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BELPER UNION  
Rural District Council.

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TWENTY-FOURTH  
**Annual Reports**

OF THE  
MEDICAL OFFICERS OF HEALTH,

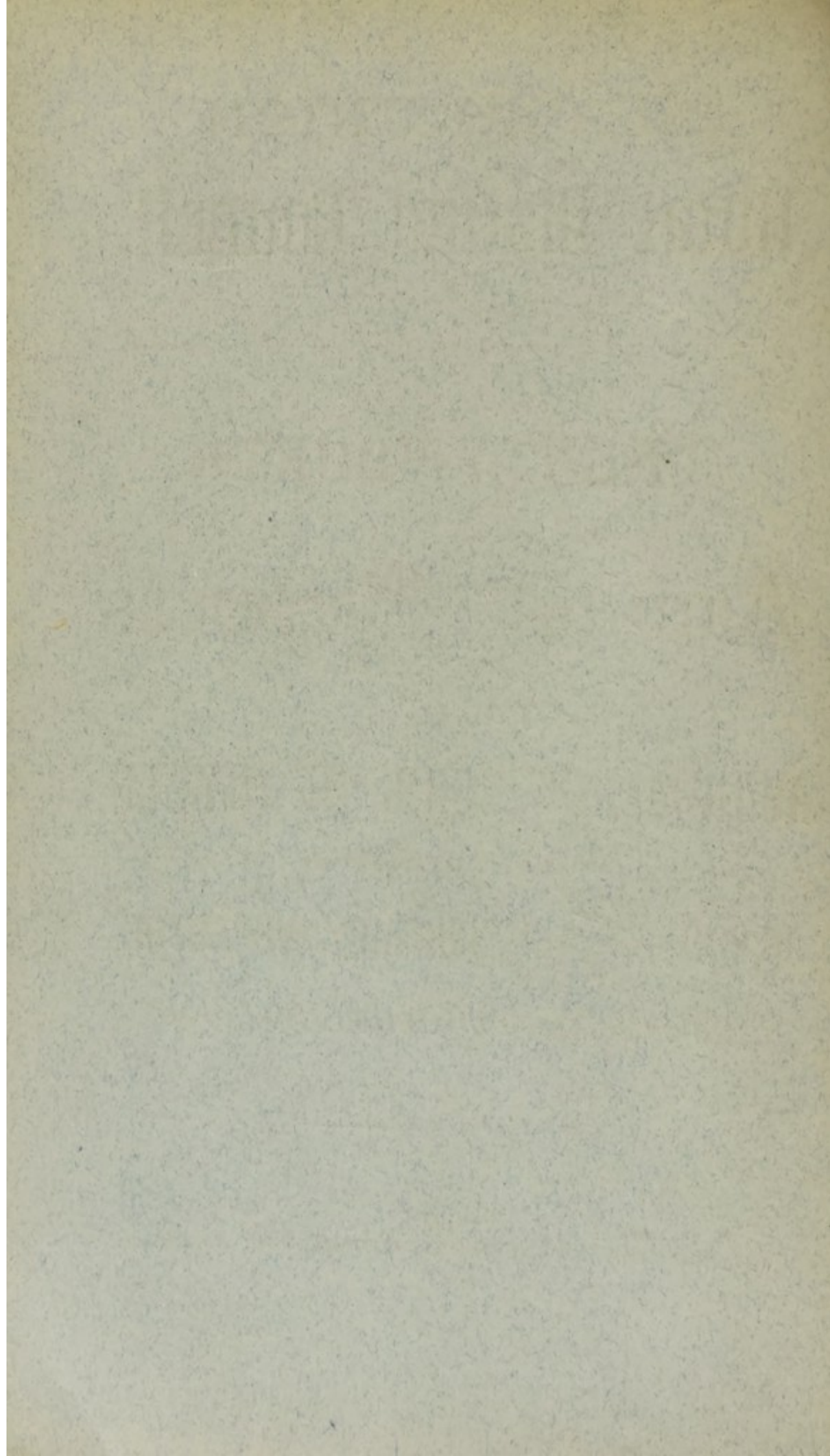
TO WHICH IS ADDED THE

REPORT OF THE SANITARY INSPECTOR,

*From Jan. 1st, 1896, to Dec. 31st, 1896.*

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BELPER :  
THOMAS EDWARDS, GENERAL PRINTER, KING STREET.  
1897.





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# TO THE BELPER RURAL DISTRICT COUNCIL.

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GENTLEMEN,

My Twenty-Fourth Annual Report dealing with the Vital Statistics, and the Sanitary condition of my District, is of a very favourable character, so much so, that the Death Rate for 1896 is the lowest Rate during the whole 24 years past.

In 1873-4 the Death Rate was 18 per 1000 ; in 1896, the Rate is 11.36 per 1000.

Of course such a thing as finality is never reached in Sanitary Matters, and in some cases, and among certain folks, the removal of a Nuisance to-day, means to them an opportunity to create another to-morrow, so that a constant supervision is absolutely necessary if the District is to be looked upon in any way as fairly satisfactory.

There is a greater desire for more than ordinary cleanliness and a very keen recognition of those Insanitary conditions which may be the factors of Disease.

Personal cleanliness is very much more in evidence than it used to be, and that of course engenders an opposition to any accumulations of filth in the surroundings of the dwellings.

Infectious Diseases too, have a much more deterrent influence on the inhabitants of a village, than used to be the case, though we haven't quite got rid of that foolish and ignorant class who prate about the *necessity* and *certainly* of every person passing through some Diseases of this Class at some time of their lives, but mostly in the first few years of existence.

The Population of my District estimated on the basis of *Natural Increase* since the Census of 1891, is 10,823, and these are distributed over 19 separate Parishes, covering the large Area of 32,644 Acres.



I give the Death Rates of each year since the 1891 Census.

1891	.....	16·68 per 1000
1892	.....	17·26 „
1893	.....	13·37 „
1894	.....	12·32 „
1895	.....	14·63 „
1896	.....	11·36 „

## NOTIFICATION OF INFECTIOUS DISEASES.

Since you adopted the Infectious Diseases Notification Act in 1890, the following has been the number Notified in each year—

1890	.....	14
1891	.....	23
1892	.....	70
1893	.....	46
1894	.....	23
1895	.....	36
1896	.....	27

An Epidemic of Diphtheria at Kirk Langley in 1892, increased the numbers in 1892, and Scarlet Fever at Quarndon in 1895.

The distribution of these Cases are as under—

Alderwasley	...	...	3
Allestree	...	...	1
Crich	...	...	5
Darley Abbey	...	...	1
Dethick, Lea and Holloway	...	...	6
Kirk Langley	...	...	2
Mackworth	...	...	2
Pentrich	...	...	3
Quarndon	...	...	1
Shottle	...	...	2
Windley	...	...	1
Total			27

Table B appended to this Report will show the particular Disease distribution.

Of these 27 Infectious Cases only 2 Deaths were recorded, viz. : Darley Abbey, 1 from Typhoid Fever, and a severe case of Erysipelas at Lea. These 2 Deaths give the very low percentage of 1.62.

The Diseases Notified were as follows—

Scarlet Fever	.....	15
Diphtheria	.....	2
Typhoid Fever	.. ...	5
Erysipelas	.....	5
Total	...	<u>27</u>

The 15 cases of Scarlet Fever occurred in the following Parishes.

Alderwasley	...	...	3
Allestree	...	...	1
Crich	...	...	1
Dethick, Lea and Holloway	...	...	3
Mackworth	...	...	2
Pentrich	...	...	2
Quarndon	...	...	1
Shottle	...	...	1
Windley	...	...	1
Total	...	...	<u>15</u>

Of these 15 cases, 5 were under 5 years of age, and 10 were *above* 5 years of age.

*Snall Pox*—I don't think the Anti-Vaccination agitators with their crude babblings about a subject of which they are profoundly ignorant and obtuse, have made any headway in my District.

There have been no cases of Small Pox, and I believe the District may be said to be fairly vaccinated, notwithstanding there may be a Convert here and there to the opposite side of the question, the feeling generally is healthy and vaccination fairly acceptable as to its protective action.

*Scarlet Fever*—As before said 15 cases of this Disease occurred during the year, but with no fatal results.



The first case occurred at Quarndon in the person of a Domestic Female Servant. The history of the case could only be surmised from the fact that the Disease had prevailed in the Village at the end of the year 1895, and this person may have come in contact with some inmate of a House where it had been, or been in such house herself.

The Quarndon Schools had been closed for a Month from November 4th, 1895, to January 1st, 1896, on account of Scarlet Fever Epidemic, and this case occurred about 10 days after.

I visited the Dairy Farm from whence Milk Supply came, and found the Dairy itself very clean, but the Cow Byres were not so satisfactory and were ordered to be cleansed.

The next Noticeable Case was at Crich, and was an imported case. A girl 5 years of age had been on a visit to Shirland, a few miles away, and as she was somewhat poorly, she was fetched to her home, where a resident Medical Man saw her next day, and found her with the well-known rash upon her.

I corresponded with the Shirland people about removing her, but was assured by their Medical Attendant that no signs of any such Disease could be diagnosed at the time she left there.

I had the vehicle which fetched the girl home, thoroughly cleansed and disinfected, as it was often used for various purposes for healthy people in the village.

The next case happened at Windley, where a girl 6 years of age took the disease.

There were 2 Cases of Fever at a Farmhouse where her Father worked, but I couldn't ascertain that he had been anywhere near them, except on the premises. No other cases existed near at that time; the House stood in a field by itself, and there was nothing Insanitary about the place, and the Milk Supply was allright.

The next 3 cases occurred in the Parish of Alderwasley; first case was that of a young man, 15 years of age, who worked at a factory there; nothing could be made out about it; his house was a good distance from the works, and in an isolated situation.

The next case here was of a little girl 4 years of age; the milk used here came from a Farmhouse in same village where Scarlet Fever did really exist, but I satisfied myself this was not the cause.



It was said the Disease existed in a neighbouring Urban District, and there is constant communication between the two places. At this Farmhouse before mentioned, a girl 5 years of age had the Disease.

The House is large, roomy and isolated ; the milk from 9 cows is regularly sold in the village, the inhabitants coming or sending for it from this house.

I made out that the Mother occupied herself solely as Nurse to her child and in no way whatever touched the Milk or the Cans, or ever entered the Dairy at all. The Dairy was clean, properly ventilated,—Water Supply, ample and good. I examined the Cow Byre, and found all in proper order. No Sickness among the Animals.

As one or two children from these infected Houses had been to the Village School, I visited the School and found the attendance there fairly up to the Average as follows—On Books, 80 ; Average Attendance, 70. Present on occasion of my visit, 68.

No other cases occurred in the Village during the year.

The next 3 cases were those of 3 children aged 3, 13, and 15 years respectively. Two in the Schoolmaster's House at Holloway, and the other a short distance away in the same Parish at the Hamlet of Lea.

The first case was that of a girl aged 15 years, who worked at a Factory in the Village ; two of the children in this House went to the Holloway School for 3 or 4 days after the elder girl took the Disease, but no Medical Attendance had been called in till the fourth day, and as soon as the Disease was pronounced Scarlet Fever, of course these children ceased attendance at School ; in all probability this girl worked side by side with some persons from the neighbouring places, outside my District where Scarlet Fever did exist, and that would be the history of her case.

In very many cases if they are of a mild character, no Medical Man will be called in, simply because he Notifies the case. The Medical Officer of Health makes enquiries, and through his visit, some of the other inmates of the same house are prevented going to their usual work, in consequence of their Employers hearing from the Medical Officer ; and especially is this the case in any textile manufactory, where the Material itself might be the carrier of the Disease, and it is cases like these which make it so difficult to trace the real origin and history of an isolated case of Infectious Disease.



We now come to the Schoolmaster's House where there are 8 inmates, viz. : 4 Adults and 4 Children.

The House itself was thoroughly clean, and it formed part of the School itself, in fact it was under the same roof, and this fact of itself would have justified me in closing the Schools.

A young girl, 13 years, and a little boy, 3 years, had the Disease, in the same order I have entered them here.

The Master has a Daughter in the House who is Pupil Teacher and Assistant to him.

The Master's Wife does the Nursing and on no pretence whatever enters the School ; there are no other dwellings very near the School.

I closed the School for 6 weeks, and no other case happened in the Village after the day of closing.

The Schools are large and airy, and are managed by a School Board who did everything I ordered most willingly. There can be no doubt that the Children from the other Infected House brought the Disease into the School, especially as in that House with two Bedrooms,—one occupied by a girl 15 years old, with Scarlet Fever, and Sleeping Accommodation required for 4 others, 2 being Adults ; there would not be any chance of Isolation, though these Children escaped the Disease themselves.

The Milk Supply to both Houses was quite satisfactory to me when I visited the Milk Farm.

We now come to 2 cases at Mackworth. These boys, both from the same House went to School at Derby, and I have no doubt the history of the Disease is there. They resided in a very large, roomy house—could very easily be isolated, and they were so, well nursed, and made a good recovery.

The Water Supply here was defective, and this applies to the Village generally ; and reference will be made to it later on in this Report,

A case of the same disease at Allestree was of a very difficult character to trace :

A young lady—who having been a pupil at the Kingston Dairy Farm, paid a very recent visit to it, and also to another village outside my District, both visits within the "Incubative period" of the Disease. She was in a large Farmhouse and easily isolated, was Nursed very efficiently and got quite well.



They milked 22 Cows here and sent Milk away, but the arrangements were very rigid and complete, and there could be no danger. The Milk wasn't taken in the House, and the Cooling House was also outside in the yard. A sample of Water from here was pronounced of a suspicious and unsatisfactory character.

A case at Shottle Gate had one or two noticeable features :

A Boy 16 years of age, a Farm Servant at a House in another Parish, came home poorly and was at home about a fortnight ; no Doctor was called in till his Mother fell ill, and her Doctor pronounced her suffering from Scarlet Fever ; just previous (a day or two,) the boy's Master had urgently sent for him back to work, he went back, and had been sleeping in the Farm House 3 or 4 days before I knew of the Disease at all ; when I visited his Mother, I went to the Farm where he worked, and I examined his hands which were "*peeling*" freely. As he had slept at his Master's house a few nights, it was of no use ordering him home, as I concluded the mischief had already been done, and so it proved to be ; in a few days afterwards I had notified to me, two of the children with Scarlet Fever, and again visited the place.

At Pentrich, two cases occurred in a Cottage which was not in a very sanitary condition, but this has since been rectified.

They attended School at Pentrich, and Scarlet Fever was very rife in an Urban District close by, I concluded they had taken it by some means in that way.

*Diphtheria*—Only two cases of this Disease occurred during the year, one at Crich, the other at Kirk Langley.

The Crich case was an infant, 18 months old, residing in a very unhealthy Cottage—no drainage, Cottage dilapidated, and soil around it saturated with Slop Water ; no other children in the house—Case recovered.

At Kirk Langley the case was that of a boy 8 years of age, residing with his Parents at a House known as "Windy Harbour" situate at the Brailsford end of the Village.

The House had only one Bed Room and one Living Room, no back door, and no drinking water on the premises.

House, very small, probably built upon the Roadside Waste.

The Privy here adjoined the House at the back and the cesspit was badly protected by a Stone Cover which had no pretence to fitness : the *Inner* wall of this Structure was the *Outer* wall of the House itself.



The Boy went to Brailsford School, but I couldn't ascertain whether Sore Throats were prevalent there or not.

The only other Inmates of this House were the Parents and a Baby in Arms. The Disease didn't spread.

*Typhoid Fever.*—5 cases only of this Disease occurred during the year. The first was a case which terminated *fatally* at Darley Abbey; it was a young girl 13 years of age, and she lived with her Parents and Family of Ten persons, all told; the House was one of a row of three, quite away from the Village, and it had 3 Bed Rooms, with a flush Water Closet attached to the House. This is the rule at Darley Abbey; the Tenants have to fetch the Water and flush the Closets themselves.

This young girl had two Doctors who disagreed as to the Disease, and the third Medical Attendant diagnosed Typhoid Fever, and gave a Certificate of Death to that effect.

I had no Notification, and only knew by receiving the Registrar's Certificate of Death; of course I went and made enquiries and the Doctor didn't know Darley Abbey was in my District, nor that Belper Rural District Council had adopted the "Notification of Infectious Diseases Act."

The next case was at Lea and was that of a Married Woman

The history of the case convinced me that she had contracted the Disease a few miles out of the District, where she had been on a visit. The Water Supply here was from a Pump, but I tested it, and found it fairly good, and by no means the probable cause of this Disease.

Sundry directions were given, a few insanitary conditions removed, and plenty of Disinfectants used, and the case did well.

The next 2 cases happened at Crich. A block of 3 Houses, situate some distance from the Village itself and occupied by 8 persons altogether.

The first case was that of a Widow of middle age, and a young Woman of 19 years of age, married, nursed her and slept in same room on another small bed, with the result that both had Typhoid Fever. Nothing particular insanitary existed about the place, and the Water Supply was from a Spring in a Field some some distance away.

There is also a Draw-Well in their own Garden, but neither of them are bad Water.



The younger woman had Nursed the elder one about a month before she took the Disease; they were instructed in the use of Disinfectants, in fact, in all these Infectious Diseases, I leave them my Printed Instructions how to manage the case.

The next case occurred at Fritchley which is a Hamlet belonging to the Parish of Crich.

The man was 28 years of age, living with his wife in a small house with one Living Room, where the Patient was being Nursed when I visited the Premises.

The House was scrupulously clean, and everything was being properly done before I got there.

The Man had been visiting Leicester and I have little doubt contracted the Disease there, as he had been there quite long enough to have taken the Disease.

*Puerperal Fever.*—No case of this Disease was Notified during the year.

*Erysipelas.*—There were Five cases Notified, and Four of them were really innocent mild cases about which nothing need be said.

One was a *fatal case* and occurred at Lea, in a Man of middle age; it was a dangerous form of the Disease, known to the Profession as "*Phlegmonous Erysipelas*"; in this case, there was nothing to point to Insanitation; the man had passed the middle period of life and lived under very comfortable circumstances and surroundings.

*Measles.*—This Disease is not "Notifiable" and though it has existed at Alderwasley, Crich Carr, Hazlewood and Shottle, so much so, as to be Epidemic at the first three Parishes mentioned which necessitated the Schools being closed, yet *no Death* has occurred from the Disease, so it must have assumed a mild form with no after complications.

*Whooping Cough.*—This Disease has prevailed more or less in many parts of the District, but it never assumed any large proportion, and no Deaths occurred from it, so that it only came under my Notice in a slight degree.

*Phthisis.*—Thirteen Deaths were registered from this Disease, and notwithstanding its Infectiveness becoming more and



more understood and believed in—it has not yet become a Notifiable Disease, though in many Districts thorough disinfection is carried out in the House which has been occupied by a Person dying from the Disease

Some Authorities issue Printed Instructions relative to its Infectiveness and its prevention to those about the sufferer, but at present, terrible as the Disease is, "*Isolation*" would be looked upon with a very natural dread, and would be pronounced an unwarrantable interference with the Social life: that such a policy will be recognised and acted upon some day I have not the slightest doubt, and now we know that it is responsible for many adult lives, beyond any other Disease, and when we also know its cause, and how it can be disseminated, it will be small wonder if some day, strict *Supervision* and *Isolation* becomes a part of the administrative action of those bodies which the Law has charged with the *Prevention of Disease* and the *Preservation of Health*.

*Bronchitis, Pneumonia, and Asthma.*—These Diseases which affect the Respiratory Organs are responsible for 16 Deaths.

This class of Disease does not much concern the Sanitarian, only where it magnifies Infantile Mortality in *close, stuffy, polluted atmospheres* and surroundings, with undue exposure to cold and meagre clothing.

In your District what is known as Infantile Mortality is only at the Rate of 79·58 whereas the Rate for the whole of England and Wales, is 148 varying from that to 220 per 1000.

*Heart Disease.*—This is mentioned here in order to go through the various Diseases indicated by the Local Government Board and County Council on Table A.

Nineteen Deaths occurred from this Class of Disease, the various affections of this Organ being classed under that one expressive word.

*Inquests.*—In the Table A, "Injuries" only are mentioned, but I think this is a good heading under which to include them.

They are as follows, as per Verdicts given :

Suicide by Drowning.

Accidental Drowning when Boating.

Concussion of Brain through Horse Accident.

Suicide by Hanging.

Suffocated while in a Fit.

Killed by Fall of Roof in a Colliery.

Natural Causes (suddenly) 2 cases.

### ZYMOTIC DEATH RATE SINCE 1890, FOR THE WHOLE DISTRICT.

1890	.....	·69	per 1000
1891	.....	·79	"
1892	.....	1·92	"
1893	.....	1·01	"
1894	.....	·76	"
1895	.....	·46	"
1896	.....	.	"

The years 1892 and 1893 show the Epidemics of Diphtheria at Kirk Langley, Ireton Wood and Idridgehay, and Scarlet Fever at Allestree.

### DEATH RATES PER 1000, & PER CENTAGES FOR THE WHOLE DISTRICT FOR THE YEAR 1896.

Total Deaths 123.		11·36	per 1000 or —	per cent.
Under 1 year, 23	...	2·12	"	18
1 year and under 5 years	4 ...	·36	"	3
Under 5 years	27 ...	2·49	"	21
5 and under 15 years	5 ..	·45	"	4
15 " 25 "	8 ...	·73	"	6
25 " 65 "	41 ...	3·78	"	33
65 years and upwards	42 ...	3·88	"	34
Notifiable Diseases	2 ...	·18	"	1
Cancer	5 ...	·46	"	4
Inquests	8 ...	·73	"	6
Phthisis	13 ...	1·21	"	10
Bronchitis	16 ...	1·47	"	13
Heart Diseases	19 ...	1·75	"	15
Male Deaths	55 ...	5·08	"	44
Female Deaths	68 ...	6·28	"	55



The 27 Deaths under 5 years of age, had a *mean age at Death of Six months.*

The 96 persons who lived over 5 years of age, *died at a mean age of 56 years.*

The 55 Males lived 48 years.

The 68 Females lived 41 years.

*The Mean Average Age of the whole 123 Deaths was 43 years.*

The 42 Persons who lived 65 years and upwards had a *mean age of 73 years.*

### INFANTILE MORTALITY.

This is considered somewhat of a Test as to the Sanitary Condition of any District, though of course a very great deal depends upon Parental care as well as the Supervision of the Officers of Health. The Death Rate of Infants, (*that is to say those who die before they have completed the first year of existence*), varies very considerably in certain Districts. A densely populated Urban District often has a very high Death Rate of Infants, compared with a thinly scattered population in a Rural District. Infant Life has a much greater value put upon it in a Rural, as compared with an Urban, District; it is true the conditions of life are very different, but giving all this in, I am one of those who would back up the Parental care and nurture found in Rural Populations, compared with the culpable and careless neglect which is known to be a flagrant element in the large populous towns, where scarcely any of the natural modes of Nursing are adopted; but Artificial Foods, Drugs, Injurious preparations, are resorted to as a very poor substitute for the Mother's own personal care and affection.

The Infantile Rate for my District is very low, and for 1896 is only 79.58 per 1000. The Rate for England and Wales is from 220 or more down to an average of about 148 per 100.

### INFECTIOUS DISEASES (ISOLATION) HOSPITAL.

The joint scheme for which some half-dozen Councils have agreed, has advanced a stage or two since my 1895 Report, such as Purchase of Site and Preparation of Plans, with some other details,



but with all that it has been a slow, tedious process, but we may reasonably hope that before my next Report, some very substantial evidence in the form of the Structure itself may be seen.

## GENERAL INSPECTION OF DISTRICT.

This of course goes on in a regular way, in addition to my visits to all the Notifiable cases of Disease.

Surprise Visits to certain Premises and Properties are made and a very large number of Small Petty Nuisances removed at once without the trouble of any formal Notices. Swill Tubs, Ash Heaps, Soap Suds, and other Slop Waters, Filthy Yards, Stopped-up Drain Traps, Broken Traps, and other Back Door Defilements and Filth get removed, and remedied at once.

The Sanitary Inspector is compiling a Schedule of his ordinary Official Work, which will be appended to this Report, and shows what a large amount of work must be constantly carried out.

## PUBLIC WORKS & IMPROVEMENTS.

Dethick, Lea and Holloway are still adding to their Water Supply.

The Water at Mackworth has been condemned, and measures are being taken for a Public Supply, as hitherto it has been from Pumps, and even then there has been scarcity.

Pentrich have had their Public Well enlarged for purposes of Storage, and to protect the Water from Pollution, a proper Pump is to be fixed over it, and the surroundings made water-tight.

Quarndon is having their present Public Supply considerably increased, and an improved Sewerage System is about to be carried out, by taking the Sewer farther away to some convenient land for Irrigation, and so take it out of the Markeaton Brook which is its present outfall.

## SCHOOL HYGIENE & CLOSING.

The above are receiving very much more consideration, and assuming greater importance, as these matters become better known and understood.



I am not selecting any particular School in my District for any remarks I may make, but the majority of them are defective in most hygienic conditions.

Ventilation is faulty—some deficient in proper Light, which of course is very hurtful to children and young people when at lessons—Drainage is unsatisfactory—No Drinking Water supplied—and most of them are very cold in Winter—The Closet accommodation is bad—The Seats too few in number, and privacy is hardly thought of in the construction of some of them.

They are not cleaned often enough—Disinfectants should be freely used during the holidays.

I am sure, one, or all the above defects put together are responsible for a great deal of Disease and Suffering among the children; and though it seems that these matters are supposed to be under the control of the Inspector from the Educational Department, it appears to me to be quite an anomaly for these matters of Health to be out of the hands of the Councils, Urban and Rural, who are the Guardians of the Public Health.

I think for the sake of Morals and Cleanliness, there should be a separate compartment, or some such arrangement for each Seat in the Closets. The present arrangements as far as I have seen are very likely to induce Throat Affections and a low state of Vitality generally; to say nothing of other probable matters which will readily suggest themselves.

I have found it necessary during the past year 1896, to close the following Schools on account of Epidemics of Measles.

The Disease assumed an Epidemic Form about the beginning of November.

The first School closed being Hazlewood, a mixed School of Boys, Girls, and Infants, all under one structure, but divided into Class Rooms. The number on the Books was 110, at time of my visit some 25 were absent, some with Measles, others probably living in Infected Houses. This School was closed from November 16th to December 14th, 1896.

Alderwasley School came next, and the number on the Books was 76. Average Attendance 60. At time of my Visit only 20 had made their appearance. This School was closed from November 23rd to December 7th, 1896.



Whatstandwell and Crich Carr Schools came next. The number on the Books was 106. Attendances for the 3 weeks previously was 65, 60, and 40 respectively. This School was closed at first from December 14th, 1896, to January 11th, 1897; but it was deemed advisable to extend the Closing time, another week, viz.—to January 18th, 1897.

## GENERAL REMARKS.

Looking at the General Sanitary Condition of the whole District, the first thing that strikes one is the fact that only 2 Deaths have occurred from Diseases of the so-called Zymotic Class.

There were it is true, 5 cases of Typhoid Fever, and one of the Deaths were from that cause, but this Disease is pure and simple a *filth* Disease, and is always looked upon by Health Experts, as the principal Disease associated with Insanitary Conditions; so we may congratulate ourselves that we are at this time in a very fair Sanitary Condition, whether we look at it from the point of the above Disease, or the Total Death Rate of the District, and the *Mean Death Rate* calculated on the past 24 years is equally encouraging.

## COMPULSORY NOTIFICATION.

It may interest you to know that on the 31st of March, 1896, the Population of England and Wales was estimated to be 29,002,525; and the Compulsory Notification of Disease was in force in 820 *Urban* Districts, and in 585 *Rural* Districts; these having an aggregate Population of 26,985,852; so that no less than 1405 Districts enforce the Notification of Infectious Diseases Act, and its immense benefit is convincing enough to all who give a few moments thought to the subject.

## DISINFECTION.

There is just now a consensus of opinion almost in favour of what is called "The Equitex Saturated Steam Disinfector." It seems specially adapted for the Spraying of Walls of Rooms after Disease. I don't suppose it will supersede the other Steam Disinfectors for Beds and other Articles which require a chamber for the purpose.



## BIRTHS.

129 Boys and 160 Girls were born during the year, making a Total of 289 Births for 1896, as against 269 for 1895.

The *Natural Increase* of the Population in 1896 is 166 persons, and the Total Birth Rate is 26.79 per 1000.

In 1895, the Birth Rate was 25.24 per 1000

The Male Birth Rate is 11.91 per 1000

The Female Birth Rate is 14.78 per 1000

*The Mean Birth Rate for the past 23 years is 29.99 per 1000*

This, Gentlemen, concludes my Annual Report for 1896.

As before said, it shows the lowest Death Rate, and the smallest *Zymotic Death Rate* for the past 24 years.

I feel justified in expressing my satisfaction at the general Sanitary Condition of my District, and I shall in the future, as in the past, take care to keep it in this condition, if it depends upon my general supervision as your Officer of Health.

I certainly receive every possible assistance from the Council and your Chairman, whom I venture to congratulate on his extensive knowledge of Sanitation, and his readiness to suggest every possible change which makes for the preservation of the Public Health and which also means a very appreciable alleviation of suffering and expense.

GENTLEMEN,

I hope the same mutual confidence in each other which has marked my past Official connection with you as a Council, may still continue, so that there may be a real pleasure to me in the performance of my duties, and satisfaction to you as Guardians of the Public Health.

I remain, Mr. Chairman, and Gentlemen,

Your obedient Servant,

**EDWARD GAYLOR.**

*Medical Officer of Health for Belper Rural District; and  
Alfreton and Ripley Urban Districts.*

Belper, February 4th, 1897.

# TABLE 1.

## BELPER RURAL DISTRICT COUNCIL.

### CLASSIFIED CAUSES OF DEATH.

*From January 1st, 1896, to December 31st, 1896.*

Population on December 31st, 1896, (*calculated by Natural Increase, since the Census, 1891*), 10,823.

Area in Acres, 32,644. Parishes, 19.

DISEASES.			Under 5 years of age	Above 5 years of age	TOTAL.
Typhoid Fever	...	...		1	1
Erysipelas	...	...		1	1
Rheumatic Fever	...	...		1	1
Phthisis	...	...		13	13
Bronchitis	...	...	5	11	16
Heart Disease	...	...		19	19
Influenza	...	...		2	2
Tubercular Diseases	...	...	3	3	6
Brain Disease	...	...		1	1
Apoplexy	...	...		5	5
Cancer	...	...		7	7
Epilepsy	...	...		1	1
Spinal Disease	...	...		1	1
Disease of Stomach	...	...		1	1
„ Liver	...	...		3	3
„ Bowels	...	...	2	1	3
„ Kidneys	...	...		3	3
„ Bladder	...	...		2	2
Debility	...	...	5		5
Premature Birth	...	...	2		2
Old Age	...	...		12	12
Convulsions	...	...	8		8
Uncertified	...	...	2		2
Inquests	...	...		8	8
			27	96	123

Total Death Rate for 1896, 11·36 per 1000.

*Mean Death Rate for past 24 years, 14·60 per 1000.*

**EDWARD GAYLOR,**

Medical Officer of Health.



## TABLE 2.

Birth Rates, Death Rates, and *Mean Death Rates*, with the  
Population of each Parish, estimated to December 31st, 1896.

PARISHES.	Population December 31, 1896.	Birth rate for 1896.	Mean Birth Rate for 23 years.	Death Rate for 1896.	Mean Death Rate for 24 years.
Alderwasley .....	376	23.93	25.47	10.63	13.58
Allestree .....	614	32.57	27.25	4.88	15.34
Ashleyhay .....	184	27.17	24.22	16.03	13.94
Crich .....	3358	31.56	32.54	14.29	16.39
Darley Abbey .....	948	24.27	* *	10.54	* *
Dethick, Lea, and Holloway .....	1135	27.31	26.59	14.09	16.41
Hazlewood .....	439	34.16	23.53	6.83	11.55
Idridgehay & Alton	318	28.03	22.59	6.28	11.32
Kedleston .....	107	9.34	24.89	.....	7.24
Kirk Langley .....	662	24.16	26.33	9.63	13.82
Mackworth .....	247	28.34	21.76	16.19	11.69
Markeaton .....	230	21.73	20.22	13.04	9.33
Pentrich .....	332	18.07	31.88	12.04	15.20
Quarndon .....	474	14.76	20.90	14.76	14.11
Ravensdale Park ...	51	.....	10.85	.....	5.39
Shottle & Postern ..	471	21.23	22.28	2.12	9.89
Turnditch .....	298	23.48	27.90	3.35	20.19
Weston Underwood	399	25.06	22.01	17.34	12.08
Widdley .....	180	16.06	22.01	5.05	15.14

\* Only 2 years.

Population, 10,823.

Birth Rate of Whole District for 1896, 26.79 per 1000

*Mean Birth Rate for 23 years past, 29.99 per 1000*

Death Rate for Whole District 1896, 11.36 per 1000

*Mean Death Rate for past 24 years, 14.60 per 1000*

EDWARD GAYLOR,

Medical Officer of Health.

### TABLE 3.

Births and Deaths in each separate Parish during the year 1896.

Area in Acres, 32,644.

Population, 10,823.

PARISHES.			Births.	Deaths.
Alderwasley	...	...	9	4
Allestree	...	...	20	3
Ashleyhay	...	...	5	3
Crich	...	...	106	48
Darley Abbey	...	...	23	10
Dethick, Lea, and Holloway	...	...	31	16
Hazlewood	...	...	15	3
Idridgehay	...	...	9	2
Kedleston	...	...	1	...
Kirk Langley	...	...	16	6
Mackworth	...	...	7	4
Markeaton	...	...	5	3
Pentrich	...	...	6	4
Quarndon	...	...	7	7
Raveonsdale Park	...	...	...	...
Shottle & Postern	...	...	10	1
Turnditch	...	...	7	1
Weston Underwood	...	...	10	7
Windley	...	...	3	1
			290	123

Total Birth Rate for 1896, 26·79 per 1000

Total Death Rate for 1896, 11·36

EDWARD GAYLOR,

Medical Officer of Health.



TABLE A—COUNTY OF DERBY.—Table of DEATHS during the year 1896, in the Rural Sanitary District of Belper, classified according to Diseases, Ages, and Localities.  
Area in Acres, 32,644. Population, 1891, 10,070. Estimated 1896, 10,823.

Deaths from all causes at subjoined Ages.										Mortality from specified causes, distinguishing Diseases of Children under Five years of age.																							
Names of Parishes adopted for the purpose of these Statistics; Public Institutions being shown as separate Localities. (Columns for Population, Births, and Cases of Infectious Disease are in Table B.)	At all ages.						Aged under 5 or over 5	(i)	DISEASES.																						Total.		
	(b)	(c)	(d)	(e)	(f)	(g)			(h)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21		22	
ALDERWASLEY ....	4	1				2	1	Under 5 upw'ds																						1	1	3	
ALLESTREE .....	3				1		2	Under 5 upw'ds																		1					2		
ASHLEYHAY .....	3				1	1	1	Under 5 upw'ds																		1						3	
CRICH .....	48	9	1	4	2	14	18	Under 5 upw'ds																						1	9	10	
DARLEY ABBEY ....	10	6		1	1	1	1	Under 5 upw'ds																							4	6	
DETHICK, LEA, and HOLLOWAY	16	3	1		2	5	5	Under 5 upw'ds																							1	4	4
HAZELWOOD .....	3							Under 5 upw'ds																								6	12
IDRIDGEHAY .....	2					1	2	Under 5 upw'ds																								1	3
KEDLESTON .....								Under 5 upw'ds																									2
KIRK LANGLEY ....	6		2		1	1	2	Under 5 upw'ds																							1	3	4
Totals..	95	19	4	5	8	26	33	Under 5 upw'ds																							18	23	72

# CONTINUATION OF TABLE A.

Names of Parishes adopted for the purpose of these Statistics; Public Institutions being shown as separate Localities. (Columns for Population, Births, and Cases of Infectious Disease are in Table B.)	Deaths from all causes at subjoined Ages.						Aged under 5 or over 5	Mortality from subjoined Causes, distinguishing Deaths of Children under Five years of age.																						Total.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	At all ages.	Under 1 year.	1 year and under 5	5 years and under 15	15 years and under 25	25 years and under 65		65 and upwards.	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	Smallpox.	Scarlatina.	Diphtheria.	Membr. Croup.	Typhus.	FEVERS.										Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhoea and Dysentery.	Rheumatic Fever.	Influenza.	Phthisis.	Bronchitis, Pneumonia, and Pleurisy.	Heart Disease.	Injuries.	All other Diseases.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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Brought over ..	95	19	4	5	8	26	33	Under 5	5 upw'ds							1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				</

EDWARD GAYLOR,  
Medical Officer of Health.

February 5th, 1897.



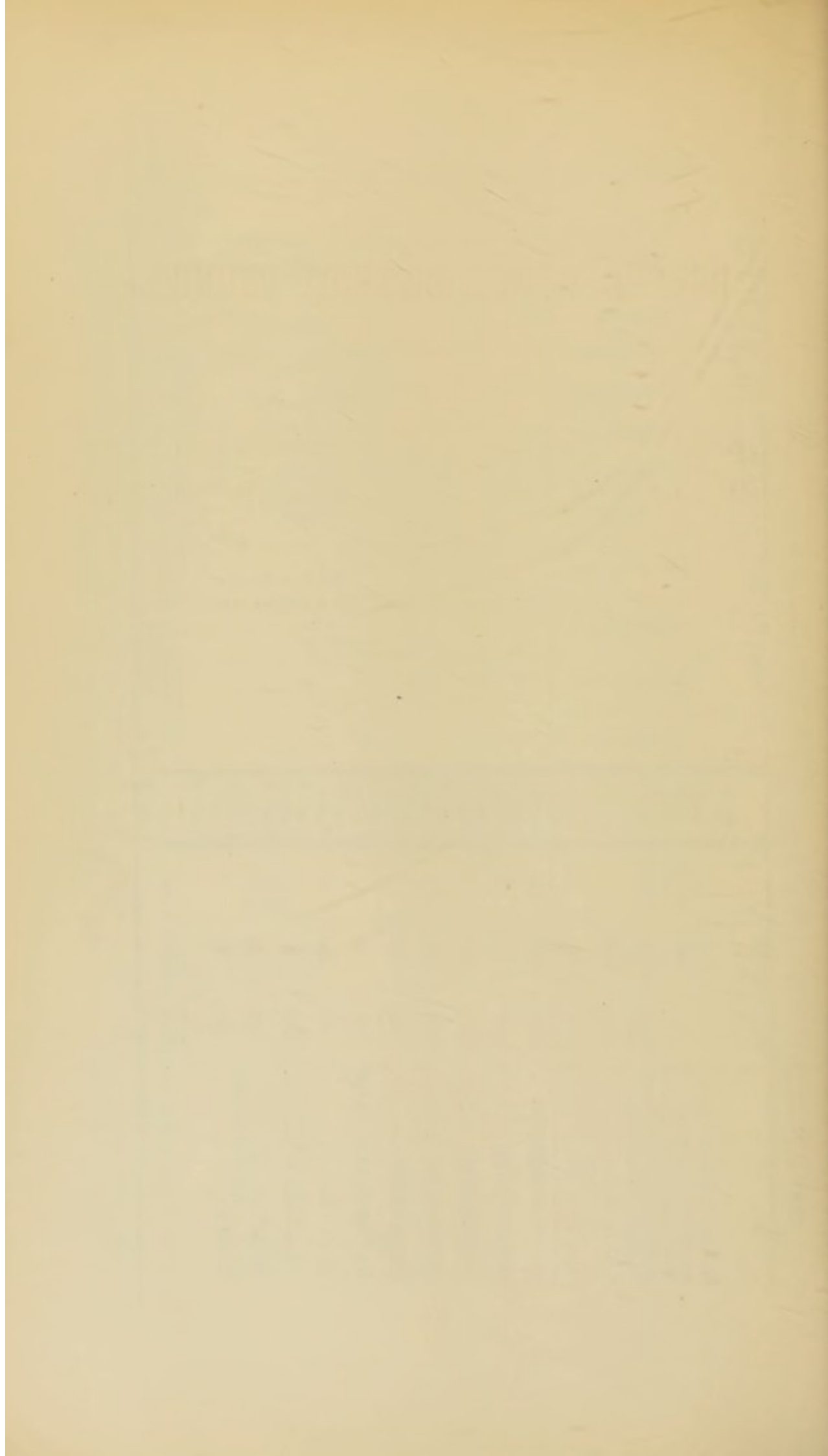
TABLE B—COUNTY OF DERBY.—Table of POPULATION, BIRTHS, & OF NEW CASES OF INFECTIOUS SICKNESS, coming to the knowledge of the Medical Officer of Health, during the year 1896, in the Rural Sanitary District of Belper, classified according to Diseases, Ages, and Localities.

Names of Parishes adopted for the purpose of these Statistics; Public Institutions being shown as separate Localities.	Population of all Ages.		Regis-tered Births.	Aged under 5 or over 5	New cases of Sickness in each locality, coming to the knowledge of the Medical Officer of Health.															
	Census, 1891.	Esti-mated to middle of 1896.																		
					(a)	(b)	(c)	(d)	(e)	1	2	3	4	5	6	7	8	9	10	11
						Smallpox.	Scarlatina.	Diphtheria.	Memb. Croup.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.				
ALDERWASLEY . . . .	337	374	9	Under 5 5 upw'ds			1													
ALLESTREE . . . . .	571	603	20	Under 5 5 upw'ds			2													
ASHLEYHAY . . . . .	173	174	5	Under 5 5 upw'ds			1													
CRICH . . . . .	3070	3330	106	Under 5 5 upw'ds			1	1			3									
DARLEY ABBEY . . . .	921	940	23	Under 5 5 upw'ds							1									
DETHICK, LEA, and HOLLOWAY	1058	1127	32	Under 5 5 upw'ds			2									2				
HAZELWOOD . . . . .	398	434	15	Under 5 5 upw'ds			1				1									
IDRIDGEHAY . . . . .	309	316	9	Under 5 5 upw'ds																
KEDLESTON . . . . .	102	106	1	Under 5 5 upw'ds																
KIRK LANGLEY . . . .	613	656	16	Under 5 5 upw'ds				1									1			
Totals . . . . .	7552	8060	236	Under 5 5 upw'ds			4	1			5						3			

# CONTINUATION OF TABLE B.

Names of Parishes adopted for the purpose of these Statistics; Public Institutions being shown as separate Localities.	Population of all Ages.		Registered Births.	Aged under 5 or over 5	New cases of Sickness in each locality, coming to the knowledge of the Medical Officer of Health.												
	Census, 1891.	Estimated to middle of 1896.			1	2	3	4	FEVERS.					10	11	12	13
									Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.				
(a)	(b)	(c)	(d)	(e)	Smallpox.	Scarlatina.	Diphtheria.	Membr. Group.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.		
Brought over ..	7552	8060	236	Under 5 5 upw'ds		4	1			5					3		
MACKWORTH .....	237	244	6	Under 5 5 upw'ds		4	1										
MARKEATON .....	217	228	5	Under 5 5 upw'ds		2											
PENTRICH .....	303	330	6	Under 5 5 upw'ds		2									1		
QUARNDON .....	451	474	7	Under 5 5 upw'ds		1											
RAVENSDALE PARK	51	51		Under 5 5 upw'ds													
SHOTTLE .....	432	464	10	Under 5 5 upw'ds		1									1		
TURNDITCH .....	283	295	7	Under 5 5 upw'ds													
WESTON	375	336	10	Under 5 5 upw'ds													
UNDERWOOD				Under 5 5 upw'ds		1											
WINDLEY .....	169	180	3	Under 5 5 upw'ds													
Totals..	10070	10722	290	Under 5 5 upw'ds		5 10	1 1			5					5		





# BELPER RURAL DISTRICT COUNCIL.

DIVISION B.

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## REPORT OF MEDICAL OFFICER OF HEALTH FOR THE YEAR ENDING DECEMBER 31st, 1896.

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J. ALLEN, Medical Officer of Health.

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*To the Belper Rural District Council.*

GENTLEMEN,

I have once more the honour of presenting to you the Annual Report dealing with the Vital Statistics and Hygiene of my District for the year ending December 31st, 1896. It is my twenty-fourth, as Medical Officer of Health, and the third presented to you as a Rural District Council.

In looking back over these twenty-four years, I can see much that has been left undone, but at the same time I can see many and valued improvements.

In 1895, there was an increase of Zymotic Deaths, compared with 1894, and an increase in the number of the notifications of these diseases.

In 1896 there has been an increase of 14 in the number notified, compared with 1895, and a decrease in the number of deaths.

In the ordinary classes there has been a considerable decrease in the number of deaths. Excluding the deaths from Zymotic diseases, the deaths in 1896 have been 40 less than in 1895, and the death rate for the year is therefore favourable.



The Infantile deaths are still, I am sorry to say, in excess, numbering one-third of the whole. Half of these Infantile deaths are registered in the class of diseases not named. Doubtless the cause of these deaths on the very threshold of life, is to be found in the ignorance of the mothers in the matter of nursing and feeding. There is however a slight improvement in the number of these Infantile deaths compared with the previous year.

May I again call the attention of the County Council to the desirability of having the attention of the Mothers called to this very important matter, by the Lecturers sent out by that Authority. A little simple instruction in the matters of Infantile nurture and feeding, would I am sure be attended with good results, and in a short time reduce the proportion of these Infantile deaths.

The Isolation Hospital is still being *talked* about. I would that I could hear of the building being commenced. In the cottages of the poor it is an absolute impossibility in 75 per cent. of the cases of Infectious Diseases to isolate the sick, and when recovery or death takes place, the difficulties of proper disinfection of rooms and bedding are immense. I do hope therefore that the year 1897 will see this necessary work commenced, if not completed.

During the year, I have attended with one exception, all your regular meetings, and have presented reports on my regular routine work as your Medical Officer.

A very useful thing was inaugurated at the end of 1895 by your Clerk, viz.:—that of having the Minutes of these meetings printed and circulated among the Councillors and Officers. These minutes have been very useful to me, as I have enabled by their perusal to take in at a glance the work of the year.

I will with these prefatory remarks now pass on to the consideration of the Vital Statistics of the district as a whole.

The total number of deaths registered in 1896 is 152. They were recorded in the months as follows—

January	.....	11
February	.....	8
March	.....	18
April	.....	14
May	.....	15
June	.....	8

July	.....	18
August	.....	10
September	.....	12
October	.....	10
November	.....	10
December	.....	18
		<hr/>
		152
		<hr/>

The ages at which death took place are classified into the following periods—

1st period	under 1 year.
2nd	„ between 1 and 5 years.
3rd	„ „ 5 and 15 years.
4th	„ „ 15 and 25 years.
5th	„ „ 25 and 65 years.
6th	„ those who lived over 65 years.

Of these 152 deaths,

37	occurred in 1st period
15	„ 2nd „
7	„ 3rd „
10	„ 4th „
41	„ 5th „
42	„ 6th „

Of the whole number of these 152 deaths, 17 were caused by Zymotic diseases.

Of these 17 deaths, 10 were caused by those diseases spread more or less by personal contact, and 7 from diseases spread and fostered more or less by insanitary local conditions.

I will at this stage just glance at the Zymotic history of the District for 1896.

*Small Pox.*—So far as my knowledge extends, the district has been quite free from this disease. Let me however remind the Council that Vaccination, the only real antidote to this terrible disease, is, and has been for more than a year virtually in abeyance. Should one case get imported into the district, the disease will find suitable ground, and we may have an epidemic in our midst, which like the recent one in Gloucester will entail painful and costly consequences.



*Measles.*—This disease, is not, as you are aware, scheduled for notification, and therefore your Medical Officers have to rely upon private information when it appears. It has been very prevalent in my district during the last few months of the year, and was of so a virulent a type at Mapperley, that I found it necessary to close the schools for a month. One death from this disease was registered in this village at the end of the year, and several more have occurred since.

*Scarlet Fever.*—This disease has been present in the district more or less during the whole of the year, and cases have cropped up in almost every village and township. I received notification of 34 cases, but fortunately none proved fatal.

*Diphtheria.*—This disease has been more prevalent in the district during the past year, than I have ever known it before. Altogether I received notification of 18 cases, chiefly in Denby and its neighbourhood. It was not confined to one locality, but cases occurred all over the parish. In many of the cases the membrane was examined in the County Laboratory, and the disease was pronounced to be true Diphtheria. All the cases were treated with antitoxin, and it is gratifying to be able to state that only three deaths were registered, and these cases were not seen early. This is a lower rate of mortality than in the days before the Treatment was discovered.

*Membranous Croup.*—I did not receive any notification of this disease during the year, although three deaths have been registered.

*Whooping Cough.*—This disease is not scheduled for Notification. It has been prevalent during the year, and three deaths were registered at South Wingfield.

*Typhoid Fever.*—Five cases of this disease have been notified, viz.: one at Denby, one at Horsley Woodhouse, one at Kilbourne, one at Milford, and one at South Wingfield. The case at Denby proved fatal.

*Diarrhoea.*—Two deaths were registered from this disease, viz.: one at Denby, and one at South Wingfield. Sporadic cases have come under my notice, but the disease has not assumed an epidemic character.

*Erysipelas*.—Three cases have been notified ; all of them occurred at the end of the year, the result of being exposed to cold winds. None of them ended fatally, and as I have said before, that for all practical purposes this disease may well be left out of the schedule.

*Rheumatic Fever*.—One fatal case was registered at Duffield that of a child under 5 years.

*Puerperal Fever*.—Two deaths were registered, viz. : one at Duffield and one at Mapperley.

*Pyæmia*.—One death was registered at Smalley.

The Zymotic death rate for the district for this year is 1·3 per 1000. Last year it reached 2·1

The causes of the remaining 135 deaths were

Phthisis	...	...	11
Respiratory diseases	...	...	31
Heart diseases	...	...	17
Violent deaths	...	...	9
Diseases not classified	...	...	67

The death rate of the district for 1896 is 12·2 per 1000, which is very favourable. The mean death rate is 15·1 per 1000

Coming to the Births there has been a decrease in 1896 compared with 1895, of 31.

213 Males and 188 Females were born in 1896.

This would give a birth rate of 32·2 per 1000.

I will now consider these vital statistics separately in connection with each parish or township in my district.

## DENBY.

Population at Census of 1891, 1533

Estimated population end of 1895, 1710



Births in 1896—Males 34 ; Females 33 ; Total 67.

Birth rate for 1896, 39·per 1000

Estimated population end of 1896, 1752

Deaths at all ages, 25 ; of these

9 died in 1st period			
3	„	2nd	„
1	„	3rd	„
1	„	4th	„
3	„	5th	„
8	„	6th	„

Of these deaths 6 were registered in the Zymotic classes, viz. : Diphtheria, 1 ; Membranous Croup, 3 ; Typhoid Fever, 1 ; Diarrhoea, 1.

The causes of the remaining 19 deaths were

Phthisis	.....	3
Respiratory diseases	.....	5
Heart diseases	.....	3
Diseases not classified		8

The Infantile mortality is not so favourable this year compared with 1895 ; as will be seen nearly half the deaths were those of children under 5 years.

The death rate for the year is 14 per 1000, and the mean rate is 13·4 per 1000.

I have visited this village several times during the year, chiefly for the purpose of enquiring into cases of Infectious Diseases. 11 cases of Diphtheria were notified in this village alone. The cause seemed to be climatic, combined with the insanitary surroundings of cottages where there are no proper sewers.

As was stated in my last Report, a special Committee was appointed to visit and inspect this village, more especially in connection with its Sewage disposal. I was present with them, and eventually a report was issued in which the Committee finally decided, that, after viewing the whole of the village, they could not recommend a Sewerage Scheme for so scattered a place, but that the Inspector of Nuisances was to give notice to all owners of property to have properly constructed cesspools for the reception of the Sewage.

I may say that this arrangement was in force when the Committee visited the place.

While agreeing with the Committee that Denby is a very difficult place to deal with so far as a comprehensive system of main drainage is concerned, yet there are centres of population at Denby Common, in the neighbourhood of the Church, and at the Smithy Houses, which could be drained in an efficient manner. At the Denby Bottles and Smithy Houses there are 60 or 70 houses which drain direct into the Brook, and the same thing occurs at Bottle Brook, where 10 houses drain into the same Water course. The Urban District Council of Ripley have constructed Sewage Works and provided a Sewage Farm to purify the sewage from Marehay; but if this brook is to be contaminated lower down, the money expended at Ripley has been virtually thrown away.

I still hope that some combined efforts between the Rural District Council and the Owners of these properties will be made to withdraw this Sewerage matter from the brook.

### DUFFIELD.

This includes the whole of the Hamlet of Makeney, and part of the Township of Milford.

Population at Census of 1891, 2704

Estimated population end of 1895, 2911

Births in 1896—Males, 39; Females, 32; Total, 71.

Birth Rate for 1896, 24.3 per 1000

Estimated population end of 1896, 2939

Deaths at all ages, 43; of these

6 died in 1st period			
5	"	2nd	"
1	"	3rd	"
4	"	4th	"
13	"	5th	"
14	"	6th	"

In the Zymotic classes 2 deaths were registered, viz.: Rheumatic Fever, 1; Puerperal Fever, 1.



The causes of the remaining 41 deaths were

Phthisis	.....	4
Respiratory Diseases	.....	9
Heart Diseases	.....	4
Violent Deaths	.....	2
Other diseases not classified		22

The violent deaths were a case of a child scalded, and the other a case of fractured skull, the result of a carriage accident.

The death rate for the year is 14·6 per 1000, and the mean rate 15·1 per 1000

Thirty-one cases of Infectious diseases were notified during the year, viz.: Scarlet Fever 27; Typhoid Fever 1; Puerperal Fever 2; Erysipelas 1.

These cases were all investigated at the time, and reported to the Council at its monthly meeting. They were cropping up by twos and threes all through the year; the first case having been notified in February and the last in December.

It was found that several cases of Scarlet Fever were contracted from children who had suffered from the disease in a mild form, who had no medical attendant, and who were allowed to go out and mix with other children, while they were in the stage of desquamation. The Council, therefore on my recommendation had some bills printed and posted in the district, warning Parents of the penalties incurred for this exposure, and stating that proceedings would be taken against offenders in this respect in the future.

Nothing beyond the investigation of these cases has occurred during the year, needing any report.

It is satisfactory to note that the death rate for 1896 is lower than the one recorded for 1895.

Steps are in progress for the improvement of the main drainage, and during the coming year the area of this portion of my district will be made less. An order of the County Council, as I have been informed, will come into operation in April, when that portion of Milford hitherto added to Duffield will become a separate parish.

**HOLBROOK.**

Population of Census of 1891, 1094

Estimated population end of 1895, 1172

Births in 1896—Males, 15 ; Females 12 ; Total 27.

Birth rate for 1896, 23·1 per 1000

Estimated population end of 1896, 1192

Deaths at all ages, 7 ; of these

2 died in 1st period

2     "     3rd     "

1     "     5th     "

2     "     6th     "

No death was registered from Zymotic disease, and the causes are thus classified—

Respiratory diseases	.....	2
Heart diseases	.....	2
Other diseases not named	.....	3

The death rate for the year is only 5·8 per 1000. The mean rate is 14·6 per 1000

There was no death from Zymotic disease in 1895

Two cases of Infectious diseases were notified during the year, viz. : Erysipelas 1, Puerperal Fever, 1.

I have been through this village two or three times during the year, but found nothing but the ordinary every-day nuisances which were removed by notice from the Inspector.

This village was included in the places to be visited and examined by the Special Committee. As a result of their inspection they reported that a main sewer was needed on the Moor, but that there would be engineering difficulties in providing a main drain for the lower part of the village, inasmuch as some of the houses were built below the level of the road.

As I have said in former reports, Holbrook ought to be one of the healthiest places in the County. It possesses many natural advantages, and one of these is the facility it enjoys of almost draining itself.

Sewage matter finds its way on to the soil, and if only the owners of property would make proper drains and the occupiers use them when made, and not throw their soap suds and slops on the public highway, there would be a great improvement.



The Committee in their report do not mention anything about the Water supply. Since the waste water from the Spout was impounded, the supply has been much better, and I have had no complaints lately of there being any scarcity.

### HORSLEY.

Population at Census of 1891, 368

Estimated population end of 1895, 386

Births in 1896—Males, 6 ; Females, 5 ; Total, 11.

Birth rate for 1896, 28·4 per 1000

Estimated population end of 1896, 394

Deaths at all ages, 3 ; of these

2 died in 1st period

1 „ 5th „

No death was registered from Zymotic disease ; the causes were

Phthisis	.....	2
Disease not classified	.....	1

The death rate for the year is 7·6 per 1000 ; and the mean rate 13·1 per 1000

No case of Zymotic disease has been notified during the year.

I have been through this village two or three times during the year, but have had nothing to bring before the Council.

### HORSLEY WOODHOUSE.

Population at Census 1891, 934

Estimated population at end of 1895, 1009

Births in 1896—Males, 23 ; Females, 20 ; Total 43.

Birth rate for 1896, 42·5 per 1000

Estimated population end of 1896, 1040.

Deaths at all ages, 12 : of these

2	died in 1st period
3	„ 2nd „
1	„ 3rd „
4	„ 5th „
2	„ 6th „

One death was registered from Zymotic disease, viz. : Diphtheria.

The causes of the remaining deaths were

Phthisis	.....	1
Respiratory Diseases	.....	2
Heart Disease	.....	1
Diseases not classified	.....	7

The death rate for the year is 11·5 per 1000 ; and the mean rate is 18·1 per 1000. This mean death rate has been raised above its normal level, by the abnormally high death rate for 1895, which reached 25·7 per 1000.

Two cases of Zymotic disease were notified, viz. : one from Diphtheria which proved fatal, and the other, Typhoid Fever.

In June I enquired into the fatal case of Diphtheria, and traced its cause to the foul state of a cesspool close to the house. It is not often that the people of this village complain of smells, but in this case the mother of the child stated that the stench from this cesspool, containing the sewage of 4 or 5 houses, was quite unbearable.

I attended the meeting of the Special Committee, and was glad to find that they agreed with me as to the want of main drainage. This has been a perennial complaint in my Reports. In their Report they say that the drainage of this village is in a bad state, and suggest that a competent engineer be engaged to report on necessary improvements, but they hope to avoid making sewers until there is a water supply to flush them.

I am glad to be able to say that there is every possibility of a good Water Supply being provided for this and neighbouring villages. The supply will come from the sandstone grit in the Parish of Smalley, which is outside the bed of coal known as the Kilbourne seam. No water was found in the trial bore-hole until a depth of 360 feet was reached, and then water flowed from this bore-hole at the rate of 25,000 gallons per day.



The water, on analysis by Dr. Frankland, was found to be of good quality, and of very moderate hardness. If the supply is equal to the demand, the inhabitants of this and the neighbouring villages will have a great boon conferred on them.

### KILBOURNE.

Population at Census of 1891, 1427

Estimated population end of 1895, 1577

Births in 1896—Males, 27 ; Females 31 ; Total 58.

Birth rate for 1896, 36·7 per 1000

Estimated population end of 1896, 1613

Deaths at all ages, 22 ; of these

7 died in 1st period			
1	„	2nd	„
2	„	3rd	„
6	„	5th	„
6	„	6th	„

One death was registered from Zymotic disease, viz. :—  
Diphtheria.

The causes of the remaining deaths were

Phthisis	.....	1
Respiratory diseases	.....	4
Heart diseases	.....	7
Diseases not classified	.....	9

The death rate for the year is 13·6, and the mean rate 13·8 per 1000

7 cases of Zymotic disease were notified during the year, viz. : 5 of Diphtheria, 1 of Scarlet Fever and 1 of Typhoid Fever.

I have visited this township several times during the year and enquired into the cases of Infectious diseases. It was a satisfaction to find that out of the 5 cases of Diphtheria only one proved fatal, and this case was not seen early enough for the antitoxin treatment to be effective. In all the cases in which this treatment was commenced early, the patients did well.

In my last report I stated that the main drainage of this village had still to be considered, and I make the same remark now. In this opinion I am glad to say that the Special Committee concur. The outfall of the drains from the houses at Rosen Green is still into the Brook, and the smell is most offensive to passers-by in the warm summer months when the weather is dry. The Committee recommend that this nuisance should be abated at once. At Lower Kilbourne the same condition exists, all the Sewage going into the Brook.

The drainage too, of the middle part of the village still follows its old course and the Sewage finds its way into the Brook, at the junction of the road with the main road to Derby. There should be no great difficulty in providing this village with proper drainage, and it is to be hoped that when the Water Supply is obtained, the Council will take this matter in hand.

### MAPPERLEY.

Population at Census of 1891, 531

Estimated population end of 1895, 571

Births in 1896—Males, 15 ; Females 12 ; Total, 27.

Birth rate for 1896, 47 per 1000

Estimated population end of 1896, 595

Deaths at all ages, 3 ; of these

2 died in 1st period

1 „ 4th „

Two deaths were from Zymotic disease, viz. : 1 from Measles and 1 from Puerperal Fever.

The cause of the other death was in the class of those not named.

The death rate for the year is 5·2 and the mean rate 11·78 per 1000

I have not received any notification of Infectious diseases during the year, and did not hear of the case of Puerperal Fever until I saw it in the monthly returns of deaths.

There was a small epidemic of Measles just at the close of the year. On visiting the place and making enquiries I found that out of an average attendance of 112 children, only 61 had put



in an appearance, the cause being Measles ; cases of which were spread all over the village. Under these circumstances I had no hesitation in recommending that the Infant school should be closed for a month after the Christmas holidays.

Many sanitary improvements have been effected in this village during the last few years, and the inhabitants are especially grateful for their improved Water Supply.

### MORLEY.

Population at Census of 1891, 298  
 Estimated population end of 1895, 311  
 Births in 1896—Males, 3 ; Females, 4 ; Total, 7  
 Birth rate, 22·4 per 100  
 Estimated population end of 1896, 315  
 Deaths at all ages, 3 ; of these  
     1 died in 2nd period  
     1    "   4th    "  
     1    "   5th    "

One of these deaths was caused by Respiratory disease, and the other two were the result of accidents ; one man being thrown from a carriage, and the other received fatal injuries in a stone quarry.

The death rate for the year is 9·6, and the mean rate 17 per 1000.

I have received no notification of Infectious disease from this village. I have been there once during the year, but found nothing needing any notice in an Annual Report.

### SMALLEY.

Population at Census of 1891, 924  
 Estimated population end of 1895, 1042  
 Estimated population end of 1896, 1066  
 Births in 1896—Males, 24 ; Females, 14 ; Total, 38  
 Birth rate for 1896, 36·4 per 1000  
 Deaths at all ages, 14 ; of these  
     2 died in 1st period  
     2    "   4th    "  
     6    "   5th    "  
     4    "   6th    "

One death was registered from Pyæmia, and the causes of the remaining 13 were

Respiratory diseases	.....	5
Diseases not classified	.....	8

The death rate for the year is 13·1, and the mean rate 14·5 per 1000

With the exception of a case of Scarlet Fever notified on January 1st, 1896, this village has been quite free from Zymotic disease during the year. I am pleased to be able to state that plans are in progress for supplying this village with pure and wholesome water. This will be a very great boon, as in dry summers much inconvenience has been felt, and some of its people have had to go some distance for this necessity of life.

## SOUTH WINGFIELD.

Population at Census of 1891, 1319

Estimated population end of 1895, 1459

Births in 1896—Males, 27; Females, 25; Total, 52.

Birth rate for 1896, 35·6 per 1000

Estimated population end of 1896, 1491

Deaths at all ages, 20; of these

5 died in 1st period		
2	„	2nd „
1	„	4th „
6	„	5th „
6	„	6th „

In the Zymotic classes, 4 deaths were registered, viz.: from Whooping Cough, 3; Diarrhoea, 1.

The causes of the remaining 16 deaths were

Respiratory diseases	.....	3
Violent deaths	.....	5
Diseases not named	.....	8

One of the violent deaths was from drowning, one was the case of a man found dead on the railway, a train having passed over him, and the others were the results of carriage accidents.



The death rate for the year is 13·2, and the mean rate is 17·2 per 1000.

This village has been fairly free from Zymotic disease during the year. I have only received 3 notifications, two being Scarlet Fever and one Typhoid Fever. One of the cases of Scarlet Fever occurred in a gentleman's house, whither it was brought in the milk from a farm house, half-a-mile away, where a case of Scarlet Fever had been not recognised, and no medical man had been called in. One is often puzzled to discover the cause of this particular disease, and it is these cases which are unrecognised, which give so much trouble.

The case of Typhoid Fever occurred on the eastern bank of the river Amber. All the cases hitherto reported since the disease first commenced were on the western bank. In investigating the cause of this Fever, I found that six adults were occupying two small bedrooms, and when I suggested to the wife of the occupier that she should obtain a house with more bedrooms, she informed me that there were no houses in the neighbourhood with more than two bedrooms, and with few exceptions, this rule holds.

The only Water supply for the house was from the Amber, a sewage polluted stream, and it was this water which I considered the factor in causing the Typhoid Fever. This fever has been endemic in this village for 4 or 5 years, and it is therefore satisfactory so far to find only one case this year, and that case not in the village itself.

The difficulty of obtaining a pure and wholesome Water Supply, seems as great, if not greater than ever. The scheme from which so much was expected has, I fear, come to grief, and what the Council will do now, I am not in a position to say. It is however, an absolute necessity that something should be done to provide a supply.

This, Gentlemen, ends what I have to say on the Vital Statistics and the work of the year in the District, in detail. As to my general work, you are kept regularly posted up by the monthly reports, and you may therefore consider that this Annual Report is really these twelve reports condensed into one.

Before closing, I should like to call your attention to one or two wanted improvements.



I. The Infectious Hospital is, in my opinion, of the first importance. In my last Report I said how very pleased I should be to attend the ceremony of laying the foundation-stone. I can only say that after the lapse of another year I am in the same position. For twenty years I have now been calling the Authority's attention to this great need, but the goal seems still a good way off.

II. DRAINAGE. As will be gathered from the body of the Report, I am still of opinion that something could be done to improve the main drainage at Denby. The Special Committee have in their report suggested that an Engineer should be called in both for Holbrook and Horsley Woodhouse, and surely Kilbourne should no longer be allowed to get rid of its sewage by polluting the Water course, and using this Brook as a Sewage Carrier.

An Engineer has been called in for Duffield, and something will shortly be done to improve the drainage of that township.

III. The Water Supply of Smalley, will, I hope soon be improved, and the same remark will apply to South Wingfield.

I have not had occasion to take any action in any case of selling bad meat or fish.

So far as my knowledge extends, no offensive trade is carried on in my district.

In conclusion I wish to express my thanks to the Council for the cordial assistance which I have received in carrying out my routine work. These duties become a pleasure, when you know that your endeavours to improve the Hygienic condition of your district is appreciated by those in authority, and may this cordial relationship ever continue.

I append the usual tables, and remain

Your obedient servant,

**J. ALLEN,**

Medical Officer of Health.

*Ripley, Derby,  
March 1st, 1897.*



**TABLE 1.****District B of the Belper Rural District Council**

(Including the parish of South Wingfield).

Area in Acres .....	15,487
Population at Census of 1891 .....	11,132
Estimated population at end of 1896.....	12,397

**RETURN OF CAUSES OF DEATH FOR THE YEAR ENDING  
DECEMBER 31st, 1896.**

DISEASE.				Under 5 years.	Above 5 years
Measles	...	...	...	1	0
Diphtheria	...	...	...	1	2
Croup	...	...	...	3	0
Whooping Cough	...	...	...	3	0
Typhoid Fever	...	...	...	0	1
Diarrhoea	...	...	...	1	1
Rheumatic Fever	...	...	...	1	0
Pyaemia	...	...	...	0	1
Puerperal Fever	...	...	...	0	2
Phthisis	...	...	...	1	10
Respiratory Diseases	...	...	...	12	19
Heart Diseases	...	...	...	1	16
Violent Deaths	...	...	...	2	7
Diseases not classified	...	...	...	26	41
TOTALS	...	...	...	52	100

Death rate of the District for 1896, 12·2.

Mean Death Rate 15·1 per 1000.

## TABLE II.

### BIRTHS IN DISTRICT IN 1896.

Males	...	...	...	213
Females	...	...	...	188
Total	...	...	...	401

Birth Rate for 1896, 32·2 per 1000.

## TABLE III.

### BIRTH RATE, DEATH RATE, MEAN DEATH RATE, AND ESTIMATED POPULATION OF EACH SEPARATE PARISH OR TOWNSHIP AT THE END OF 1896.

PLACE.	Estim'd popul'n.	Birth Rate.	Death Rate.	Mean Death Rate.
Denby	1752	39	14	13·4
Duffield	2939	24·3	14·6	15·1
Holbrook	1192	23·1	5·8	14·6
Horsley	394	28·4	7·6	13·1
Horsley Woodhouse	1040	42·5	11·5	18·1
Kilbourne	1613	36·7	13·6	13·8
Mapperley	595	22·4	5·2	11·78
Morley	315	22·4	9·6	17
Smalley	1066	36·4	13·1	14·5
South Wingfield	1491	35·6	13·2	17·2



THE UNIVERSITY OF CHICAGO

IN THE SENATE OF THE UNIVERSITY OF CHICAGO  
JANUARY 1900

REPORT OF THE COMMISSIONERS OF THE BOARD OF EXAMINERS  
ON THE EXAMINATIONS OF THE SENIOR CLASS  
IN THE DEPARTMENT OF CHEMISTRY  
FOR THE DEGREE OF DOCTOR OF PHILOSOPHY  
IN THE YEAR 1899

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IN THE YEAR 1899

## **To the Chairman and Members of the Belper Rural District Council.**

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GENTLEMEN,

I here have much pleasure in submitting to you my Twenty-Fourth Annual Report for the year ending December, 1896.

I have to report that during the past year I have made 290 Visits and Inspections in the Rural Districts under the Authority of this Council.

I have inspected 2,173 Dwelling Houses and Premises, and reported 950 Nuisances.

I have superintended the erection of 37 Dwelling Houses, 24 Kitchens, 7 Dairies, 35 Coal Houses, 17 W.C's., 19 Dry Earth Closets with moveable pans, 63 Dry Closets, 87 Receptacles, 8 Ashpits, 2 Stables, 1 Coach House, 4 Pig-cotes, 2 Cow-houses, 3 Cart Sheds, 2 Store Sheds, 3 Butcher's Shops, and 1 Stockinger's Shop.

95 Drains have been connected with Dwelling-houses and Premises—29 empty into Main Sewers, 56 into Cesspools, and 10 for Irrigation Purposes. 27 Ventilation Shafts have been connected with the above Drains.

I have served 301 Official and 541 Formal Notices on Owners, Agents, and Occupiers of premises, causing 871 Nuisances to be abated.

### **Structural Alterations.**

The following Alterations to Dwelling-houses, Premises, &c., have been carried out during the year, viz.: 7 Faulty Roofs to Dwelling-houses, 8 Defective W.C's., 6 Dry Earth Closets with moveable pans, 24 Dry Closets with fixed receptacles, 130 Common Privies, 124 Privy Cesspools, 39 Ashpits; 112 Sink Drains have been cut off from the dwellings, and 151 Defective Drain Traps have been replaced.



Seven Dirty Dwellings have been reported, 2 cases of Over-crowding, and 9 Pig-cotes kept so as to be a nuisance injurious to health, also 179 Foul Deposits.

### **Dairies' and Cowsheds' Acts.**

I have made 20 inspections under the above Acts, and 10 under the Canal Boats' Act.

### **Infectious Diseases.**

I have reported 88 cases of Infectious Diseases, viz. :—Scarlet Fever, 52 ; Typhoid, 14 ; Diphtheria, 16 ; Erysipelas, 3 ; Puerperal, 3 ; Total, 88. Two School Rooms and 59 Premises have been Disinfected.

### **Water Supply.**

During the year 5 Official and 7 Formal Notices have been served on Owners and Agents of property, for the better protection and cleaning out of wells.

20 Wells have been sunk, and 18 Pumps put down.

I have submitted to the County Analyst 16 Samples of Water—11 Samples proved to be unfit for drinking purposes, 2 doubtful, and 3 fit for use ; Total, 16.

I have attended to the Public Pumps situated in the Parishes of South Wingfield, Holbrook, and Kilburn, and attended 13 Sanitary Committee Meetings.

I am, Gentlemen,

Your obedient Servant,

JOHN CLEXTON,

Inspector of Nuisances and Buildings.

*Belper, March, 1897.*

