but the Doctor was not called in till Thursday, and on Friday he had Anti-toxin administered, and on Saturday morning was removed to Hospital, with the Doctor's sanction, of course. On arrival at the Hospital he was noticed to be in a moribund condition, and he died the same afternoon.

One is inclined to the belief that he had Diphtheria at the commencement of his illness, and it was then that the Anti-toxin and medical attendance was required.

The deaths from Diphtheria are less than 5 per cent., if Anti-toxin is administered on the *first day of the disease*.

At Fisher Lane, Duffield, a second case occurred. A little girl, 3 years old, had the disease in a mild form. She had not begun to go to school. Her brother had Diphtheria about 7 months previously, and the cottage was properly disinfected on that occasion. The child was

taken to Hospital. The cottage was fairly satisfactory, but there were accumulations of refuse matter opposite this cottage, which were ordered to be cleared away.

At Allestree a second case occurred at a cottage on the Mount. A boy, 15 years old, who worked at gardening near Derby, had Diphtheria in mild form. His brother, 13 years old, went to Hospital with Diphtheria about a month previously, and was discharged from that Institution about a week before this boy commenced with the disease. The house was disinfected on that occasion, and every precaution taken.

At a farm house, situate in the Fields, at Denby, a girl, 8 years of age, had the disease. She was isolated at home with a trained Nurse. Anti-toxin had been used, and the case did well.

This farm was a small dairy farm, and the milk was sold in the neighbourhood. As a precaution, all the milk utensils were removed to a house some distance away, and the milk kept away from this farm. It appeared the farm had recently changed ownership. It was very insanitary for a dairy farm, but was going to be put in a proper state.

At Darley Abbey a boy, 15 years old, and employed at the Cotton Mills, was taken to Hospital with the disease. He was in the habit of going to Derby as a messenger every afternoon, and I think that would be the history of the disease in his case. This village has weekly scavenging, and wash-down water closets.

At Windley the landlady of the Inn had an attack of the disease, without any satisfactory history. Anti-toxin was used in this case. The premises were insanitary, but were attended to by the owners of the property.

Of course in all cases where Diphtheria occurred, the premises were inspected and sanitary defects remedied.

There seems to be no evidence that Diphtheria is conveyed by the water supply.

I have reason to believe that Anti-toxin was used in many of the above cases, but I can only give my own opinion, unless at the time of my visit some person in connection with the case voluntarily gives me the information, as it is no part of my duty as Officer of Health to make enquiries about the treatment.

The true Diphtheria bacillus was found in swabs from patients' throats by the Birmingham Research College in 21 separate cases.

Enteric or Typhoid Fever.

The only case of this disease occurred at the village of Horsley. An adult young woman had the disease, but no sort of satisfactory history could be obtained as to its cause. The drainage was defective and the closet accommodation was not satisfactory. She was isolated at home and nursed by her sister.

This was the only case of Typhoid Fever notified during the year 1905 among the 30 parishes, with a population of 23,000 persons.

Puerperal Fever.

The only case of this disease was at Duffield. A young married woman was attended in her confinement by a resident Nurse Midwife, with the qualification of L.O.S. Medical attendance was called for about four days after Accouchment. The house was scrupulously clean and orderly. There were no drains in the house. Pail closets were a fairly good distance from the house, and contents removed weekly. There was a good water supply, and I saw nothing to throw any light upon the septicæmic condition of the patient.

Under the regulations of the County Council with reference to the Midwives Act, the Medical Officer of Health should make a report upon cases of this sort, after examination and enquiry of the Midwife who attended.

In the above case, I had the impression that the Midwife, who had the qualification of L.O.S., was exempt from this, and that the regulations only referred to the ordinary Midwife, consequently I made no written report to the County Council.

In the meantime, the County Medical Officer heard of the case in an informal way, and he sent the Nurse Inspector over to Duffield, who made report, and so the case got put in proper form.

Measles.

There were five deaths from this disease during the year 1904 in the parishes of Allestree, Crich, Horsley Woodhouse, and South Wingfield.

The disease prevailed in epidemic form in 16 parishes, where the schools had to be closed in consequence.

Measles is a very peculiar disease to deal with, and school closure seems the only way to deal with it from a public health point of view, though it is often unsatisfactory. The disease is not much noticed till there is a large falling off in the school attendances, and by that time half the unprotected scholars are affected, and to these are added the scholars from infected houses, so that the school is nearly empty. I have found that for Measles the school should be closed for a month. In almost every case where a less period has been fixed upon for closing, the time has had to be extended.

The parents of the children are always ready enough to put the whole blame on the school, and they are also very angry at any delay in closing the school.

As soon as any of these infectious diseases attack a scholar, parents take alarm, and clamour loudly for schools to be closed, and are quite certain that the school is the origin of the disease.

Whooping Cough.

Deaths occurred from this disease at Crich, Holbrook, Pentrich, and South Wingfield.

This concludes the Report so far as Infectious and Notifiable Diseases are concerned, and I append a table of the Deaths during 1905 from this class of disease in eleven different parishes.

Deaths from Notifiable and other Infectious Diseases during 1905.

<i>Parish.</i>	<i>Sex.</i>	<i>Age.</i>	<i>Disease.</i>
Allestree ...	Female ...	6 years ...	Measles.
" ...	Male ...	10 years ...	"
" ...	Female ...	6 years ...	Diphtheria.
" ...	Female ...	5 years ...	"
Crich ...	Female ...	9 years ...	Whooping Cough.
" ...	Female ...	2 years ...	"
" ...	Male ...	4 years ...	Diphtheria.
" ...	Male ...	16 years ...	"
" ...	Female ...	4 years ...	Measles.

<i>Parish.</i>	<i>Sex.</i>	<i>Age.</i>	<i>Disease.</i>
Duffield ...	Female ...	4 years ...	Diphtheria.
Hazelwood	Female ...	75 years ...	Diarrhœa.
"	Male ...	9 years ...	Diphtheria.
Horsley Woodhouse	Female ...	1 year ...	Measles.
Holbrook ...	Female ...	18 months...	Whooping Cough.
" ...	Male ...	1 year ...	"
" ...	Male ...	9 months...	Diarrhœa.
Kilbourne	Male ...	3 years ...	Diphtheria.
Kirk Langley	Female ...	8 years ...	Scarlet Fever.
Milford ...	Female ...	7 years ...	Diphtheria.
" ...	Female ...	9 months...	Whooping Cough.
South Wingfield	Female ...	13 months...	Measles.
"	Female ...	9 years ...	Diphtheria.
Pentrich ...	Male ...	5 years ...	Whooping Cough.

Phthisis and other Tubercular Diseases.

I have to report 29 deaths from the above class of disease during the year 1905, as against 33 in 1904.

According to the reports of the Registrar General, the death rate from Tubercular disease is about one-half what it was about 50 years ago.

Improved sanitation, less over-crowding, better drainage, better dwellings, and more cleanly habits of the people, have caused this reduction in the mortality from the disease.

There is no doubt poverty, and the want of nourishment, residing in damp houses, and in dwellings where hardly any sunshine penetrates, are all conditions which render persons more susceptible to the disease, which is now recognized as infectious and preventable.

The Open-Air treatment of the Sanatoria has done, and is doing a good work.

The proposed Sanatorium for the County of Derby is at present in abeyance. Philanthropy has its limits, and other County matters have claimed prior attention.

The only difficulty appears to me to be with the poor, presuming they do go to these Institutions, and receiving real benefit, how will they go on, when they return home to their poor surroundings. In many villages they would be unable to get their usual quantity of milk, even if they could afford to purchase it.

I often wonder whether small establishments would be better than large Institutions, where the atmosphere would not be so infected by a large number of patients. Of course, at present the actual cure of Phthisis could not be expected from residence in the very best managed Sanatorium, though there could be great improvement, and prolongation of life.

The prevention of the disease is the great thing to aim at, and possibly the cost would not be any the greater if the necessary measures could be agreed upon.

All measures which promote the general health tend to the prevention of Consumption, and the dwellings are the most important in that direction. Plenty of light, air, cubic space, good drainage, are what is required. At the present time, Professor Berring's supposed cure for consumption must not be relied upon, to turn away from other matters of proved importance, though his connection with Anti-toxin gives his scientific discovery great importance.

I append a table of Deaths from Tubercular diseases :

**Deaths from Phthisis and other Tubercular Diseases
during the Year 1905.**

<i>Parish.</i>	<i>Sex.</i>	<i>Age.</i>	<i>Disease.</i>
Alderwasley ...	Male ...	38 years ..	Phthisis.
Crich ...	Male ...	60 years ...	„
„ ...	Female ...	35 years ...	„
„ ...	Male ...	28 years ...	„
„ ...	Female ...	5 months...	Tubercular Peritonitis
Darley Abbey ...	Male ...	61 years ...	Phthisis.
Denby ...	Male ...	29 years ...	„
„ ...	Female ...	3 years ...	Tubercular Meningitis
Dethick, Lea, and } Holloway	Female ..	49 years ...	„
„ ...	Female ...	19 years ...	Tubercular Peritonitis
„ ...	Female ...	69 years ...	„
„ ...	Female ...	3 months...	„
„ ...	Female ...	3 months...	„
„ ...	Female ...	60 years ...	Phthisis.

<i>Parish.</i>	<i>Sex.</i>	<i>Age.</i>	<i>Disease.</i>
Duffield ...	Female ...	39 years ...	„
Horsley Woodhouse	Male ...	53 years ...	„
Kilbourne ...	Female ...	31 years ...	„
Kirk Langley ...	Female ...	10 months...	Tubercular Meningitis
„ ...	Female ...	1 year ...	„
Milford ...	Female ...	37 years ...	Phthisis.
„ ...	Female ...	5 years ...	Tubercular Peritonitis
Morley ...	Female ...	37 years ...	Phthisis.
Smalley ...	Female ...	49 years ...	„
„ ...	Female ...	43 years ...	„
„ ...	Female ...	19 years ...	„
South Wingfield ...	Female ...	16 years ...	„
„ ...	Male ...	6 months...	Tubercular Meningitis
„ ...	Female ...	12 years ...	Phthisis.
„ ...	Female ...	17 years ...	Tubercular Peritonitis

Cancer.

I reported last year, 1904, 24 deaths from this disease.

This year, 1905, there are 27 deaths registered from the various forms of this malignant and terrible disease.

I give a list of the cases occurring in the different parishes, with the sex and age.

The number of deaths from Cancerous disease in the Belper Rural District were as follows :

1902	...	...	12
1903	...	...	17
1904	...	...	24
1905	...	...	27

The statistical investigators of the Imperial Cancer Research Committee state that there is nothing which points to the *actual increase of the death rate from Cancer*.

They state that it is not an infectious disease, and that Cancer is an *identical process* in all vertebrate animals.

Any attempts to directly ascertain the cause and the nature of Cancer are surrounded by so many sources of fallacy, that they remain to-day as unprofitable as they have been in the past.

Deaths from Cancer, or Malignant Diseases during year 1905.

<i>Parish.</i>	<i>Sex.</i>	<i>Age.</i>	<i>Disease.</i>
Allestree	Female	59 years	Cancer of Uterus
Crich	Male	54 years	„ Stomach
„	Male	50 years	„ Oesophagus
„	Female	55 years	„ Breast
„	Female	51 years	„ Liver
„	Male	69 years	„ Liver
Holloway	Male	27 years	„ Stomach
Lea	Female	55 years	„ Oesophagus
„	Female	58 years	„ Uterus
Duffield	Female	69 years	„ Pylorus
„	Male	54 years	„ Liver
„	Female	48 years	„ Rectum
„	Male	66 years	„ Oesophagus
„	Female	49 years	„ Abdomen
Denby	Male	70 years	„ Stomach
Hazelwood	Female	71 years	„ Breast
Horsley Woodhouse	Female	74 years	„ Colon and Liver
„	Male	69 years	„ Liver
Milford	Female	53 years	„ Breast
Morley	Male	58 years	„ Stomach
Quarndon	Female	50 years	„ Liver
South Wingfield	Male	67 years	Epithelioma of Pharynx
„	Male	76 years	Cancer of Liver
„	Male	73 years	„ Liver
Turnditch	Male	68 years	„ Pylorus
Crich	Male	60 years	Epithelioma of Tonsil
„	Male	75 years	Cancer of Uterus

Deaths from Enteritis during 1905.

<i>Parish.</i>	<i>Sex.</i>	<i>Age.</i>
Denby ...	Male	... 6 months
Lea ...	Female	... 18 months
Holbrook ...	Male	... 15 months
Milford ..	Female	... 5 years
Crich ...	Male	... 67 years
Holbrook ...	Female	... 4 years
Mapperley ...	Female	... 3 weeks
Horsley Woodhouse ...	Male	... 5 weeks
Smalley ...	Female	... 6 months
Allestree ...	Female	... 58 years
Crich ...	Female	... 4 months
Kilbourne ...	Male	... 3 months

Accidents and Inquests during 1905.

<i>Parish.</i>	<i>Sex.</i>	<i>Age.</i>	
Alderwasley ...	Male	... 47 years...	Accidentally drowned.
„ ...	Male	... 38 years...	Internal Hæmorrhage from Tubercular disease.
„ ...	Male	... 31 years...	Killed by fall from a ledge, on which he was working.
Crich ...	Male	... 14 years...	Accidentally run over by a waggon.
Holloway ...	Male	... 35 years...	Suicide by Drowning.
Denby ...	Male	... 64 years...	Natural Causes.
H. Woodhouse...	Male	... 18 years...	Suddenly from Natural Causes.
„ ...	Male	... 3 years...	From effects of a Scald.

<i>Parish.</i>	<i>Sex.</i>	<i>Age.</i>	
Horsley	... Male	... 64 years...	Meningitis, caused by fall down stairs.
Kirk Langley	... Male	... 46 years...	Found dead, without marks of violence.
S. Wingfield	... Male	... 60 years...	Crushed between Railway Waggon and Stone Wall.
Markeaton	... Male	... 56 years...	<i>Unknown.</i> Syncope from Starvation and Cold.

Uncertified Deaths.

<i>Parish.</i>	<i>Sex.</i>	<i>Age.</i>	<i>Presumed Cause of Death.</i>
Ashleyhay	... Male	... 10 months..	Convulsions.
„	... Male	... 58 years	... Heart Failure.
Denby	... Male	... 1 day	... Debility.
Dethick, Lea, and } Holloway	Female...	8 months	Teething and Convulsions
Duffield	... Male	... 1 month	... Convulsions.
Holbrook	... Male	... 14 months...	Convulsions.
„	... Male	... 62 years	... Epileptic Fit.
Horsley Woodhouse	Female...	1 hour	... Premature Birth.
Pentrich	... Male	... 5 years	... Whooping Cough.
South Wingfield	... Female...	1 hour	... Premature Birth.
Windley	... Female...	18 years	... Epileptic Fit.
Mapperley	... Female...	2 years	... Convulsions.
Idridgehay	... Female...	71 years	... Heart Disease.

Belper Rural District, 1905. Births.

PARISHES.			Boys.	Girls.	Total.
Alderwasley	...	...	1	5	6
Allestree	...	...	5	11	16
Ashleyhay	...	...	1	2	3
Crich	...	...	38	40	78
Darley Abbey	...	...	14	7	21
Denby	...	...	19	22	41
Dethick, Lea, and Holloway	...	...	14	13	27
Duffield	...	...	33	21	54
Hazlewood	...	...	2	2	4
Holbrook	...	...	12	11	23
Horsley	...	...	6	2	8
Horsley Woodhouse	...	...	26	22	48
Idridgehay and Alton	...	...	5	2	7
Kedleston	...	...	1	...	1
Kilbourne	...	...	25	38	63
Kirk Langley	...	...	5	15	20
Mackworth	...	...	3	1	4
Markeaton	...	...	2	...	2
Mapperley	...	...	5	7	12
Milford	...	...	13	11	24
Morley	...	...	3	2	5
Pentrich	...	...	1	6	7
Quarndon	...	...	5	8	13
Ravensdale Park	...	...	...	...	...
Shottle and Postern	...	...	4	7	11
Smalley	...	...	21	10	31
South Wingfield	...	...	20	24	44
Turnditch	...	...	2	4	6
Weston Underwood	...	...	4	3	7
Windley	...	...	1	...	1
			291	296	587

Birth Rate for 1905 ... 25·30 per 1000.

Birth Rate for England and Wales for 1905 ... 27·2 per 1000.

Belper Rural District, 1905. Deaths.

PARISHES.			Males.	Females.	Total.
Alderwasley	...	...	3	1	4
Allestree	...	...	6	8	14
Ashleyhay	...	...	2	...	2
Crich	...	...	21	20	41
Darley Abbey	...	...	4	3	7
Denby	...	...	10	8	18
Dethick, Lea, and Holloway	...	...	9	9	18
Duffield	...	...	10	13	23
Hazlewood	...	...	2	3	5
Holbrook	...	...	13	4	17
Horsley	...	...	1	1	2
Horsley Woodhouse	...	...	12	12	24
Idridgehay and Alton	...	...	1	3	4
Kedleston	...	...	1	1	2
Kilbourne	...	...	9	3	12
Kirk Langley	...	...	2	6	8
Mackworth	...	...	4	1	5
Markeaton	...	...	1	...	1
Mapperley	...	...	3	5	8
Milford	...	...	4	9	13
Morley	...	...	3	1	4
Pentrich	...	...	1	...	1
Quarndon	...	...	6	1	7
Ravensdale Park	...	...	...	...	...
Shottle and Postern	...	...	2	1	3
Smalley	...	...	3	11	14
South Wingfield	...	...	11	12	23
Turnditch	...	...	1	2	3
Weston Underwood	...	...	1	...	1
Windley	...	...	1	1	2
			147	139	286

Death Rate for 1905 ... 12.32 per 1000.

Death Rate for England and Wales for 1905 ... 15.2 per 1000.

Summary of the Causes of Death, 1905.

Estimated Population		...	23,201.	
Notifiable and Infectious Diseases...	23	...	·99	per thousand.
Phthisis	17	...	·73	"
Other Tubercular Diseases	12	...	·51	"
Cancer (Malignant Diseases)	27	...	1·16	"
Bronchitis	31	...	1·33	"
Pneumonia	10	...	·43	"
Heart Disease	28	...	1·20	"
Enteritis	12	...	·51	"
Accidents and Inquests	12	...	·51	"

Deaths in the Isolation Hospital.

Female, 7 years	...	Milford	...	Diphtheria.
Male, 9 years	...	Hazlewood	...	Diphtheria.

Deaths at the Various Age Periods.

Under 1 year	...	54	...	2·32 per thousand.
1 year and under 5 years	...	25	...	1·07 "
5 years	15 "	18	...	·76 "
15 "	25 "	13	...	·56 "
25 "	65 "	79	...	3·40 "
65 years and upwards	"	97	...	4·18 "

The 97 Aged Persons had a *Mean Age at Death* of 78 years.

Total Death Rates for 1905.

Male Deaths	...	147	...	6·33 per thousand.
Female Deaths	...	139	...	5·99 "

Total Death Rate from all causes during the year 1905,
12·32 per thousand.

Infant Mortality.

In the year 1904 there were 540,393 deaths, from all causes, in England and Wales, and of this number there were 137,490 died within the first year of existence, which is nearly *one quarter of the whole number of deaths.*

With a declining Birth Rate, this state of things becomes very serious.

There can be no doubt that the great cause of mortality among infants is parental carelessness and neglect—exposure to cold, irregular hours of rest, improper food, indisposition of mothers to suckle their own children, artificial foods, and the very impure atmosphere of the houses where slovenliness and dirt exist.

That horrid thing, known as the feeding bottle, and the indiarubber teat, have a great deal to answer for.

Breast-fed infants are always stronger, healthier, and more vigorous than artificially-fed children.

In a certain Borough Town, not particularly noted for its salubrity, there were 957 breast-fed children, and only 20 of them, or about 2 per cent., were delicate.

There is a tendency in these days to shirk the responsibilities of motherhood. Good mothers desire their children to be strong, and she nurses and nourishes her baby, and she not only, by so doing, promotes the health of her own child, but she knows more of the joys of motherhood than those who neglect their duties, and the result, in most cases, is a growing and lasting affection of the offspring for the mother.

The Local Government have this year introduced a new Table V. for the Medical Officer of Health, to give Returns of Deaths, in weeks and months, of all children who die within the first 12 months of their existence.

The Rate per thousand of Deaths of Infants under 1 year of age is, for the Rural District of Belper for 1905, 91.99 per thousand.

This Infant Death Rate is fairly good, but it should be reduced.

Table I. shows that the average rate of Infant Mortality during the last 10 years, 1895–1904, is 115.09 per thousand.

Birth and Death Rates.

Of late years, in most countries, the Birth Rate has been gradually getting less, but it is a fact that the Death Rate also *decreases*.

In the last 30 years, the population of England and Wales has increased by ten millions, and it is said the gross mortality is less to-day than it was then.

60 years ago the average duration of life was about 30 years.

According to recent Life Tables, it is now 49 years.

In 1904, the Birth Rate for the Belper Rural District was 28·0 per thousand.

For this year, 1905, the Birth Rate is 25·30 per thousand, and Table I. will show this 1905 Birth Rate to be the Lowest Birth Rate for the last 10 years.

The 10 years' average Birth Rate is 29·01 per thousand.

Table II. shows that the Birth Rates in two of the parishes are very high in proportion to their populations, viz.—

Horsley Woodhouse	...	40·00 per thousand.
Kilbourne	...	38·93 „

The Birth Rate is lower in France than in any other country we know of.

In 1903 the Birth Rate in England and Wales was 27·9 per thousand, and was the lowest Birth Rate on record. In 1905 it was 27·2 per thousand.

Speaking of the preservation of Infant life, I think Life Assurance should not be so readily available. I have heard that in France no Insurance on a Life can be effected under 10 years of age.

Dairies and Cowsheds.

The number on the Register is now 143, and visits of inspection have been regularly made.

Several improvements and alterations have been effected during the year 1905,—abolition of drains in dairies, and new floorings, new cooling houses outside the farm homesteads, and re-construction of drainage in the farmyards and cowhouses.

When any cases of Infectious disease exist on the dairy farms, the strictist injunctions are given to secure the purity of the milk supply.

Persons who are in any way near the patient in the household are not allowed to milk the cows, or in any way to touch the milk vessels. In cases where there is not ample room for isolation, they are removed to the Isolation Hospital, and any structural defects, not noticed above, are immediately attended to, with a view to remedy. The water supply receives special attention. Every year witnesses gradual improvements which make for public safety.

Scavenging.

This is carried out in the parishes of Duffield, Milford, Darley Abbey, Kilbourne, South Wingfield, and partially at Quarndon.

There can be no doubt this is a very important part of good sanitary work, and will have to be eventually adopted in certain other parishes. In small populations, living in scattered areas, the expense would be deterrent; but it is evident that the periodical removal of all accumulations of dirt, filth, and house refuse, not only helps to purify the surrounding atmosphere, but inculcates a good lesson of instruction in cleanliness.

I try to induce persons to burn the greater part of house refuse on their house fires, instead of putting it in their ashpits, or in heaps on the premises.

Disinfection.

This is systematically carried out at once, when the patient is removed to Hospital, and in other cases where the patient has recovered from illness.

In some cottages very young children take Diphtheria or Scarlet Fever, the patient is kept downstairs in the living room, partly for the convenience of those in attendance, and partly because, in some cases, a fire cannot be had in the bedroom.

In such cases Disinfection is managed in the best way possible, and by scrubbing and scouring floors with dilute solutions of Disinfectant preparations, and the careful washing of all linen, and other articles, that can be so treated.

Preparations of Sulphur and Formalin are the materials generally used in cases where the infected room or rooms can be properly purified.

The Closing of Schools.

Measles has been epidemic in the following parishes, and the Schools have been closed in consequence for various periods, generally one month, which has had to be extended in one or two cases : Quarndon, Allestree, Turnditch, Denby (Smithy Houses), Mugginton, South Wingfield, Kedleston, Kirk Langley, Darley Abbey, Pentrich, Crich, Fritchley, Hazlewood, Kilbourne, Horsley Woodhouse, and Holloway.

In the cases of Turnditch and Kirk Langley, the Schools have been closed on two different occasions for Scarlet Fever at Kirk Langley, and for Measles and Scarlet Fever at Turnditch.

All these Schools have been disinfected by Inspector Bould, who in such cases had to work very hard, as School Disinfection is much more laborious than House Disinfection.

These Schools were also cleansed by the Authorities with Disinfectant solutions—the floors, desks, forms, etc.

I have not closed any of the Schools on my own initiative, but always at the request of the School Authorities, who have furnished me with statistics of the absentees from the schools, either suffering from Measles, or residing at infected houses where the disease existed.

Let us hope that the disease will have infected all the children who were susceptible, so that we shall be troubled no more with Measles epidemic, especially in these parishes, till another generation of unprotected or susceptible children.

Public Works.

The measures to be taken for the Public Water Supply for Smalley, Horsley, Horsley Woodhouse, Denby Parish, and Kilbourne, are still under discussion, and I presume eventually the negotiations with the Ilkeston and Heanor Water Board will result in a very needful and necessary supply of water to the above parishes, which have so long suffered from the quality, as well as the quantity of their present drinking water.

Samples of drinking water are regularly submitted to the County Analyst from various parishes, when considered necessary, and over 60 houses have had water laid on, from the public mains, in Crich, Duffield, Holbrook, Pentrich, and South Wingfield.

The Sewerage question for Duffield is still under the consideration of the Council, and the Engineer appointed for the purpose of carrying out the proper plans.

The Parish of Mackworth is still without a proper water supply, and I am afraid so small a parish will have to await the completion of the Derwent Valley Water Scheme, to enable it to be supplied from the Borough of Derby. There seems to be no sufficient supply of water from any other source, as what was hoped could be had from a spring known as Bowbridge, proved to be inadequate for such a purpose, and the cost of any other scheme, except that of the Derby supply, would be, in such a small parish, quite prohibitory.

New Houses.

Your Surveyor, Mr. Cordon, has kindly furnished me with the following list of New Houses erected in the following parishes during the year 1905 :

Crich	...	...	5 houses.
Darley Abbey	...	...	1 "
Denby	...	...	7 "
Duffield	...	...	13 "
Horsley Woodhouse	...	...	2 "
Kilbourne	...	...	5 "
Kirk Langley	...	...	4 "
Total			37 houses.

There are several additions made to houses, and within the space of two or three months there will be some 18 or 19 houses ready for occupation at Duffield, not included in above.

This concludes my Report for the year 1905.

As before mentioned, Table V. will be found to be a New Table, required by the Local Government Board the first time for 1905.

The Report generally will show a great deal of sanitary work done, and visits of inspection made.

Almost all the Infectious cases have been visited by me personally, at the time of notification, except when more than one case at a time has been notified. In such cases I write the Inspector to visit at once, while I visit in another direction, and afterwards I repeat the visit made by Inspector Bould.

I made special reference to the epidemic of Measles in the Report, which was rife in so many villages at all points of the compass, and which compelled so many schools to be closed. I should say there have been many hundreds of Measles cases in these villages.

I again express my thanks for assistance rendered to me by the Council and their Clerk, and I must be allowed to make special reference to Inspector Bould as a valuable officer and an excellent coadjutor.

I remain, Gentlemen,

Yours obediently,

EDWARD GAYLOR,

February 1st, 1906.

Medical Officer of Health.

Factory and Workshops Acts.

The duties in connection with the above Act have been carried out as usual, and the following is a short summary of the work done.

There are now 55 Workshops on the Register, 3 being added during the year 1905.

A large proportion of the above Workshops are merely domestic Workshops, and in the thinly populated villages consist mostly of home-workers, members of the same family.

93 visits of inspection have been made at various times. There is no attempt or disposition to resist compliance with the Act, and the parties very readily carry out the requirements.

A few verbal instructions were given as to cleansing the premises.

There have been 3 cases of Infectious disease in outworkers' premises, and the employers have been notified of the fact.

Notices have been complied with in regard to defective closet, ventilation and light, lime-washing, and repairing floor.

EDWARD GAYLOR, *Medical Officer of Health.*

WILLIAM BOULD, *Inspector of Nuisances.*

Table 1.

Vital Statistics of the Whole District during 1905 and previous years.

BELPER RURAL DISTRICT.

YEAR.	Population estimated to middle of each Year.	BIRTHS.		Deaths under 1 year of age.		Deaths at all ages.	
		Number.	Rate per 1000.	Number.	Rate. per 1000.	Number.	Rate per 1000.
1	2	3	4	5	6	7	8
1895	21755	701	32.00	83	113.45	358	16.13
1896	22191	691	30.80	60	85.66	275	12.28
1897	22513	657	29.43	96	146.69	327	14.03
1898	23096	658	28.29	75	104.23	298	12.19
1899	23453	657	27.16	88	132.25	317	13.09
1900	23642	608	29.45	70	122.70	321	13.10
1901	22555	672	29.48	90	134.32	287	12.21
1902	22726	658	28.83	77	117.02	292	12.69
1903	22951	612	26.66	60	98.63	264	11.50
1904	23064	546	28.00	62	95.97	300	13.00
Averages for years 1895-1904	22794	656	29.01	76	115.09	303	13.02
1905	23201	587	25.30	54	91.99	286	12.32

Area of District in acres (exclusive of area covered by water), 51,589.

Total population at all ages, 22,477

Number of inhabited houses, 4,529.

Average number of persons per house, 4.96.

} At Census of 1901.

EDWARD GAYLOR,

Medical Officer of Health.

Table 2.
Populations, Birth Rates, and Death Rates in each Parish
for the year 1905.

PARISHES.	Popu- lation.	Birth Rate.	Death Rate.	Mean Death Rate for 5 years.
Alderwasley ...	350	17·14	11·42	8·57
Alle-tree ...	595	26·88	23·52	15·48
Ashleyhay ...	185	16·21	10·81	7·59
Crich ...	3141	24·83	13·05	13·37
Darley Abbey ...	928	22·62	7·54	9·31
Denby ...	1801	22·76	9·99	10·79
Dethick, Lea, and Holloway ...	1340	20·14	13·43	11·87
Duffield ...	2019	26·74	11·39	10·82
Hazlewood ...	401	9·97	12·46	16·39
Holbrook ...	1198	19·19	14·19	12·11
Horsley ...	325	24·61	6·15	12·46
Horsley Woodhouse ...	1200	40·00	20·00	15·67
Idridgehay and Alton ...	275	25·45	14·54	13·13
Kedleston ...	112	8·92	17·85	7·11
Kilbourne ...	1618	38·93	7·41	12·91
Kirk Langley ...	561	35·65	14·26	9·50
Mackworth ...	238	16·80	21·00	12·62
Markeaton ...	203	9·85	4·92	9·83
Mapperley ...	496	24·19	16·12	18·22
Milford ...	1113	21·56	11·68	13·28
Morley ...	344	14·53	11·62	8·56
Pentrich ...	300	23·33	3·33	11·57
Quarndon ...	426	30·51	16·43	10·71
Ravensdale Park ...	46	...	...	13·04
Shottle and Postern ...	427	25·76	7·02	11·34
Smalley ...	1118	27·72	12·52	11·90
South Wingfield ...	1633	26·94	14·08	15·48
Turnditch ...	241	24·89	12·44	12·58
Weston Underwood ...	379	18·47	2·63	7·46
Windley ...	188	5·31	10·63	12·84

Total Birth Rate for the year 1905, 25·30 per 1000.

Total Death Rate for the year 1905, 12·32 per 1000.

EDWARD GAYLOR,

Medical Officer of Health.

Table 3. Cases of Infectious Disease notified during the year 1905 in the Rural District of Belper.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.						TOTAL CASES NOTIFIED IN EACH LOCALITY.																					
	At Ages—Years.						Allestree.	Crich.	Darley Abbey.	Denby.	Dethick, Lea, and Holloway.	Duffield.	Hazlewood.	Holbrook.	Horsley.	Kilbourne.	Kirk Langley.	Mackworth.	Markaton.	Mapperley.	Milford.	Pentrich.	Quarndon.	Smalley.	South Wingfield.	Turnditch.	Weston Underwood.	Shottle.
	At all Ages.	Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.																						
Small-pox	9	..	1	1	7	..	..	..	..	..	6	..	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria	52	11	32	3	6	..	8	3	1	5	..	21	1	3	..	2	1	1	..	..	5	..	..	..	1	..	..	..
Membranous Croup	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Erysipelas	6	..	1	..	5	..	..	1	..	..	1	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scarlet Fever	87	19	58	8	2	..	..	3	3	..	6	16	2	..	..	3	32	1	..	3	..	..	3	7	1	6	1	1
Typhus Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Relapsing Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	1	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	156	30	92	13	21	..	8	7	1	8	7	41	3	9	1	53	2	3	3	5	1	3	7	2	6	1	1	1

Table 3. Cases of Infectious Disease admitted to Isolation Hospital during the year 1905 in the Rural District of Belper.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.						TOTAL CASES NOTIFIED IN EACH LOCALITY.																	
	At all Ages.	At Ages—Years.					Allestree.	Crich.	Denby.	Duffield.	Holbrook.	Dethick, Lea, and Holloway.	Kirk Langley.	Mackworth.	Milford.	Quarndon.	Lilbourne.	Turnditch.	Markaton.	Darley Abbey.	Smalley.	South Wingfield.	Hazlewood.	
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.																		65 and upwards.
Small-pox	9	..	..	1	1	7	..	..	..	6	..	..	..	..	..	..	..	..	3	..	..	..	..	..
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria	25	..	6	12	2	5	..	3	15	2	..	1	..	2	..	..	..	..	..	1	..	..	1	..
Membranous Croup	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scarlet Fever	48	..	12	32	2	2	..	..	2	7	3	19	1	..	..	3	4	4	..	..	3	1	..	..
Typhus Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Relapsing Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	82	..	18	45	5	14	..	3	1	2	22	8	3	20	1	2	3	4	4	3	1	3	1	1

Isolation Hospital at Heage, just over Belper boundary.

Table 4.
Causes of, and Ages at, Death during year 1905, in the
Belper Rural District.

CAUSES OF DEATH.			Deaths in or belonging to whole District at subjoined ages.						
			All ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.
			2	3	4	5	6	7	8
Small Pox	...	...	...	...	...	...	...	...	...
Measles	...	...	5	...	3	2	...	...	...
Scarlet Fever	...	...	1	...	...	1	...	...	...
Whooping Cough	...	...	6	1	3	2	...	...	...
Diphtheria and Membranous Croup	...	...	9	...	3	5	1	..	...
Croup	...	...	...	...	..	...	...	...	...
Fever	{ Typhus	...	...	...	...	...	...	...	...
	{ Enteric	...	...	...	...	...	...	...	...
	{ Other continued	...	...	..	...	...	...	...	...
Epidemic Influenza	...	...	2	...	...	1	...	1	...
Cholera	...	...	...	...	...	...	...	...	...
Plague	...	...	...	...	...	...	...	...	...
Diarrhœa	..	...	2	1	...	...	...	...	1
Enteritis	...	...	12	7	2	1	..	1	1
Puerperal	...	...	...	...	...	...	...	...	...
Erysipelas	...	...	...	...	...	...	...	...	...
Other septic diseases	...	...	...	...	...	...	...	...	...
Phthisis	...	...	17	...	...	1	2	13	1
Other tubercular diseases	...	...	12	5	1	2	2	2	...
Cancer, malignant disease	...	...	27	...	...	...	...	15	12
Bronchitis	...	...	31	5	3	...	...	6	17
Pneumonia	...	...	10	4	2	1	1	...	2
Pleurisy	...	...	...	...	...	...	...	...	...
Other diseases of Respiratory organs	...	...	...	...	...	...	...	...	...
Alcoholism	}	...	2	...	...	...	...	2	...
Cirrhosis of Liver		...							
Venereal Diseases	...	...	...	...	...	...	...	...	...
Premature birth	...	...	5	5	...	...	...	..	...
Diseases and accidents of parturition	...	...	1	...	...	...	...	1	...
Heart diseases	...	...	28	2	...	1	2	9	14
Accidents	...	...	6	...	1	1	...	4	...
Suicides	...	...	1	...	...	...	...	1	...
All other causes	...	...	109	24	7	...	5	24	49
All causes	..	...	286	54	25	18	13	79	97

Table 5.
RURAL DISTRICT OF BELPER.
Infantile Mortality during the year 1905.
Deaths from stated Causes in Weeks and Months under 1 Year of Age.

CAUSE OF DEATH.	Under 1 week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under 1 Year.
<i>All Causes—</i>																	
Certified ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Uncertified ..	..	2	..	..	2	1	1	..	..	..	..	..	1	..	1	..	4
<i>Common Infectious Diseases—</i>																	
Small-pox ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chicken-pox ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scarlet Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria : Croup	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Whooping Cough	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	2
<i>Diarrhoeal Diseases—</i>																	
Diarrhoea, all forms	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1
Enteritis (<i>not Tuberculous</i>)	..	..	..	1	1	..	..	1	1	..	1	..	..	..	..	..	3
Gastritis, Gastro-intestinal Catarrh }	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1
<i>Wasting Diseases—</i>																	
Premature Birth	..	5	..	1	6	..	..	..	..	..	..	..	..	..	..	..	..
Congenital Defects	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	2
Injury at Birth	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Want of Breast-milk	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Atrophy, Debility, Marasmus }	..	5	1	2	2	10	..	3	..	..	..	..	1	..	..	..	4
<i>Tuberculous Diseases—</i>																	
Tuberculous Meningitis	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	2
Tuberculous Peritonitis : Tabes Mesenterica }	..	..	..	..	..	..	..	2	..	1	..	..	..	..	..	..	3
Other Tuberculous Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1
Erysipelas ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Syphilis ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rickets ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Meningitis (<i>not Tuberculous</i>) }	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	2
Convulsions ..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	2
Bronchitis ..	..	..	..	..	..	1	..	..	..	..	..	1	..	1	1	..	4
Laryngitis ..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	2	4
Pneumonia ..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..
Suffocation, overlaying	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Causes ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	12	1	3	3	19	3	5	3	1	2	3	..	5	6	4	3	35

Rural District of Belpor. Population (estimated to middle of 1905), 23,201.

Births in the year : legitimate, 587 ; illegitimate, No Record.

Deaths from all Causes at all Ages, 286.

EDWARD GAYLOR, *Medical Officer of Health.*

Report of Inspector of Nuisances.

DUFFIELD, DERBY,

24th January, 1906.

TO THE CHAIRMAN AND MEMBERS OF THE BELPER
RURAL DISTRICT COUNCIL.

GENTLEMEN,

I have the honour to present my Annual Report for the year 1905.

I have inspected 1335 houses and premises for the detection of nuisances. The visits to Dairies, Cowsheds, Slaughter-houses, etc., appear under the headings to which they refer.

The total number of written notices served was 138, of which 87 were informal.

Numerous verbal cautions were given for minor offences, and infringements of Byelaws and Regulations.

A great deal of structural work has been done under verbal notices.

A summary of sanitary work carried out is given at the end of the Report.

When a Notice has been served for the re-drainage of premises, I have endeavoured to inspect (and to test where practicable) the drains before being covered up. In this I have not always been successful, owing to the area of the District, and the distance apart of some of the jobs.

Under the Petroleum Acts and Regulations I have visited the premises to which they apply, and ascertained that all necessary precautions are taken to prevent danger to the public.

The visits to the twenty-nine parishes, exclusive of Duffield, are given below :

Alderwasley	...	...	3	Kirk Langley	...	29
Allestree	...	...	18	Mackworth	...	8
Ashleyhay	...	...	1	Markeaton	...	3
Crich	...	...	17	Mapperley	...	12
Darley Abbey	...	...	6	Milford	...	8
Denby	...	...	5	Morley	...	2
Dethick, Lea, and Holloway	...	...	7	Pentrich	...	2
Hazlewood	...	...	4	Quardon	...	10

Holbrook	...	...	30	Ravensdale Park	...	0
Horsley	...	...	1	Shottle	...	3
Horsley Woodhouse	...	...	4	Smalley	...	10
Idridgehay	...	...	2	South Wingfield	...	13
Kedleston	...	...	1	Turnditch	...	12
Kilbourne	...	...	18	Weston Underwood	...	4
				Windley	...	6

Dairies, Cowsheds, and Milkshops.

Since 1904, alterations have been made to the Register.

Cowkeepers, Dairymen, etc., Registered	...	15
„ „ struck off Register	...	2
„ „ now on Register	...	143

Visits of Inspection, 89.

All structural defects that have been remedied appear in the summary under the particular heading to which they belong.

Infringements of Regulations are also noted.

Disinfection.

Where patients suffering with Diphtheria, Scarlet Fever, etc., have been removed to Hospital, or, when nursed at home, have recovered, the infected rooms and bedding have been disinfected with Sulphur or Formalin. In Small Pox cases the infected bedding and other articles have been destroyed, and the persons to whom they belong compensated.

Two lots of bedding and clothing were sent to the Infectious Hospital to be disinfected in the apparatus.

Police Court Proceedings.

Complaint.	Result.
Defective drain passing under a house. Sink waste-pipe connected direct to drain, and badly constructed closet.	Work done by your Authority under Magistrates' Order. Costs of work and legal expenses recovered.

Scavenging.

This work is being carried out satisfactorily in Darley Abbey, Duffield, Milford, and South Wingfield. At Kilbourne the Contractor has by no means done his work properly.

The system at Quarndon might with advantage be extended to the removal of nightsoil and ashes, and not merely old pots, tins, etc., as at present.

Again it is my duty to call your special attention to the necessity of adopting a system for the Township of Dethick, Lea, and Holloway. This ought not to be delayed any longer, as some of the sanitary conveniences are in a bad state, and the people have nowhere to deposit the contents of pails and ashpits.

Slaughter-houses.

There is a marked improvement in the observance of the Slaughter-house Byelaws. Lime-washing has been done regularly, and the premises generally kept in a cleanly condition.

Several structural improvements have also been made, and two are now receiving attention, the licences having been refused until the work is done.

Applications for Licences	...	...	2
" " refused	...	...	2
Notices of change of Occupier	...	...	2
Slaughter-houses on Register	...	...	37
" " " in use	...	...	29
Visits of Inspection	...	...	138

A circular letter, *re* Anthrax, issued by the Board of Agriculture, has been sent to each occupier of Slaughter-houses.

Unsound Food.

The following were seized and destroyed :

1 Carcase of Beef.
1 Cow's Liver.
57 lbs. Apples.
60 „ Beef.

Analysis of Water.

Eleven samples of water have been submitted to the County Analyst
Particulars are here briefly given :

Parish.	Analyst's Report.		Result.
South Wingfield	Unfit for drinking	...	Public supply laid on.
" "	" "	...	" "
" "	Fit for use	...	No further action.
Crich	"	...	" "
"	Suspicious	...	Notice served.
"	"	...	Public supply laid on.
"	"	...	" "
"	Fit for use	...	No further action.
"	Unfit for drinking	...	Notice served.
Duffield	Fit for use	...	No further action.
Holloway	Suspicious	...	Notice served.

Public Water Supply.

Notices have been served requiring the owners of premises to lay on a supply of water from your Council's mains, and the following have been complied with :

At Crich	...	...	28
„ Duffield	...	...	2
„ Holbrook	...	...	24
„ Pentrich	...	...	1
„ South Wingfield	...	...	11
Total	...	...	66

Summary of Nuisances abated and Defects remedied.

Accumulation of refuse, etc., removed	...	...	72
Animal nuisances stopped	...	...	7
Ash receptacles provided	...	...	0
Ashpits repaired	...	...	0
Closets cleansed and limewashed	...	...	3
„ repaired	...	...	12
„ privies converted to W.C.s	...	...	21
„ „ „ pails	...	...	2
„ additional provided	...	...	8
Drains, new, provided	...	...	115
„ cesspools constructed	...	...	15
„ relaid	...	...	136
„ trapped	...	...	30
„ unstopped	...	...	21
„ disconnected	...	...	5
„ inspection chambers constructed	...	...	20
Foul ditches and pools cleansed out	...	...	2
Houses re-roofed	...	...	0
„ re-spouted	...	...	2
„ repaired	...	...	3
„ cleansed and purified	...	...	7
„ damp courses laid on	...	...	0
Overcrowding stopped	...	...	3

Smoke nuisances abated	...	...	...	0
Urinals re-constructed	...	...	...	1
Water cisterns cleansed	...	...	...	1
„ wells cleansed	...	...	...	2
„ public supply laid on	...	...	...	66
„ pumps repaired	...	...	...	0
Yard surfaces paved	...	...	...	6
Infringements of Byelaws—Cleansing...	...	...	...	0
Dairies and Cowsheds	...	...	...	8
Slaughter-houses	...	...	...	8
Nuisances	...	...	...	0
Factory and Workshops Act	..	..	..	5
Houses closed as unfit for human habitation	...	...	...	1
		Total	...	582

I again desire to thank your Council and Officers for kind assistance and support in the discharge of my duties, which are not at all times quite agreeable.

I remain, Gentlemen,

Your obedient servant,

WILLIAM BOULD.

