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Contributors

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To The Mayor, Aldermen and Burgesses
The Borough of Ilkeston.

Gentlemen.

It again becomes my duty to present my Annual Report on the health and sanitary condition of the Borough of Ilkeston during the year 1893, and in doing so, I would repeat what I stated in the Report for the previous year with reference to the population.

The only time when we get a correct population to work from in estimating the birthrate and death rate is in the census year. During the intercensal periods the population has to be estimated, and our calculations are liable to errors of excess or deficiency more or less serious.

The difficulties in making a correct estimate of the population are great, for we have to take into account the emigration and immigration out of, and into the district in addition to the natural increase due to excess of births ~~or~~ over deaths. I have estimated the population to be 20,930 at Midsummer 1893.

Deaths.

During the year, 358 deaths were registered in your district against 355 in 1892 and 417 in 1891. Of these 358 deaths, 206 were males and 152 females. 301 were certified and 35 uncertified. 22 Inquests were held. It will thus be seen that the deathrate amounted to 17.1 per 1000 per annum, against 17.2 in the previous year. In the first quarter of the year, there were 72 deaths, 44 males and 28 females. 37 were under and 35 over 5 years of age. 56 were certified, 11 were uncertified, and 5 inquests were held. During the same period, 115 male children and 126 female children were born.

During the second quarter, 90 ~~births~~^{Deaths} occurred, 50 males and 40 females, 46 were under 5 and 44 over 5 years of age. 72 were certified, 10 uncertified and 8 inquests were held. During the same period 246 births were registered of which 125 were males and 121 females. In the third quarter, 102 deaths were registered, 57

To the Mayor, Aldermen and Burgesses of
The Borough of Leicester.

Gentlemen.

It again becomes my duty to present my
annual report on the health and sanitary condition of the
Borough of Leicester during the year 1891, and in doing
so, I would repeat what I stated in the report for the
previous year with reference to the population.
The only time when we get a correct report other to words from
misestimating the birthrate and deathrate is in the census
year. During the intervals periods the population has
to be estimated, and our calculations are liable to error
of more or less than a few per cent.
The difficulties in making a correct estimate of the popula-
tion are great, for we have to take into account the emigra-
tion and immigration out of, and into the district in ques-
tion to the natural increase due to excess of births or im-
balances. I have estimated the population to be 20,930 at
Leicester 1891.

Deaths.

During the year 358 deaths were registered in your
district against 355 in 1890 and 417 in 1891. Of these
358 deaths, 200 were males and 158 females, 301 were
certified and 57 uncertified. 22 inquests were held.
It will thus be seen that the deathrate amounted to 17.1
per 1000 for the year, against 17.2 in the previous year.
In the first quarter of the year there were 73 deaths, 44
males and 29 females. 37 were under and 37 over 5
years of age. 20 were certified, 11 were uncertified, and
5 inquests were held. During the same period, 115 male
children and 125 female children were born.

During the second quarter, 90 deaths occurred, 50 males
and 40 females, 46 were under 5 and 44 over 5 years
of age. 72 were certified, 18 were uncertified and 8 inquests
were held. During the same period 210 births were
registered of which 125 were males and 121 females.
In the third quarter, 102 deaths were registered, 57

males and 45 females. 70 were under and 32 over 5 years of age. 93 were certified, 6 uncertified and 3 inquests were held. 216 were registered in this quarter, of which 109 were males and 107 females.

In the fourth quarter, 94 deaths occurred, 55 under five and 39 over five years of age. 80 were certified, 8 uncertified and 6 inquests were held. During the same period 110 male and 86 female children were born.

—Infantile Mortality—

In former Annual Reports I have drawn your attention to this subject which I regard as one of the most important and serious in the whole field of Public Health. 160 children died during the year before attaining the age of 1 year, and 307 before reaching 5 years. This number (394) gives a percentage of 54.9 of the total number of deaths. Calculating the deaths of those under 1 year as a rate per 1,000 births, we find that it amounts to 174.9, against 166.8 in 1892 and 203.7 in 1891. The corresponding rate for England and Wales as a whole was 140, so that you see Ilkeston greatly exceeds the averages. I have pointed out in former reports the causes which in my opinion are mainly responsible for this excessively high infantile mortality. Want of cleanliness and wrong, insufficient or excessive feeding are among the most common causes of deaths of infants. The leaving of children at home in the care of those who are too young and thoughtless or careless with regard to the children is another common cause. The children become cross and peevish. They are then dosed and drugged with cordials, soothing syrups &c almost all of which contain opium or morphia and are therefore quite unfit for the use of young children. The children in time die by a slow process of poisoning, another condition which has a very prejudicial effect on the health of young children is the dampness of the house walls and of the soil round dwellings. The walls of all houses should have an efficient damp ^{proof} course below the floor level. The roofs, spouting and downpipes should be in good repair and the latter should not run direct into the sewers. Drains should be laid with a proper fall and it is most important that the joints should be thoroughly water tight. The yards should be covered with some impervious material such as

age. 73 were certified, 6 un-certified and 3 un-qualified under 10
210 were registered in this quarter, of which 109 were male
and 101 female.
In the fourth quarter, 74 deaths occurred, 65 under five and
39 over five years of age. 80 were certified, 8 un-certified and
6 un-qualified were total. During the same period 110 males and
80 female children were born.

Infantile Mortality

The former General Report I have drawn your attention
this subject which I regard as one of the most important and
serious in the whole field of Public Health. 100 children
during the year before attaining the age of 1 year, and 10
before reaching 5 years. This number (100) gives a percentage
of 0.4 of the total number of deaths. Calculating the
of these under 1 year as a rate per 1,000 births, we find the
it amounts to 17.4 against 16.8 in 1892 and 20.3 in 1891.
The corresponding rates for England and Wales as a whole
was 16.9, so that you see British rates are slightly more than the
age. I have pointed out in former reports the causes which
in my opinion are mainly responsible for this excessively
high infantile mortality. Death of children and many
infantile or excessive deaths are among the most common
causes of death of infants. The timing of children at the
in the case of those who are too young and thoughtless
careless with regard to their children is another common
cause. The children become weak and feeble. They are
then breast and brought with irritants, exciting eruptions
almost all of which contain poison or infection and are
therefore quite unfit for the use of young children.

The children in this city are also victims of poisoning,
another cause which has a very injurious effect on the
health of young children is the consumption of the food in
and of the various drinkings. The walls of all houses
should have an efficient disinfectant like the floor line
the roof of a house and the walls should be in good repair
and the water at night and day should be into the sewers. (Rain
should be kept with a special fast can is most important
that the joints should be thoroughly washed with light. The year
should be covered with some material such as

asphalte to carry off storm water, slops &c. quickly, and prevent them soaking into the ground and foundations. This chronic state of dampness causes Bronchitis, Catarrh, Rheumatism, neuralgia and Phthisis, and may possibly have some effect in causing or at least predisposing to Diphtheria and other throat affections. One other very important cause to which I have frequently alluded is undoubtedly gross ignorance and carelessness on the part of parents with regard to infectious diseases.

An idea prevails, a fatalistic idea I have called it, that children must take these infectious diseases sometime during their lives, and that the sooner they have them the better. This idea leads parents often intentionally and deliberately to expose their children to infectious diseases for the express purpose of giving them the disease, forgetful or ignorant of the fact that infectious diseases are the more fatal and the more severe in their course and complications the younger the patients. If the taking of these diseases can be avoided, and I maintain that it can be, I contend that it is criminal to so expose any child to any infectious disease. If the child takes any such disease when it has reached such an age as to be able to resist the disease its chances of quick recovery are very much increased. For the purpose of dispelling this ignorance and carelessness, I would suggest the holding of classes on Sanitation and Nursing under the auspices of the County Council or the St. John Ambulance Association*. You would be doing meritorious work. Gentlemen, by using your utmost exertions to remove this carelessness, and thereby minimise this terrible wholesale slaughter of the innocents. A certain number of deaths of infants and young children is bound to occur each year, but my contention is that many of those deaths which occur are preventible, and that therefore some one is responsible, morally though not legally, for this wanton waste of infant lives. To induce all who have the care of children to realise the responsibility which rests upon them is work of vast importance which you, Gentlemen, ought to take up in real earnest. It is work which would in time bring its own reward.

* I held one such class during the year which was most successful.

the fact of parents with regard to infectious diseases.
The other parents, or pediatricians, who I have called it, that child
must have these infectious diseases sometimes during their lives
and that the mother may have them the better. This is the
parents often intentionally and deliberately to expose their
children to infectious diseases for the purpose of giving
them the disease, for the purpose of the fact that infectious
diseases are the most fatal and the more severe in their course
and complications the young in the family. If the tendency of
these diseases can be avoided, and I mean that it can be
I understand that it is impossible to do so except by the use of
infectious diseases. If the child takes any infectious disease
it has reached such a stage as to be able to resist the disease
chances of quick recovery are very much increased. For the
purpose of hastening this recovery and cure, I
would suggest the taking of doses of diphtheria and
thumping under the supervision of the County Council or the
John Lubbock Association. You would be doing more
overwork. I understand, if you have your school children
remove the children, and thereby minimize this kind
into large numbers of the innocents. A certain number
of the infants in the young children is bound to occur
again, but my impression is that many of these children
occure are preventable, and that therefore some one is responsible,
sido, morally, though not legally, for the removal of these
infant lives. To induce all who have the care of children
to realize the responsibility which rests upon them is more
of great importance than I say, gentlemen, ought to have
up in real earnest. It is not until we have in time doing
the own reward.

These numbered 899 during 1893 compared with 905 in 1892. The nett natural increase was consequently 541. The increase due to immigration and the decrease due to emigration are extremely difficult to estimate. Of the 899 births 459 were males and 440 females. The above facts might be summarized as follows, dividing the year into quarters.

Quarter Ending	Deaths										Certification			Births	
	Total	70	5	under 1 year	under 5	15	25	60	over 60	Cert- ified	uncert- ified	Inquest	Male	Female	
31 Mar 93	42	44	28	31	6	3	3	12	14	56	11	5	115	126	
30 June 93	90	50	40	39	7	4	3	19	18	42	10	8	125	121	
30 Sept 93	102	54	45	60	10	8	4	11	9	93	6	3	109	107	
31 Dec 93	94	55	39	30	12	4	4	20	24	80	8	6	110	86	
Totals	358	206	152	160	35	19	14	62	68	301	35	22	459	440	

Zymotic Diseases.

The seven principal Zymotic diseases caused 33 deaths

Smallpox	0
Scarlet fever	4
Measles	0
Diphtheria	2
Whooping cough	1
Fever (Enteric &c)	9
Diarrhoea	14

Total 33

Of these 13 occurred in Ilkeston 18 in Cotmanhay and 2 in Hallam Fields. In the early part of the year, I had occasion to recommend the closing of the school at Hallam Fields on account of a serious outbreak of Measles. Later in the year I again recommended the closing of the same school on account of a widespread outbreak of Scarlet Fever. In reference to these two outbreaks I furnished the Health Committee, with the following special report, a deputation of residents at Hallam Fields alleging that the presence of these diseases in Hallam Fields was entirely due to the proximity and offensiveness of the effluvia from the Sewage Farm.

These numbers 879 compared with 903 1892. The next material increase was consequently 541. The increase due to immigration and the decrease due to emigration are extremely difficult to estimate. Of the birds 459 were males and 440 females. The above figures might be summarized as follows, dividing the year into quarters.

Quarter Ending	Total	Males	Females	Immigrants	Emigrants	Net Increase	Males	Females	Total
1st Jan 93	42	21	21	3	3	0	12	12	24
30 June 93	90	44	46	7	4	3	19	18	37
30 Sept 93	100	51	49	10	11	-1	24	23	47
31 Dec 93	110	57	53	10	14	-4	28	24	52
Total	358	183	175	32	32	0	63	63	126

Gymnotus bilineatus

The seven principal gymnotic diseases caused 330

0	malpasc
4	beak fever
0	proseba
2	gill disease
1	throaty cough
9	jaundice (acute &c)
14	diarrhoea

Total 33

Of these 13 occurred in 1893. In the early part of the year, I had occasion to recommend the closing of the school at Ballam fields on account of serious outbreak of measles. In the year I again recommended the closing of the school on account of a widespread outbreak of beak fever. In reference to these two outbreaks I furnished the Health Committee, with the following special report, a description of incidents at Ballam fields attesting the presence of these diseases in Ballam fields was entirely due to the proximity and offensiveness of the effluvia from the sewage farm.

Report on the occurrence of Scarlet Fever, &c at Hallam Fields during 1893, said to be due to the proximity of the Sewage Farm.

To the Chairman and Members of the Health Committee

Gentlemen

During the 8 months from January to August of this year there occurred in Hallam Fields

- | | | |
|-------|------------|------------------------------|
| (1) | 102 | cases of Scarlet Fever |
| (2) | 39 | " " Sore throat |
| (3) | 99 | " " Diarrhoea |
| (4) | 64 | " " Measles and |
| (5) | 20 | " " illness of various kinds |
| Total | <u>324</u> | cases |

The population of Hallam Fields is 1014

In the first place, we might at once dispose of (5), the 20 cases of illness of various kinds, which might occur in any community, and have as far as I can see no connection with sanitary or insanitary conditions. In the case of (3), the cases of Diarrhoea were "pretty equally distributed through the place". It was not more prevalent in Hallam Fields than in other parts of your district. So far as my knowledge goes, ~ Diarrhoea was prevalent in all parts of the district, as much so in botmanhay as in Hallam Fields, but did not single out one street or one part of the district for attack leaving the rest unvisited.

Two factors are present in almost all outbreaks of Summer Diarrhoea. It has been found that before any serious outbreak of Diarrhoea occurs, the temperature of the soil must reach a certain height. This point appears to have been reached earlier than usual this year, owing no doubt to the exceptionally hot Summer. The other condition is the presence of decaying or ~

During 1873, and to the University of the damage
 done.

To the Chairman and Members of the Health Committee

of London

During the 2 months from January to June
 of this year the Corporation of London Health
 Committee have been dealing with the

(1)	20	cases of various kinds
(2)	44	cases of various kinds
(3)	99	cases of various kinds
(4)	20	cases of various kinds
(5)	20	cases of various kinds
	<u>203</u>	<u>cases</u>

The Population of London is 1,014,000

In the first place we might be asked to explain of (2)
 the 20 cases of cases of various kinds, which might
 occur in any community, and have for as it can be
 no connection with anything in any community
 In the case of (3), the cases of various kinds were pretty
 equally distributed through the year. It would be
 found that in London, there are no other parts of
 your district. As far as my knowledge goes, -
 I have been a great deal in all parts of the district
 as much as in any other part of the district. As
 far as my knowledge goes, it is not a part of the district
 for which I have the best knowledge.
 The fact is one which is almost all outside
 human knowledge. It has been found the before on
 several outbreaks of various kinds, the temperature
 of the soil must reach a certain height. This is
 apparent to have been reached earlier than usual the
 year, owing no doubt to the exceptionally hot summer
 the other condition is the presence of decaying or

putrefying organic matter in the house, or in the soil - surrounding the house or in both. This latter condition was present abundantly in that part of Hallam Fields most affected by Scarlet Fever &c. Children, as is well known, are more susceptible to the effect of insanitary conditions than adults, and hence we find Diarrhoea more prevalent among them. The temperature of the soil is a condition over which we have practically no control, but the other condition - uncleanly habits of body, uncleanly houses, yards polluted by slops and filth, untrapped drains, foul undrained and uncleaned pigstyes and such like insanitary conditions as are to be found unfortunately too frequently - is one which is completely under control. This control in some cases must be exercised by the individual, either owner or tenant, in others by the local Sanitary Authority. The individual, for example, is responsible for the cleanliness of his own body, his house, his yard, the local Sanitary Authority, for emptying ash pits, privies, the prevention of nuisances from pigstyes, drains, accumulations of filth, and so on.

Incidence of Scarlet Fever at Hallam Fields

Now when we come to consider the incidence of Scarlet Fever and Measles in Hallam Fields, we cannot but be struck by their very unequal distribution. In the houses nearest to the Sewage Farm - North View, Hingston Terrace, Cornfield Houses, Mitchell Terrace &c (call this "District A") we find only 5 cases of Scarlet Fever, while in Crompton Street, Post Office Row and South View (call this "District B") there were 94. On examining the two districts with a view to discover the cause of the immunity of the one district and the large number of attacks in the other, we find that in "District A" the houses are for the most part new, and as a rule have a higher standard of cleanliness with less overcrowding than in "District B". In this, the houses are more or less overcrowded partly through large families partly through taking in lodgers. In "B" we also find that much less attention is paid to personal and domestic cleanliness, and to the avoidance of pollution of the yards by slops and sewage

II

than there ought to be. In view of the large number of untrapped or badly trapped drains, foul pigstyes &c in "District B", it is not to be wondered at that numerous cases of sore throat of a diphtheritic character should have occurred. I have, however, received no notifications of any case of Diphtheria at Hallam Fields during the year. From my own observation of cases, I am convinced that the majority of cases of sore throat which occurred at Hallam Fields were in reality due to attacks of Scarlet Fever with little or no rash. Such cases occur in all epidemics of Scarlet Fever. We should not be far from the truth, I think, if we simply lumped the 39 cases of "Sore Throat" with the 102 Cases of Scarlet Fever, and said that there were 141 cases of Scarlet Fever.

The question next arises, "If this outbreak of Scarlet Fever was due to the Sewage Farm, how is the freedom of Hallam Fields from infectious disease for several years back to be explained." The fact that the Sewage Farm has existed on its present site for years without any material alteration for the worse points conclusively, I think, to the absence of any connection as cause and effect between the farm and the outbreak of Scarlet Fever. Some years ago, there was an outbreak of Scarlet Fever in Ilkeston during which Hallam Fields suffered to the same extent as the rest in proportion to its population. Since that time there has been a period of quiescence, a period of freedom from infectious diseases. During this period susceptible persons have been accumulating, so that on the introduction of a case of Scarlet into school the Epidemic was started with every possible chance of spreading. The first cases which occurred were among children of school age, not among infants, although it afterwards spread to them. The outbreak of Scarlet Fever was to a great extent checked by the closing of the school, thus proving beyond doubt that the school, if not the only factor, was at any rate a very important one in spreading the disease. The school at this time was certainly overcrowded. It

It is not to be overlooked that numerous cases of
this of a distinctive character should have been
I have, however, received no notification of any case of
disturbance at Ballantyne's during the year. From
own observation of cases, I am convinced that the
of cases of this kind which occurred at Ballantyne's
were in reality due to attacks of latent typhus with
it marked. Such cases occur in all epidemics of
latent typhus. The attacks are so few from the fact
I think, if we simply compared the 29 cases of "latent
typhus" with the 102 cases of latent typhus, and
that there were 101 cases of latent typhus.
The question must arise, "If this outbreak
latent typhus was due to the change from town to the
freedom of Ballantyne's from infectious diseases
and of course to be explained." The fact that
the change from the infected to the uninfected
years without any marked disturbance for the next
years continuously. I think, to the absence of an
connection as cause and effect between the form of
the outbreak of latent typhus. Some years ago, there
was an outbreak of latent typhus in Ballantyne's
which Ballantyne's is subject to the same extent
the next in proportion to its population. Since the
time there has been a period of quiescence, a period
freedom from infectious diseases. During this period
susceptible persons have been accumulating, so that
on the introduction of a case of latent typhus into the
the epidemic was started with every possible chance
of spreading. The first cases which occurred were
among children of school age, not among infants,
although it afterwards spread to them. The outbreak
of latent typhus was to a great extent checked by the
closing of the school. This having passed about the
the latest, if not the only factor, was at any rate
very important one in checking the disease. The
fact at this time was certainly overlooked.

has since been enlarged.

Now what do we find in all records of epidemics of Scarlet Fever, and of most other infectious diseases? We find that this periodical appearance of the disease is well marked more so in some towns and districts than in others. It is thus manifest that Scarlet Fever is not a disease which is much influenced by such conditions as defective drains &c. by such conditions as would, in fact, favour the spread of Enteric Fever. The disease does, on the other hand, spread rapidly in families or schools where overcrowding exists. The same remarks apply with equal force to Measles, the incidence of which was practically the same as that of Scarlet Fever.

In reference to the sewage farm and the methods of sewage purification carried on there, I need say very little, as the whole matter is being rearranged, and I trust that when the rearrangement is completed there will be no cause for complaint on the part of the good people of Hallam Fields. That there have been smells and odours from the Sewage farm especially during this exceptionally hot summer, all must admit. I would point out to you, Gentlemen, that in dealing with sewage whether in drains, sewers or elsewhere, if the free admission of fresh air be obstructed or impeded, the worse and more foul smelling will the stench become. If you cork up the stench at the Sewage Farm, where I consider there ought to be the very freest ventilation, you simply drive the sewer gases back into the houses of the people, even though there may be well formed and well constructed traps which would under ordinary circumstances prevent their admission.

Conclusions

- I We may discount the 20 cases of various kinds of illness as having no bearing on the case at all.
- II The 102 cases of Scarlet Fever and the 39 cases of sore throat should be combined as being the same disease.
- III Diarrhoea was not appreciably more common in Hallam Fields than in other parts of the district — distant from the Sewage Farm, and can be accounted for easily by insanitary conditions brought about chiefly by the people themselves, which conditions

I have been thinking of you very much lately, and of the
 interest which you have taken in the cause of the
 poor, and of the many good things which you have
 done for them. I am sure that your efforts will
 be successful, and that the poor will be
 benefited in many ways. I am sure that you
 will be able to do much good, and that the
 cause of the poor will be advanced. I am
 sure that you will be able to do much good,
 and that the cause of the poor will be
 advanced. I am sure that you will be able to
 do much good, and that the cause of the poor
 will be advanced. I am sure that you will be
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 will be able to do much good, and that the
 cause of the poor will be advanced. I am sure
 that you will be able to do much good, and
 that the cause of the poor will be advanced.

- Conclusions
- I The many diseases of the human body are of various kinds of illness as having no bearing on the case at all.
 - II The 100 cases of disease taken and the 20 cases of disease that should be considered as being the same disease.
 - III Disease was not especially more common in the human body than in other parts of the animal kingdom from the large town, and can be accounted for easily by unsanitary conditions brought about chiefly by the people themselves, which conditions prevent their admission.

they can as easily prevent as cause.

IV Scarlet Fever and Measles, unlike Enteric Fever, are not influenced by insanitary conditions and uncleanly habits to any great extent, but spread in periodical waves or epidemics after periods of almost complete absence, among susceptible individuals. The chief means of spreading Scarlet Fever and Measles is by overcrowding and want of free ventilation at home or at school, and want of early and sufficiently - long isolation of the first cases.

V Freer ventilation of drains and sewers is desirable.

I have endeavoured in this short Report to place before you simply what bears on the matter under discussion. I hold no brief for the defence of the Sewage Farm, I have therefore omitted many matters of much importance in connection with the Farm. I have tried to lay the responsibility of the outbreaks of disease at Hallam Fields on the shoulders of those really responsible for their occurrence.

I am, Gentlemen,

Your Obedient Servant

Joseph Carroll M.B., D.P.H.

Medical Officer of Health

31st October 1893.

Report on the conditions which would assist in spreading
the infection of cholera in Ilkeston.

To The Mayor, Aldermen & Burgesses of the Borough of Ilkeston
Gentlemen,

In view of the possible introduction of Asiatic
Cholera into your district, I have thought it advisable to
point out to you the conditions which would favour the
spread of the disease.

- (1) Water supply. The question of the water supply is one of
the most important considerations in connection with out-
breaks of Cholera, Diarrhoea, Enteric Fever &c. On the
subject of the water supply of Ilkeston I have spoken
frequently and in condemnatory terms. Our supply is at
the present time ample, but being largely made up of
water from the Nutbrook and Stanley Brook both of which
are very badly polluted with sewage from villages on their
banks, it is very far from being satisfactory. The water
from these polluted sources ought to be cut off, and a better
supply found at once. I would suggest that while the people
are compelled to use this polluted water, they should thor-
oughly boil it before use, none of it should be used unboiled,
and none used more than 24 hours after being boiled. We
can do very little to prevent this pollution of the water supply,
so that the proper course for us to adopt is to abandon the
Nutbrook as a source of water supply and push on with
the Babington scheme since the water from that source
appears from the Analysis to be very satisfactory.

The necessary powers to prevent the pollution of our water
supply are given by the Public Health Act 1845 and the
Rivers Pollution Prevention Act 1846 and the Local Govt
Act 1888.

- (2) Food. Anything which weakens or impairs the general
health of the people renders them more liable to attacks
of illness. On this account, tainted food, and unripe, unsound,
and too ripe fruits ought to be studiously avoided. All
milk ought to be boiled at once on being received into the
house, since it is well known that milk is one of the best

Report on the Committee which would assist in providing
the inspection of factories in the district.

To the Mayor, Aldermen & Burgesses of the Township of St. John
St. John's.

In view of the fact that the inspection of the
factories in your district, I have thought it advisable
to point out to you the committee which would favour the
interest of the district.

(1) Water Supply. The question of the water supply is one
of the most important considerations in connection with the
growth of the town, St. John's, and it is one of the
subjects of the water supply of the district. I have a great
difficulty and in order to make it more. Our supply is
the present time ample, but being largely made up
of water from the district and the water from the
river is not sufficient to supply the district. It is very
difficult, it is very far from being satisfactory. The
fact that the water supply is not sufficient to be cut off, and a
supply found at once. I would suggest that while the
we are compelled to use the present water, that should be
ought to be it before we, none of it should be used and
and more used more than it has often being better
than to very little to prevent this fact that of the water
as that the proper course for us to adopt is to obtain
the water as a source of water supply and push on
the water supply scheme since the water from that
appears from the district to be very satisfactory.
The necessary means to prevent the fact that of our
supply is given by the Public Health Act 1875 and the
Public Health Act 1876 and the fact of
Oct 1888.

(2) Food. Nothing which we can do or improve the
health of the people more than more likely to be
of them. On this account, I would suggest that
and to give food to be actually needed. It
will ought to be to be to be being received in
fact, since it is well known that milk is one of the

means of conveying the infection of such diseases as Cholera, Enteric Fever &c. In this connection, I would urge upon you, Gentlemen, to exercise strict inspection of all dairies, cowsheds, and slaughter-houses. The byelaws you have recently adopted in respect to these ought, if strictly carried out, to effect great improvements in their Sanitary condition.

- (3) Air. The air may be seriously polluted by slops, garbage and other refuse thrown on the streets and on yards behind houses, and allowed to lie there putrefying. In the case of Cholera, Enteric Fever &c the discharges from the bowels and stomach ought to be thoroughly disinfected, and then, if possible, buried away from any source of water supply. These discharges never ought to be thrown on the yards under any circumstances nor ought they to be thrown into ashpits or privies without previous thorough disinfection.
- (4) Disinfection ought to be carried out thoroughly and systematically in all cases of infectious disease. This can be done in the case of infected clothing, bedclothes and all articles that admit of it, by placing them at once in a solution of the Perchloride of Mercury. Some colouring matter should be added, as it is very poisonous, to prevent accidents, and the addition of an acid to the solution increases its activity. Metallic articles, e.g. spoons, knives &c must not be placed in it, nor must it be put into metal buckets or vessels. Of course, it may be freely used in earthenware vessels. All articles steeped in this solution ought to be put to soak for several hours before being washed. The Local Gov^t. Board recommend for disinfecting floors, excreta &c that this solution should be made as follows - Perchloride of Mercury $\frac{1}{2}$ oz. Hydrochloric Acid 1 oz, Water 3 gallons (a bucketful) It should be coloured with 5 grains Aniline blue, Sulphate of copper or Permanganate of Potash. It should be used without further dilution. Chloride of lime is also useful for disinfection of excreta. For clothing, 2 oz to 1 gallon of water is strong enough. Carbolic Acid, 5 per cent at least in water, is useful for disinfecting the excreta and soiled linen of Cholera patients. If bedding &c be very

filthy, it pays best to burn them, and give compensation under section 121. Public Health Act 1875. Bedding and large pieces of furniture &c which cannot be treated with any of the above solutions should be disinfected by heat, but at present no means are provided for such disinfection. The best apparatus for the purpose is the steam disinfector invented by Washington Lye.

- (5) I have on many occasions urged upon you the necessity and the advantages of adopting the Infectious Diseases Notification Act 1889 and the Infectious Diseases Prevention Act 1890. The diseases notifiable under the Act of 1889 are Smallpox, Cholera, Diphtheria, Membranous croup, Erysipelas, Scarlet, Typhus, Enteric, Relapsing, Continued and Puerperal Fevers. Unless we know that infectious diseases exist in the district and where, how can we expect to deal successfully with any outbreak? I look upon it as your bounden duty, as the custodians of the Public Health to adopt these Acts at once, and especially in the face of the possibility of the early introduction of Cholera and Smallpox.

(Note. The Infectious Diseases Notification Act 1889 was adopted and came into force on 1st April 1893.)

- (6) House refuse ought to be more frequently removed than at present, and plenty of disinfectants used to sprinkle over the inside of the ashpits &c. I should advise that more men and horses be employed so as to ensure the frequent removal of all household refuse, excreta &c from privies and ashpits. But the difficulty of dealing with this refuse is not settled when it is removed from the ashpits and deposited at the "tips". Our system of tipping it at various places is bad from every point of view, and I now urge upon you the absolute necessity of providing at once some means of destroying this refuse by burning. The provision of such a refuse destructor would confer vast and lasting benefits on your Sanitary district. The accumulations of filth are large and yearly increasing, so that you will be compelled sooner or later to provide a destructor. It is not expected that it will pay in £. s. d., but it will repay the people of the district by having purer air to breathe, and having therefore better health and less sickness.

(8) It would be advisable to make provisions for the immediate treatment of all cases of illness where diarrhoea with or without vomiting is a symptom, no matter how slight the attack may be or may seem to be. The premonitory diarrhoea of Cholera is often very slight and painless, and it is well known that judicious treatment during this stage of the disease is much more likely to cure the patient than if the disease be allowed to ~~go on~~ ^{go on} to a more advanced stage.

- (9) We are at the present time threatened with two severe and fatal epidemic diseases - Cholera and Smallpox. It is necessary, \therefore , that I should point out to you that our present hospital accommodation would be totally inadequate in the event of a simultaneous outbreak of these two diseases. On measuring the rooms in the hospital at Little Statham, I find that there is accommodation for only 12 patients, i.e. allowing 5,000 cubic feet for each patient. One of the wards has to be used at present as a bedroom, so that I should advise you to erect some wooden huts on the ground where the Sanatorium stands. These would cost little, and would be perfectly efficient. We could then promptly isolate cases as they occurred.

We ought to do all in our power to induce patients suffering from infectious diseases to avail themselves of the Sanatorium. For this purpose, we ought to remit all fees for treatment &c. while patients there. As Dr. Whitelegge puts it :- "It is of the utmost importance, if isolation is attempted upon the large scale, to make the hospitals perfectly free, and this is only reasonable since the public gain as much as the patient by his seclusion. Any charges, however small and however easily remitted, are deterrent in the very cases in which isolation is most needed. The revenue from patients' fees is at most a small fraction of the cost of maintenance, and the wholesale remission of them - without which the isolation of cases among the working classes is impracticable - has an appearance of charity which is naturally resented.

An exception may be made in respect of the wealthier classes who are willing to pay suitable fees for the use of private wards and special nurses."

- (9) Handbills ought to be printed and distributed to the people giving them the necessary directions how to proceed in cases

statement of all cases of illness where diagnosis with or without something is in question, no matter how slight the attack or how many seem to be. The preliminary diagnosis of disease often very slight and transient, and it is well known that judicious treatment during this stage of the disease is more likely to cure the patient than if the disease be allowed to go on to a more advanced stage.

(19) The one of the present time threatened with two severe fatal epidemic diseases - Cholera and smallpox. It is necessary, I think, to point out to you that our free hospital accommodation would be totally inadequate to the want of a simultaneous outbreak of these two diseases. Measuring the rooms in the hospital at Little Chatham, I find that there is accommodation for only 12 patients, i.e. 2,000 cubic feet for each patient. One of the main reasons to be used at present as a bedroom, so that I should say you do not have room for the patients in the ground where the hospital is situated. There would be little, and would be of no use. We could then promptly relocate cases if necessary.

We ought to do all in our power to induce patients to suffer from infectious diseases to avoid the chances of the disease for this purpose, we ought to remit all fees for treatment while patients there. The 20th Legislature puts it: "It is almost impossible, if isolation is attempted upon the large scale, to make the hospital perfectly free, and this is an insupportable since the public gain as much as the patient his exclusive. Any charges, however small and however small, are admitted in the very cases in which isolation is most needed. The revenue from patients' fees is at most a small fraction of the cost of maintenance, and the admission of them - without which the isolation of cases among the working classes is impracticable - is a matter of charity which is naturally resisted. The exception may be made in respect of the medical fee who are willing to pay subscription for the use of private and special nurses."

(20) It would be ought to be provided and distributed to the giving them the necessary directions how to prevent in

neglect of the instructions. (This has been done. H.)

- (10.) In the event of anyone dying of an infectious disease such as Smallpox or Cholera, the body should be placed as soon as possible in the coffin which should be filled up with disinfectant, and the lid screwed down. Mourners should not meet in the room in which the death occurred. If the body is a danger to health, it may be removed to a mortuary.

I am, Gentlemen

Your Obedient Servant

Joseph Carroll

neglect of the instructions. (10)
In the event of anyone dying of an infectious disease
such as smallpox or Cholera, the body should be placed
as far as possible in the coffin which should be filled up
immediately, and the lid secured down. No one should
not meet in the room in which the death occurred. If
body is a danger to health, it may be removed to a
mortuary.

Yours obedient servant
Joseph D. Carroll

The Sanitation Bill, which was passed by the Council, decided to adopt came into force on 1st April 1893 since that date I have received 156 Notifications from Medical men in the Town. Of these 61 were cases of Scarlet Fever, 71 cases of Enteric Fever, 7 Diphtheria, 2 Membranous croup, 3 Erysipelas, 4 Puerperal fever and 2 Cholera. It is possible that we might have become aware of the existence of these cases of infectious disease without compulsory notification, but I fear we should not. With conditions practically the same during 1892, a very much smaller number of cases was reported, so that I am inclined to look upon the adoption of the Act of 1889 with great favour and hopefulness. The reports, besides localizing individual cases, point out to us the particular respects in which our sanitary arrangements are defective. Enteric Fever has been termed "a filth disease" because caused by pollution of water, soil, air and food by sewage or other organic filth. The great prevalence of this disease in your district points to a most serious and dangerous state of matters. It is a well known fact that our water supply is from polluted sources. Our soil and subsoil are polluted by old-fashioned leaky privies - middens, by defective drains and sewers. The same may contaminate our air, and our food may be contaminated and polluted in a great variety of ways. Untrapped or badly-trapped drains in houses, cellars, defective drains, leaky cesspools &c, may contaminate our milk and other foods. It is well known that very severe outbreaks of disease have been caused by drinking contaminated milk, and many obscure cases of illness may be attributable to similar causes.

The prevalence of Enteric Fever has another, and I might almost say a more serious significance. There are other diseases known as "filth diseases", and these include some of the most serious and fatal epidemic diseases which afflict mankind. Of these repulsive diseases "Cholera", "Asiatic Cholera", or "Cholera Morbus", as it is sometimes termed, in contradistinction to English Cholera, is the one most to be dreaded. Now Enteric Fever is always with us when our air, food, drink and water are polluted, and as Cholera is propagated in precisely the same way, we may take Enteric Fever as an index of our liability to the more deadly disease. This being so, and taking into consideration the fact of two undoubtedly genuine fatal cases of Asiatic Cholera having

The prevalence of cholera in the East is a well-known fact, and it is not surprising that it should be found in the West. The disease is caused by a specific microbe, which is found in the water and food of the infected. The disease is characterized by severe vomiting and diarrhea, and it can be fatal if not treated promptly. The prevalence of cholera in the East is due to a number of factors, including poor sanitation, lack of clean water, and the presence of the microbe in the environment. In the West, the disease is less common, but it can still occur, especially in areas with poor sanitation and lack of clean water. The prevalence of cholera in the East is a reminder that we must always be vigilant in our efforts to prevent the spread of this and other infectious diseases.

actually occur. In Ilkeston during the year besides 2 in which there was a very strong suspicion of genuine cholera, I contend that we ought to be up and doing to remove from our midst all possible sources of danger. We must leave nothing in our district which is in any way suspicious. And first and foremost among the many urgent sanitary improvements required in the Town is improvement of our water supply. In a report I submitted to you early in the year, I pointed out many sanitary defects and you may depend on it that if Cholera breaks out in Ilkeston in the Summer of 1894, as I expect it will do, it too will point out the same sanitary defects, only in a way which compels attention. Cholera can only thrive in our midst if we allow it by permitting all sorts of pollution of our water-supply, all sorts of defects in our arrangements for refuse and excrement, disposal and destruction. The health of the people of Ilkeston it is your special duty to guard and protect by every means which modern science and research place at your disposal, and any Sanitary Authority which neglects to avail itself of these means is neglecting its first and most obvious duty. Dr. Wheaton from the Local Govt Bd. visited your district twice on account of the outbreak of Cholera, and on the second occasion (31st October 1893) pointed out to you practically the same sanitary defects as I had previously drawn your attention to in my Annual and other reports. I should like to see more activity in carrying out his suggestions and recommendations for the improvement of the health and sanitary condition of the Town.

We are still unprovided with any effective means of disinfecting clothing, bedding &c. At the present time there are several excellent forms of disinfecting apparatus, one of the best of which is the steam disinfecter patented by Washington Lyon.

19 Patients were treated in the Sanatorium during the year, namely 5 from Scarlet Fever, 1 from Smallpox, 7 Enteric Fever, 4 other diseases. I paid in all 121 visits to the Sanatorium. In speaking on this subject I would again urge you to take into consideration the advisability of making admission to the Sanatorium easier and less dependent on the Relieving Officer. People naturally resent

believe in making admission to the Sanatorium absolutely free, since the people gain as much as the patient by his isolation. The necessary sequel to making admission free is to make removal to the Sanatorium compulsory in the case of the poorer class who are very badly provided with any means of isolating and nursing such cases. The keeping of such cases at home in small, and sometimes overcrowded rooms, renders possible extensive outbreaks of these diseases.

The town of Ilkeston is situated on the borders of Derbyshire. The Sanitary district has an area of 2526 acres, and a population (estimated to the middle of 1893) of 20,930. The soil of the district is principally clay overlying ironstone and coal.

The only navigable waters in the district are the Erewash Canal on the East and the Nutbrook canal on the West. The river Erewash, accompanying the former, forms the boundary between the Counties of Nottingham and Derby, while the Nutbrook runs alongside the latter. The Erewash river is contaminated with sewage from villages and farms higher up the stream, and the sewage from parts of the Borough below the level of the intercepting sewer also passes into it. The Nutbrook is also sewage-polluted by places higher upstream. A short distance above the waterworks at Kirtstallum, the Nutbrook is joined by the Stanley-brook, which receives a very large amount of sewage from Stanley and places in that direction.

This pollution is much to be regretted since Ilkeston has to depend to a certain extent for its water supply on these sewage-polluted streams. The rest of the water supply, 90 per cent, is derived from a shaft at Kirtstallum and the reservoir at Shipley to the North of the Town. I have heard no complaints during the year with regard to the supply, but being polluted as before-mentioned, it must be considered unsatisfactory as to quality:-

The number of houses supplied with Town water exclusive of business premises is 3664 being an increase of 222 on previous year. The average consumption of water per head per diem was 16.5 gallons.

of these diseases. The town of Leicester is situated on the borders of Leicestershire. The sanitary district has an area of 20.250 acres, and a population estimated to the middle of 1890 of 20,930. The soil of the district is principally clay & being irrelative and soil. The only navigable waters in the district are the River Great Ouse, comprising the former, formerly to any between the borders of Leicestershire and Northamptonshire. The district was originally the latter. The River is contaminated with sewage from villages and farm houses up the stream, and the sewage from farms of the district below the level of the intercepting sewer at places higher up the stream. A short distance above the waterworks at Kibworth, the district is given to the Kibworth, which receives a very large amount of sewage from Kibworth and places in that direction. This pollution is much to be regretted since Leicester is dependent to a certain extent for its water supply on sewage-polluted streams. The rest of the water supply so far as is derived from a shaft at Kibworth is the reservoir at Kibworth to the north of the town. It is feared no complaint during the year with regard to supply, but being polluted as before-mentioned, it may be considered unsatisfactory as to quality: -

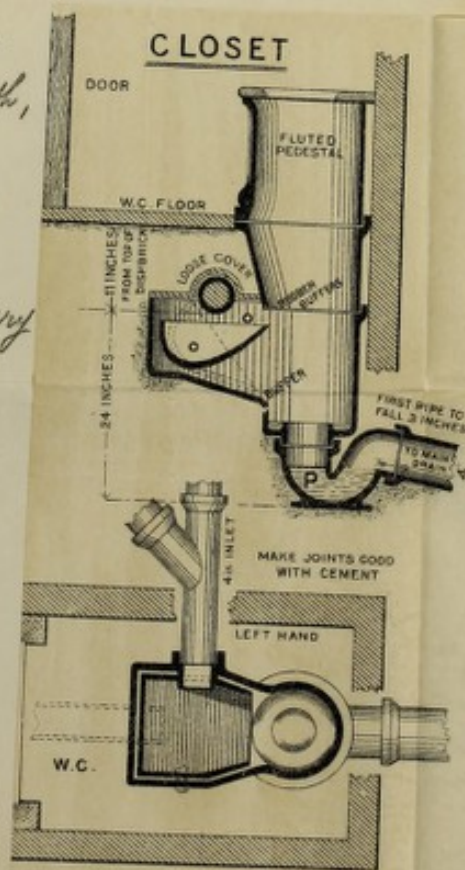
The number of houses supplied with town water and of business premises is 3647 being an increase of 1000 in the year. The average consumption of water per person was 20.250 gallons.

The town of Leicester is situated on the borders of Leicestershire. The sanitary district has an area of 20.250 acres, and a population estimated to the middle of 1890 of 20,930. The soil of the district is principally clay & being irrelative and soil. The only navigable waters in the district are the River Great Ouse, comprising the former, formerly to any between the borders of Leicestershire and Northamptonshire. The district was originally the latter. The River is contaminated with sewage from villages and farm houses up the stream, and the sewage from farms of the district below the level of the intercepting sewer at places higher up the stream. A short distance above the waterworks at Kibworth, the district is given to the Kibworth, which receives a very large amount of sewage from Kibworth and places in that direction. This pollution is much to be regretted since Leicester is dependent to a certain extent for its water supply on sewage-polluted streams. The rest of the water supply so far as is derived from a shaft at Kibworth is the reservoir at Kibworth to the north of the town. It is feared no complaint during the year with regard to supply, but being polluted as before-mentioned, it may be considered unsatisfactory as to quality: -

As regards the Disposal of house-refuse, I would again draw your attention to the unsatisfactory arrangements now in force. There was a little more activity displayed in its removal for a while after Dr. Wheaton's visits and in consequence of his recommendations. But this increased activity has not been maintained, and in consequence matters have simply relapsed into their former unsatisfactory state. I have had several complaints during the year about the emptying of ashpits and tub-closets. There is considerable difficulty in rapidly-growing places in keeping pace with the accumulation of house-hold refuse. This difficulty is increased when we continue to increase the number of tubs. I consider the tub-system an unsatisfactory and expensive one. Instead of increasing the number of tub-closets, I would strongly recommend the introduction of W.C.s wherever possible. For Cottage Property no form of closet is in my opinion better adapted than the waste water closet, one form of which is shewn in the accompanying illustration. In this the wastewater is conducted by a pipe from baths, sinks &c. into a tumbler so arranged that when full it tips over flushing everything before it into the sewer. where water is scarce, or where it is desirable not to increase materially the amount of sewage to be dealt with, this is a most useful form of closet. Tubs are being abandoned in almost every town where they have been in use as a more expensive and insanitary system than that by water carriage.

Very few ashpits are now emptied by private individuals but I consider it the duty of the Sanitary Authority themselves to remove all refuse and do all scavenging. Private individuals frequently neglect the emptying of ashpits and so cause nuisances.

The favourite arrangement in Lekeston for disposal of household refuse &c. is the old fashioned privy-



midden. This combination has the great disadvantage of keeping large accumulations of decomposing filth and refuse. I may say all these privy-middens allow of percolation of sewage through their sides and bottoms and lead to serious pollution of the soil and ground air and water. This arrangement is one which I consider never ought to be allowed in a town of the size and importance of Ilkeston, but if constructed, should be made as recommended by the County Council, copies of these plans, (sections, elevations, and specifications) of privy middens can be obtained from Messrs Bemrose, Derby.

In connection with refuse disposal, I again wish to draw your attention to the necessity of erecting a Refuse Destructor. Our present system of tipping the refuse at various places is the most objectionable and the most dangerous way of disposing of it. The continuance of this system, year after year is bound to be followed by serious consequences to the health of the town. The Sanitary Authority of any district has no right to create nuisances for the removal of which they would promptly serve a notice on a private individual. I can only repeat that the greatest nuisances in Ilkeston are caused by our refuse tips.

Sewerage. The main sewer and submains are of sanitary glazed pipes, some of brickwork with a short length of iron pipes. The house drains are mostly of glazed earthenware pipes with cemented joints. To obviate the unpleasant smells sometimes complained of from the street gratings more ventilating shafts should be put in. Some have been put in with good effect.

The sewage is mostly disposed of on the Sewage Farm by irrigation and intermittent downward filtration. The remainder of the sewage from a small portion of the Borough below the level of the intercepting sewer is discharged into the Erewash Canal and River. Arrangements are in progress to have this sewage, treated chemically in precipitating tanks at various points, the water filtered through magnetic carbide filters and thereby rendered sufficiently pure to be discharged into any stream.

is situated at Little Stallam. It has 4 wards. 2 male and 2 female. There is accommodation for 12 patients. I may point out to you that in the event of an epidemic, or a simultaneous outbreak of two epidemic diseases, e.g. Smallpox and Cholera, our present accommodation would be totally inadequate. There is only one bedroom for nurses. So far, the hospital has been used for the treatment of cases of Smallpox, scarlet fever, and Enteric Fever.

The Bye Laws:- The Model Bye-Laws of the Local Govt Board have been adopted in so far as they relate to your district. The necessary corollary to their adoption is their strict enforcement, and this I have no doubt your officials are ready and willing to do through the various committees.

The Canal Boats Acts:- Ilkeston is a registration authority under the Canal Boats Acts 1847 and 1884.

The Houses of the working classes are upon the whole in fairly good habitable condition and repair. A good proportion of them is dry, but in most, ventilation is defective. A few are overcrowded, and in most there are as many inmates as the houses can accommodate. The closet accommodation is generally sufficient being 1 closet to two houses. In some cases, each house has its own closet, and a few are supplied with W.C.

I should be very pleased if you would adopt the suggestion contained in my last year's report, namely, to keep at the Town Hall samples of the various sanitary appliances to be used, so that builders and others might be in no doubt as to what drainpipes, traps, W.C.s &c they are required to put into buildings.

The condition of slaughterhouses remains unsatisfactory. I trust to be able to report a considerable improvement in respect of them when we get the new bye-laws fully into operation. In connection with this matter, I should be very pleased to see a small public abattoir erected in Ilkeston. We should then be able to inspect all meat exposed for sale in the Borough or being prepared for sale. As matters stand now, we have virtually no control over our meat supply. I often hear it said that one can sell anything in the shape of flesh meat in Ilkeston.

all everything in the shape of flesh meat in the
over our meat supply. I often hear it said that we can
rule. The matter stands now, we have no alternative but
expressed for sale in the streets or being prepared for
abandon. We should then look to the disposal of all meat
any place to see a small number of children who had
operation. In connection with this matter, I should be
in respect of them when we get the new life. I am fully
I trust to be able to report a considerable improvement
the condition of the children remains unsatisfactory
put into the hands of the children.
as to what supplies, traps, &c. they are required
to feed, so that children and others might be in no
want of all samples of the various varieties of fowls
contained in my last report, namely, to keep at
I should be very pleased if you would accept the sugges-
and a few are supplied with it.

to the houses. In some cases, such houses have been
least accommodation is generally sufficient for 1500
no many animals as the houses are accustomed. The
defective. In few are overcrowded and in most there is
proportion of them is low, but in most instances is
fully good and the condition and repair. A good
the houses of the working classes and give the water
under the same that was in 1874 and 1875.

The houses in the various districts of the town are
the houses in the various districts of the town are
the houses in the various districts of the town are

I subjoin Mr Evans' detailed list of work done in his department.

Your district has been regularly and systematically inspected by Mr Evans and myself for the detection of nuisances and infectious disease. I must point out to you that in the work of inspecting the district Mr Evans is greatly in need of an Assistant Inspector as recommended by Dr Wheaton, and I should advise the appointment of a thoroughly competent man with a good knowledge of building construction to assist him in the work. I make this recommendation in view of the fact that I am painfully aware ~~of the fact~~ that the jerry builder is not an unknown species in Ilkeston.

I am still far from satisfied with our sanitary condition. I have tried to indicate some of the matters to which we might direct our attention with advantage to ourselves and to the Town. I trust that I shall next year be able to record great advances in all matter relating to the Public Health. No one will rejoice over such advances more than I shall. On you, Gentlemen, rests the responsibility of improving the sanitary condition of the Town and District, and I sincerely trust you will exert yourselves more and more each year to render the town more pleasant and healthy to live in.

I beg to remain, Gentlemen

Your Obedient Servant.

Joseph Farroll M.B. D.P.H.
Medical Officer of Health

(A)

TABLE OF DEATHS during the Year 1893, in the

Indian

Sanitary District of

Albany

classified according to DISEASES, AGES, and LOCALITIES.

NAMES OF LOCALITIES adopted for the purpose of these Statistics; public institutions being shown as separate localities. (See note 4 on back of sheet.) (Columns for Population and Births are in Table B.)	MORTALITY FROM ALL CAUSES, AT SEVERED AGES.							MORTALITY FROM SEVERED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.																							
	At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and up.	(i)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21		
																														Smallpox.	Scarlatina.
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21		
Albany Town,	224	106	19	10	6	34	44	Under 5 upwds.	1	2	1	4	3	1	1	5	1	8	14	5	5	4	21	1	5	5	4	94	38	23	
Albany	106	46	13	3	5	22	14	Under 5 upwds.	1	1	1	3	1	1	11	4	9	2	8	14	5	5	4	21	1	5	5	4	94	38	23
Wallau Fields,	14	8	2	5	2	2	2	Under 5 upwds.	2																						
Albany Hospital,	6	1	2	3				Under 5 upwds.																							
Albany	2	1	1	1				Under 5 upwds.																							
TOTALS	358	160	34	14	14	63	68	Under 5 upwds.	4	1	2	1	8	3	2	1	16	1	15	24	9	8	141	30	1	8	84	141	30	1	8

The subjoined numbers have also to be taken into account in judging of the above records of mortality. See Note 5 on back.

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

The subjoined numbers have also to be taken into account in judging of the above records of mortality. See Note 5 on back.

Deaths occurring outside the district among persons belonging thereto.

Deaths occurring within the district among persons not belonging thereto.

NOTES ON TABLES A AND B.

- NOTE 1. *Medical Officers of Health of "Combined Districts" must make a separate Return for the District of each Sanitary Authority.*
2. *Medical Officers of Health acting for a portion only of the District of a Sanitary Authority should write, in the heading of the Table, the designation of the Division for which they act.*
3. *The words "Urban," "Rural," or "Metropolitan" must be inserted in the appropriate space in the heading, according as the Sanitary Authority for the District is Urban or Rural, or is within the Metropolitan Area.*
4. *The "Localities" adopted for the purpose of these statistics should be areas of known population; such as parishes, groups of parishes, townships or wards.*

As stated at the head of the first column in each Table, *Public Institutions* should be regarded as separate localities, and the deaths in them should be separately recorded. Workhouses, Hospitals, Infirmarys, Asylums, and other establishments into which numbers of people, and especially of sick people, are received are *Public Institutions* for the purpose of these statistics.

5. *The deaths which have to be classified in this Table (A), and summed up in the horizontal line of "Totals," are the whole of those registered as having actually occurred in the several localities comprised within the Division or District. But the registered number of deaths frequently requires correction before it can give an exact view of the mortality of a Division or District; and the two lowest horizontal lines are provided for the purpose of enabling Medical Officers of Health to indicate, to the best of their ability, what the extent of such corrections should be. Details concerning the corrective figures, e.g., the institutions that have been considered, or the particular localities to which corrections apply, may appear in the text of the report or in supplementary tables.*

Area and Population of the District
or Division to which this Return
relates.

Area in Acres 2526

Population (1891) 19744.

In recording the facts under the various headings of Tables A and B, attention has been given to the notes endorsed on the Tables.

Joseph Conall M.B., D.P.H., Medical Officer of Health.

(Date)

1st March

1894.

NOTES ON TABLE B.

(See also Notes on back of Table A.)

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- NOTE 1. The present *Table B.* is concerned with population, births, and sickness (not with mortality) in the Sanitary district or division to which the Table relates.
2. As stated in the heading of Col. (a), *Public Institutions* should be regarded as separate localities, and the new cases of sickness in them should be separately recorded. Workhouses, Hospitals, Infirmarys, Asylums, and other establishments into which numbers of people, and especially of sick people, are received, are Public Institutions for the purpose of these statistics.
3. *Comments on any unequal incidence of notifiable disease upon the several localities, and considerations as to the local incidence of consumption and other prevalent diseases, should be made in the text of the Report.*

Table. C.

		1885	1886	1887	1888	1889	1890	1891	1892	1893
Deaths	Total number	306	340	312	371	381	432	417	355	358
	Rate per 1,000 } per annum	18.5	20.0	17.6	20.3	20.3	22.3	20.8	17.3	17.1
	Zymotic death- rate	2.72	2.45	2.21	2.47	2.07	3.15	1.96	2.25	1.67
Births	Total number	722	736	761	791	851	832	849	905	899
	Rate per 1,000 } per annum	43.7	43.0	43.1	43.4	45.3	43.0	42.1	44.1	42.9
	Rate of increase	25.2	23.0	25.5	23.1	25.0	20.7	21.3	26.8	25.8
Deaths from Zymotic Diseases	Smallpox	-	=	-	2	-	-	-	-	-
	Measles	6	1	-	6	2	21	-	20	-
	Scarlet Fever	14	2	-	3	12	10	9	-	4
	Diphtheria	1	1	1	-	-	-	1	-	2
	Whooping Cough	1	8	19	21	-	7	9	6	1
	Fever Enteric	7	2	2	8	12	8	3	7	12
	Typh ^{us} &c }	-	-	-	-	-	-	-	-	-
	Diarrhoea	16	28	17	5	13	15	17	14	17
	Cholera	-	-	-	-	-	-	-	-	2
	Membranous } croup	-	-	-	-	-	-	-	-	3
		45	42	39	45	39	61	39	47	41

D.
E.

Summary of Sanitary Work done in the Inspector of Nuisances' Department during the Year 1893

in ~~the Derbyshire portion of the~~

Urban

Sanitary District of

St. Keston. (Borough)

							Inspections and Observations made.	Informal Notices served by Inspector.	Legal Notices by Authority.	Nuisances Abated after Notice.
Dwelling Houses and Schools.	Foul Conditions	...	...	...	...	...	11	11	11	11
	Structural Defects	...	...	...	...	...	102		102	102
	Overcrowding	...	...	...	...	...	8	8	8	8
	Unfit for Habitation	...	...	...	...	...	1	1		1
	Lodging Houses	...	...	...	...	...	15			
	Dairies and Milkshops	...	...	...	...	...	24			
	Cow Sheds	...	...	...	...	...	43			
	Bakehouses	...	...	...	...	...	55			
	Slaughter-houses	...	...	...	...	...	48	4	1	8
	Canal Boats	...	...	...	...	...	56	6		6
House Drainage.	Ashpits and Privies	...	...	...	...	...	898	16	106	122
	Deposits of Refuse and Manure	...	...	...	...	...	2	2		2
	Water-Closets	...	...	...	...	...	16	16		16
	Defective Traps	...	...	...	...	...	132	36	132	132
	No Disconnection	...	...	...	...	...	14	14	14	14
	Other Faults	...	...	...	...	...
	Water Supply	...	...	...	...	...
	Pigsties	...	...	...	...	...	19		19	19
	Animals improperly kept	...	...	...	...	...
	Offensive Trades	...	...	...	...	...	2	2	1	2
	Smoke Nuisances	...	...	...	...	...	4	4		4
	Other Nuisances	...	...	...	...	...
	TOTALS	...	...	...	...	...	1453	126	394	450

NOTE.—Where an inspection or notice embraces more than one defect, it may be enumerated separately as regards each such defect.

Seizures of unwholesome Food	...	...	...	...	Nos.	Then have been 128 old privy-middens altered to tub closets.
Samples of Food taken for Analysis	...	...	...	...
" " found Adulterated	...	...	...	...
" of Water taken for Analysis	...	...	...	...	4	4 samples of water were good.
" " condemned as unfit for use	...	...	...	...		3 were very much polluted.
PRECAUTIONS AGAINST INFECTIOUS DISEASE.						
Lots of Infected Bedding Stoved or Destroyed	...	...	...	...	5	
Houses Disinfected after Infectious Disease	...	...	...	...	25	
Schools " " " "	...	...	...	...
Prosecutions for not Notifying Existence of Infectious Disease	...	...	...	...
Convictions " " " "	...	...	...	...
Prosecutions for Exposure of Infected Persons or Things	...	...	...	...	2	
Convictions " " " "	...	...	...	...	2	

(Signed) Thomas Evans.

