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Annual Report

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE

Borough of East Retford,

FOR THE YEAR

1893.

Printed by Order of the Sanitary Committee.

WALTER SPENCER,
Medical Officer of Health.

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1894.

Borough of East Retford.

SANITARY COMMITTEE.

Councillor J. H. Hewitt, *Mayor.*
„ W. J. Lazenby, *Chairman.*
„ Chas. Butler, *Vice-Chairman.*
„ Fish.
„ Hind.
„ Hopkinson.
„ Iremonger.
„ Peatfield.

ANNUAL REPORT, 1893.

East Retford,
12th March, 1894.

TO THE CHAIRMAN AND MEMBERS OF THE SANITARY COMMITTEE OF THE TOWN COUNCIL OF THE BOROUGH OF EAST RETFORD.

Gentlemen,

I herewith beg to present my Annual Report for the year 1893.

The Borough of Retford may be described as partly Urban and partly Rural in character. The Rural part will be dealt with later in my report.

The area of the Borough is 4,532 acres, and the population, assuming it to be increasing in the same ratio as it did during the intercensal period, 1881-1891, may be calculated, to the end of June, at 10,800.

Density of population varies from 12·15 to the acre in East Retford; to 1·12 in West Retford; for the whole Borough the average number of persons to the acre is 2·16. The principal increase of population has been in the Ordsall District.

Density of population, in Sheffield, averages 16·6, the highest being 234·1 persons to the acre.

TABLE I.—*Showing Area, Population, and Density, in each of the Registration Sub-districts.*

Parish.	Area in Acres.	Population, 1891.	Estimated Increase to June, 1893.	Population, June, 1893.	Number of Persons per Acre.
East Retford	288	3438	62	3500	12·15
West Retford	930	821	*nil*	821	1·12
Ordsall.....	1907	3852	98	3950	2·07
Clarborough	1407	2492	37	2529	1·79
Totals	4532	10603	197	10800	2·16 (average)

BIRTHS.

During the year, 332 births (170 males, 162 females) were registered in the Borough; this equals a birth-rate of 30·74 per 1,000.

TABLE II.—*Showing the Birth-rate during the year for the whole Borough, and for each Registration Sub-district, also total Number of Births.*

District.	Estimated Population.	Total Births.	Birth rate ₱ 1000 ₱ annum.
East Retford	3500	102	29·14
West Retford	821	26	21·66
Ordsall	3950	121	30·63
Clarborough.....	2529	83	32·81
Totals	10800	332	30·74

From this table it will be seen the highest birth-rate was in the Clarborough District. Table 3 shows that more children were born in the Borough during 1893 than in any previous year of which we have record. During the last 6 years the births have exceeded the deaths by 843.

DEATHS.

TABLE III.—*Showing Population, Deaths, Death-rate, Births, and Birth-rate, for the last 6 years.*

Year.	Population.	Deaths.		Births.	
		Number of Deaths.	Death rate ₱ 1000 ₱ annum.	Number of Births.	Birth rate ₱ 1000 ₱ annum.
1888	9748	189	18·3	325	30·9
1889	9748	157	16·1	233	22·8
1890	9748	181	18·5	324	31·1
1891	10603	158	14·9	311	30·8
1892	10680	166	14·9	308	21·9
1893	10800	140	12·9	332	30·7

During the year, 152 deaths were registered in the Borough. Of these deaths, 13 occurred within the District, among persons not belonging thereto. 10 died in the workhouse, 2 were accidentally killed, and one was found dead on the road side. Against this I find one Retford person died out of the District, so that the true number of deaths, as far as concerns Retford, is 140, or 20 less than in 1892.

DEATH-RATE.

The death-rate for 1893 is 12·9 per 1,000 per annum. So far as I have been able to find, this is distinctly the lowest on record for the Borough of East Retford.

The Urban death-rate for the County of Nottingham for 1891 was 18·59, and for 1892 it was 17·35, and the average for England (Urban Districts) was 21·1.

The death-rate in England in 1693 was 200 per 1,000 inhabitants.

INFANT MORTALITY.

The infant mortality (under one year) is generally estimated from the annual number of births; thus stated, during 1893, the infantile death-rate was 99 per 1,000; that is to say, if 1,000 children had been born, 99 would not have lived to be one year old.

The average mortality of infants, under one year, for the Urban Districts of the County of Nottingham during 1892 was 167 per 1,000.

Thus, a child born in an average Urban District of the County has little more than half the prospect of reaching the end of its first year of life, which is enjoyed by a child born in Retford.

This remarkably low mortality of infants in Retford is probably, in a measure, due to the dry, mild weather, the absence of extreme poverty, and the fact that we had no serious epidemic disease amongst children during 1893.

TABLE IV.—*Showing Deaths during the year 1893, classified according to Diseases, Ages, and Localities.*

	Ages at Death.								Causes of Death.											
	At all Ages.	Under 1 year.	1 to 5 years.	5 to 15 years.	15 to 25 years.	25 to 65 years.	Over 65 years.		Diphtheria.	Typhoid Fever.	Puerperal Fever.	Cholera.	Whooping Cough.	Diarrhœa.	Phthisis Consumption.	Bronchitis Pneumonia.	Heart Disease.	Injuries.	All other Diseases.	Total.
Union Workhouse ...	14	...	...	...	...	2	12	Under 5	...	...	...	...	...	...	...	...	...	...	...	0
								Over 5	...	...	...	...	...	...	...	7	1	...	6	14
Cottage Hospital.....	1	...	...	...	...	1	...	Under 5	...	...	...	...	...	...	...	...	...	...	...	0
								Over 5	...	...	...	...	...	...	...	...	...	1	...	1
Clarborough.....	33	8	8	1	1	8	14	Under 5	...	...	...	...	...	...	...	1	...	1	7	9
								Over 5	...	1	...	...	...	...	3	4	1	1	14	24
East Retford	43	10	10	...	2	8	17	Under 5	...	...	...	...	1	3	...	2	...	1	10	17
								Over 5	1	...	...	1	...	...	2	...	2	...	21	27
West Retford	10	3	3	...	...	2	5	Under 5	...	...	...	...	...	1	...	...	...	...	1	2
								Over 5	...	...	...	...	...	...	...	...	3	...	5	8
Ordsall	51	12	12	...	5	15	19	Under 5	...	...	...	...	1	2	...	4	...	...	5	12
								Over 5	...	2	1	...	...	2	5	5	5	3	15	38
Totals	152	33	33	1	8	36	67	Under 5	...	...	...	...	2	6	...	7	...	2	23	40
								Over 5	1	3	1	1	...	2	10	16	12	5	61	112

MORTALITY FROM THE NOTIFIABLE INFECTIOUS DISEASES.

The deaths from notifiable diseases were

Typhoid Fever	3
Diphtheria	1
Puerperal Fever	1
Cholera	1

This equals a death-rate of 0·55 per 1000 of the living.

There were also the following deaths, from what are now generally admitted to be preventable diseases,

Whooping Cough	2
Diarrhœa	8
Phthisis	10

There were 26 deaths from preventable causes, equal to a death rate of 2·4 per 1000. If we subtract this 2·4 from 12·9 (the death-rate) we get 10·5, the ideal death-rate for Retford, and one we ought to be able to record.

It seems reasonable cause for reflection when we find there were 26 deaths, and 163 cases of notifiable illness, probable all preventable by suitable hygienic and sanitary conditions. In a small circumscribed Borough like Retford, where there is comparatively little or no obnoxious trade or business, where the surroundings are healthy, and where the attainment of a high degree of Sanitary perfection is so easy, there must be some very potent cause for so much preventable illness. If these deaths are preventable, and this illness is preventable, why not prevented? Sanitarians say, "give us certain conditions and we will undertake there shall be no infectious diseases in your Town." Undoubtedly this is true. The entire suppression of infectious disease is merely a question of the efficient and intelligent application of well-known precautionary sanitary measures, then, if it is possible to prevent this illness and these deaths (which opinion I maintain), how is it they are not prevented? And are not those who deliberately and of aforethought neglect such measures to be held responsible for the deaths which follow? In order to secure a high standard of health in any community, three principal agents are necessary, namely, (*a*) The General Public, (*b*) The Medical Profession, and (*c*) The Sanitary Authority; but, these three agents must work in harmony for the good of the community, and not for the individual.

In this Country Parliament has enacted certain laws for our guidance and especially for the protection of the poor, and England now enjoys the splendid reputation of being governed by the most perfect Sanitary laws, having for their object the saving of life, the prevention of disease, and the improvement of the national health.

Typhoid Fever caused 3 deaths, one in the Clarborough District, imported from Cleethorpes last Summer. The patient was brought home with the disease well marked, and died after he had been at home a short time. The remaining two fatal cases occurred in South Retford, and practically in the same street, in neither case had the patient been away from home. Each house obtained its water from the public service; the milk used was largely distributed in the neighbourhood, and as there were no other cases of illness, in tracing the origin of the disease, water and milk had to be excluded. The premises, when examined, were found to be in a most insanitary condition, each house having an unventilated cesspool close to the back door, from which dangerous emanations forced their way through the imperfect covering and found an easy entrance to the houses through the doors and windows. In the absence of any other mode of infection it is fair to assume this was the direct cause of the illness and death.

Cholera.—Early in the morning of the 11th September, I was notified by Dr. Pritchard, of a case of Cholera at the Half Moon Inn. I at once went to the house, and found the person had died a few moments before my arrival. In view of the public safety, the premises were at once closed, and no one was allowed to leave without being thoroughly disinfected. Having taken possession of the two rooms in immediate contact with the deceased, I sent a messenger to members of the Sanitary Committee, and a conference took place at my house, when it was decided to call a special meeting of the Committee at 10 30. In the meantime a telegram was sent to the Local Government Board, to the effect that a death had occurred, which had been certified to be Cholera, and that my observations confirmed this view; they wired a reply asking for a post mortem examination, and that a portion of the intestines be forwarded to the Government pathologist. The Committee met at 10 30; the outbreak was formally reported, and the situation discussed. It was decided (1) that the Medical Officer arrange for the immediate burial of the body; (2) for the closing and disinfection of the house; (3) that all persons removed to the Borough Fever Hospital, on the advice of the Medical Officer, be removed, maintained, and treated, at the cost of the Authority; (4) that bills and posters, giving Cholera precautions, be immediately printed, posted, and distributed; (5) that the medical practitioners of the town be requested to notify Diarrhœa; (6) that cases of Diarrhœa, coming under the notice of the Medical Officer of Health, be treated free of charge. The relatives took a wise view of the case, and assisted the Authority in every possible way. A post mortem was made, the wish of the Local Government complied with, and the body buried soon after four in the afternoon on the day of death. The entire premises were thoroughly disinfected, under my personal supervision, all suspected clothing was destroyed, and the utmost precautions were taken to prevent the spread of the disease. Fortunately, we had prepared for a Cholera visitation some days previously, and the Authority, acting on my advice, had been paying particular attention to the scavenging department, cleaning yards, courts and alleys, emptying all the privy middens, flushing the sewers, and generally cleansing the town. Diligent search was made, both in the immediate neighbourhood and town generally, for suspicious cases, but none were found; the measures taken proved to be thoroughly efficient. When we remember the terribly epidemic nature of Cholera, the rapidity with which it spreads, and the fact that the case occurred in a public inn in a densely populated part of the town, where the sanitary arrangements were not of the best, the public have cause for more than ordinary satisfaction that the authorities were able to isolate the case, and deal with it so effectively.

Whooping Cough.—From this disease two deaths are recorded. It is a curious fact parents look upon whooping cough as a trifling complaint, and imagine no particular precautions are necessary; yet it is one of the most infectious of diseases, and persons suffering from it ought to be strictly isolated. Undoubtedly schools are the chief means of spreading this disease, though it should be remembered the school authorities are not to blame, but the parents who send their children. Whooping cough will probably, ere long, be included amongst the notifiable diseases.

Diarrhœa.—From this cause 8 deaths are recorded. Children, as usual, were the chief sufferers. This disease amongst children is almost always confined to those who are fed by hand, and is due to poisons developed during putrefactive changes in their food. In the hand feeding of children it is much the best to have two feeding bottles of the old boat shape, to keep one constantly in water, and to change them twice a day.—It is held by some authorities that a high death-rate from diarrhœa is a sure sign of accumulations of decomposing materials about the house, and bad sanitary surroundings.

Phthisis (Consumption).—From this cause we had 10 deaths last year. A special importance attaches to tubercular diseases, in view of the knowledge we now possess, that they are essentially due to the inroads of a specific micro-organism (Bacillus of Tuberculosis), the infection of which may certainly be communicated by means of *polluted air*, by the drinking of *unboiled milk* from tuberculous cows, and possibility by insufficiently cooked meat from tuberculous animals. Nothing is more certain in medical science than that circumstances of overcrowding, involving a foul atmosphere and the repeated breathing of the same air, in

predisposed persons, greatly favour the developement of consumption. If we can succeed in opening our courts and yards, in which no proper circulation of air occurs, in preventing over-crowding in single rooms, insisting that every house shall be free from damp, and carefully inspecting our milk and meat supplies, we shall do much to reduce the number of deaths from consumption. The knowledge that consumption is preventable, and that we may look for the ultimate extinction of this disease, adds interest to the evidence of the presence of the disease, that much remains to be done is shown by the fact that 7·3 per cent. of the total deaths in 1893, were due to this disease.

DEATHS IN PUBLIC INSTITUTIONS.

Cottage Hospital.—One death is recorded to have taken place in this institution. In February a young man was admitted suffering from considerable injuries and shock. He had been found on the Great Northern Railway suffering from grave injuries caused by a passing train. Amputation of the leg was performed, but he died three days later from shock to the system.

Union Workhouse.—In this institution there were 14 deaths, the average age at death being 68 years as compared with 53 in 1892. The only noticeable feature in these deaths was the unusual prevalence of chest diseases. An inmate, J. H., was taken ill on the 15th February and died on the 19th, having symptoms resembling influenza—pneumonia, this death was immediately followed by three deaths from similar causes.

Uncertified Deaths.—There were 7 uncertified deaths, 4 being children under one year.

Inquests.—The verdicts in the 7 inquests held were :—

1.....Accidentally drowned in the Canal.
2..... „ killed by Passing Train.
1..... „ „ falling off Cart.
1..... „ „ „ down Stairs.
1..... „ „ Suffocation.
1.....Found dead—Heart Disease.

INFECTIOUS DISEASES.

Notification Act.—The aim of the Notification Act is to give the Sanitary Authority immediate notice of infectious disease so that the earliest cases may be isolated, either at home or in hospital, before they have time to multiply themselves, and so that the cause may, if possible, be traced and remedied. It will be obvious the value of this Act depends upon the thoroughness with which it is carried out; for if one case is not reported the infection is spread, the isolation of other cases is rendered futile, and the rate-payers are put to the expense of dealing with the resulting cases. Further, the mildness of a case is no reason why the isolation should not be as strict as in a severe case, since it is quite as infectious, and in a susceptible subject may give rise to a severe form of the disease. The legislation which has been passed, interfering with private freedom, recognises clearly that in England no one is allowed the liberty of spreading disease to another, and recognises its duty to be "to fit as many as possible to survive." Although at present (out of London) the Notification of Infectious Diseases Act is optional, there is no doubt it will in the future be made compulsory, though it may be several sessions before Parliament can find time to re-model the Public Health Acts. The fact that the Notification Act is in force in every important Community in the Country, proves the value of the machinery for the prevention of the spread of infectious diseases, which Parliament has provided. This beneficent Act is to the undoubted advantage of the poorer classes, giving, as it does, to the Authority means of dealing promptly and effectively with an epidemic of infectious disease. I am aware it involves a considerable amount of trouble to the members of the medical profession, but they (almost unanimously) rightly regard that as nothing in comparison with the services they are able to render in checking the misery and suffering which these diseases entail, and they are willing to take their part in trying to lessen these evils. The only objection against the Act is the mistaken idea that the notification of the existence of infectious disease tends to undue interference with the business of shop-keepers and the liberty of private persons. It is quite true this Act interferes with the liberty of the subject, but only to prevent the spread of disease and perhaps death. Is it not reasonable and necessary that this restriction should be employed? I firmly believe that if unfortunately infectious disease break out on the premises of a tradesman the fact that the Sanitary Authority has charge of the isolation and preventive measures will (in time) be looked upon as the best guarantee to the public against danger of infection, and that they may go to the shop and make their purchases with absolute safety. Moreover, the notification of the disease in no way tends to its publication, for the knowledge is confined to one or two officials, and precautionary measures are quietly and unostentatiously adopted. In the near future the public, as well as the shop-keepers, will become educated to the undoubted advantages of this Act.

TABLE V.—*Gives the number of Infectious Cases reported since the adoption of the Infectious Diseases Notification Act.*

	1890	1891	1892	1893
Small Pox	0	0	0	0
Cholera	0	0	0	1
Diphtheria	12	12	3	22
Typhoid Fever	9	3	7	6
Scarlet „	14	10	26	22
Continued „	3	0	1	4
Puerperal „	0	4	0	1
Erysipelas	5	16	9	16
Diarrhœa	0	0	0	91
	43	43	46	162

TABLE VI.—*Shows number of Deaths from Infectious Diseases, with Infectious Diseases Death Rate, and General Death Rate.*

	1889	1890	1891	1892	1893
Small Pox	0	0	0	0	0
Cholera	0	0	0	0	1
Diphtheria	4	1	1	1	1
Typhoid Fever	2	3	0	0	3
Scarlet „	5	0	0	0	3
Puerperal „	0	0	4	0	1
Erysipelas „	0	0	0	2	0
Measles „	1	0	1	1	0
Whooping Cough	5	5	2	3	2
Number of Deaths	17	9	8	7	8
Infectious Diseases Death Rate ₱ 1000	1·73	0·92	0·75	0·66	0·75
General Death Rate	16·14	18·57	14·9	14·9	12·76

Whooping Cough.—On reference to Table 6 it will be seen this infectious disease (which does not come under the Notification Act) caused 3·18 per cent. of the deaths in 1889, and an average of 2·11 per cent. for the last five years. Scarlet fever, also an infectious desease, caused 3·18 per cent. of the deaths in 1889. In January, 1890, Scarlet Fever became notifiable, since which date there has not been a death from this cause. Has notification anything to do with this remarkable falling off in one case and not in the other?

Diphtheria.—Table 5 shows the number of cases reported to have increased from 3 in 1892 to 22 in 1893. Perhaps the following notes from my note book may help to account for this increase. "26 July, 1893. Received notice from the Registrar of the death, from Diphtheria, of a person living in the parish of Ordsall. On making enquiry the husband furnished me with the following particulars. 'Living in the house at the time of the death there were 10 children, my wife's sister and myself. 5 of the children attended daily, up to this date, Ordsall Board Schools, and 5 children also attended school on Sundays, 2 of the elder children went regularly to work. Neighbours came in and out in the usual way. I was unaware of the nature of the illness.'" During the twelve months preceding the 26th of July there were 3 cases of diphtheria reported and no death. During the five months following the 26th of July there were 19 cases of diphtheria reported and one death.

Typhoid Fever.—Tables 5 and 6 show 6 cases of typhoid reported and 3 deaths. The deaths from typhoid I have dealt with in the earlier portion of my report. I have reason to believe all the cases of this disease have not been reported, this is unfortunate for the patients and the public. The prevention of typhoid fever is one of the duties of the Authority, and to prevent any occurrence of disease we must know something of its nature, its causes, and its antidote. There seems to be an impression that the infection of typhoid can only be conveyed by the discharges, and that there is no danger in coming into contract with a person suffering from typhoid fever. Typhoid fever is "distinctly an infectious germ disease," and arises only when the spores of these specific microbes enter the body of a susceptible individual. The bacilli form spores inside the organs of one sick of the disease, especially the small intestines and lungs. The organisms are then discharged in their most resistant condition (spores) and may pass into leaky or faulty drains or cesspools, into the ground and into the water supplies, or they may pass into the atmosphere and be carried into dwelling-houses, or they may remain harmless for a long time; at last, however, these spores arrive in a body capable of being affected, and we then have typhoid fever developed. If the germs

are transported in the air, and inhaled and drawn into the lungs—we get septic or typhoid-pneumonia; if they come into contact with water, milk, or food, they may be conveyed thus to the human intestine. Typhoid fever can also be communicated to others by the decomposition of infected excreta, and outbreaks of this disease can usually be traced to direct infection or poisoning of air, water, milk, or food. The coming and going of epidemic diseases, such as typhoid, depend upon season, temperature, rainfall, atmospheric pressure, rising or falling of underground water, water supply, drainage and other sanitary conditions, but especially is the susceptibility of a person to contract this disease greatly increased if he lives in an atmosphere at all impregnated with sewer gases.

Isolation.—Although we have an excellently situated Isolation Hospital very few make use of it. I can only account for this unwillingness to take advantage of it by the fact that charges are made—except in special cases—which are prohibitive to a large number of people. I have always advised, and continue to do so, that no charge whatever be made. As, however, the advantages of the institution become better recognised, and when parents realize the fact, that by sending their children there all inconvenience and loss from having either to stop work or from having to keep the other children from school, will be avoided, it will be more used. Removal to Hospital is, I believe, in a majority of cases, a mere matter of persuasion and education. On this point (removal to Hospital) most patients seek the advice of their medical attendant, and he is a sort of court of appeal to whom they refer. I can only hope this court of appeal will see the advantage to their patients of isolation in the Borough Hospital.

Disinfection.—The arrangements for disinfection are not entirely satisfactory. The disinfecting oven at the Corporation Wharf is simply a square brick chamber, heated by a number of gas jets placed at the bottom, and unless carefully used is not effective. Dr. Parson has shown the almost utter impossibility of disinfecting blankets, bedding, etc., by dry heat. After eight hours exposure to dry heat, at a temperature of 230° F., the centre of 16 layers of blankets is only raised to 182° F. After twenty minutes exposure to steam the centre of 16 layers of blankets is raised to 212° F. Dry heat, as a disinfectant, is now practically discarded, for the following reasons: (1) slow penetration into bulky and badly conducting articles; (2) liability to scorching and actual burning, except under the greatest care; (3) dry heat is a less powerful germicide than moist heat; (4) inequality of the distribution of heat. Although many people prefer to fumigate their own rooms after infectious illness, it is much better that it should be done by an experienced person, who can see that it is thoroughly carried out.

HOUSING OF THE WORKING CLASSES.

During the year I have condemned 7 houses as unfit for human habitation, and drawn attention to the unsatisfactory condition of 5 others. The 7 houses condemned are now closed. No attempt has been made to render them habitable, although similar houses, in a like condition, condemned in 1892, have been made, not only habitable, but most satisfactory dwellings. One resolute person in Retford could set the law in motion for the better housing of the working classes, and the poor should be taught that the law is on their side, and that under the Housing of the Working Classes Act, they could recover damages if ill health or injury was directly caused by insanitary conditions. A house ill ventilated and damp, with insanitary surroundings, is a constant cause of chest diseases, especially consumption. Comparing the slum property in Retford with similar property in Nottingham and Sheffield, with which I am acquainted, the comparison is infinitely to the credit of Retford—nevertheless, I strongly recommend the Authority to look after the closed courts in Moorgate and Spital Hill. As an example of intelligent, economic, and satisfactory way of dealing with slum property, I would point to the Dog and Duck Yard, Moorgate. This yard was at one time a filthy, undrained, unventilated cul-de-sac, consisting of twelve dark, damp, dilapidated houses, closed at the rear, three foul cesspool-midden-privies, containing semi-fluid putrid excrement, house slops, and surface water, and several pigstyes, the yard surface was unpaved and uneven, with pools of filthy matter and house slops standing in the hollows, the houses were occupied by notorious poachers, who probably never paid any rent, and the yard was the constant abode of fever, and filth diseases. To-day this place is a model that might well be copied by other property owners. The houses are well lighted, ventilated, and dry, the yard pavement is level and drained, there are paved side-walks leading to the wash houses, coal houses, and pail closets, which are built on one side some little distance from the houses, which are well tenanted, and, so far as I am aware, there has not been a single case of infectious disease since these improvements were carried out by the present owners, Messrs. Hewitt Bros., Brewers, Grimsby.

SLAUGHTER HOUSES.

The question of slaughter houses in the Borough is one to which I would direct the attention of the Sanitary Committee. From a personal inspection of the majority of such premises, I feel convinced that it is quite within the mark to say that in many instances the accommodation provided for slaughtering is unsuited for the purpose and is a source of nuisance to the neigbourhood, indeed, there are not many, looking to their construction and surroundings, which could be considered suitable, and as meeting the

sanitary requirements of the present day: the chief objectionable features connected with them are proximity to dwellings, stables, privy-middens, and open drains, and unsuitable construction of the buildings and floors.

No doubt much may be said in excuse for the present state of matters, some of the slaughter houses, when originally built, were not surrounded by houses, but have been built round since, and it must be admitted that slaughter houses are absolutely necessary.

On the other hand, I may say there are a fair proportion of the slaughter houses quite free from the objections enumerated; they have been specially built for the purpose, and are suitable for the use intended.

OFFENSIVE TRADES.

During the past year no difficulty has arisen in connection with offensive trades; a requisition was received complaining of the offensive fumes caused by the burning of exhausted tan bark, the matter was enquired into, and the nuisance discontinued. I believe we have no register of offensive trades carried on in the Borough. I advise that in future, such trades be permitted and registered in accordance with the terms of the Public Health Act, Section 112.

UNSOUND FOOD.

In February the carcases of three sheep were seized, condemned, and destroyed, the owner was summoned before the Magistrates and they inflicted a fine of five shillings and costs. No other food was seized or condemned.

FOOD AND DRUGS ACT.

In Retford this act is carried out by an Inspector appointed by the County Council, and he makes his reports to that body.

WORKSHOPS AND FACTORIES.

The workshops have all been examined and registered, in some there was found over crowding and insufficient ventilation, in every case the ventilation has been made good, and the over crowding abated.

At one factory the erection of an outside iron staircase for escape in case of fire was advised. The staircase is now erected.

DAIRIES, COWSHEDS, AND MILKSHOPS.

Under the Dairies, Cowsheds, and Milkshops order, a certain amount of work has been done. An Inspector has been appointed; the register, which had been allowed to fall somewhat behind, has been revised, and a detailed inspection made of the various cowsheds and milkshops. This inspection cannot be said to have shown them to be, by any means, in a satisfactory state; many of them consist of old tumble-down sheds, without proper drainage, means of ventilation, or light, while floors are so badly constructed that cleanliness is an impossibility, and filth accumulates in every corner; some are situated in common yards or in close proximity to dwellings, where from the accumulation of manure, unless the greatest care is exercised, a nuisance is undoubtedly caused. Milk has a remarkable power of absorbing gases and vapours, organic and in-organic, and forms a most suitable cultivating medium for low forms of life; and forming as it does, so large a proportion of the daily food of infants, young children, and invalids of all ages, the great importance of its purity becomes evident. I hope the need of effective inspection and supervision of the dairies, milkshops, and cowsheds will not be overlooked. The requirements of a sanitary cowshed are surely not unreasonable, good drainage, light, ventilation, breathing space (500 cubic feet per cow), and cleanliness.

CANAL BOATS AND LODGING HOUSES.

The Inspector reports, there are 30 boats on the register, of these none were added to the list during the year; 30 inspections were made, in no case was there illness or any contravention of the act. The cabins were well kept and clean, generally occupied by a man and boy. Women do not now make the voyages as formerly.

Lodging Houses.—There are 5 on the register, no additions have been made during the year, 10 night inspections were made, on one occasion there was over-crowding, no action was taken.

Until we either adopt the model bye laws for common lodging houses (which I advise), or draw up bye laws of our own, we cannot deal effectually with lodging houses. This is a serious defect in the sanitary organisation of the Borough and I cannot too strongly press the matter on the attention of the Authority.

METEOROLOGICAL REMARKS, 1893.

I am indebted to Mrs. Overend, of West Retford House, for the following register of the rainfall.

TABLE VII.—*Rainfall in 1893, (observations taken at West Retford House, 63 feet above sea level).*

Month.	Total depth (inches).	Greatest fall in 24 hours. Depth.	Greatest fall in 24 hours. Date.	Number of days on which rain fell
January	1·13	·21	26	12
February	2·82	·61	22	14
March	·50	·15	1	6
April	·33	·16	17	4
May	1·48	·65	17	9
June	·79	·43	27	4
July	2·04	·45	3	12
August	2·30	·41	1	13
September	·89	·21	9	9
October	1·56	·64	7	11
November	1·43	·48	12	12
December	2·55	·79	13	13
Total	17·82			119

There were only four days on which there fell more than half-an-inch of rain, and on no day did there fall one inch. The total rainfall for the year, 17·82 inches, is considerably below the average. The average rainfall for England may be taken at 30·0 inches per annum, and varies from 25 inches in the Eastern Counties to 200 inches at Stye Head Pass in Cumberland. Upwards of 8 millions of tons of rain fell in the Borough during the year—if this had been collected it would have given 300 gallons per person per day, deductions having been made for evaporation.

The Borough Surveyor and Sanitary Inspector was good enough to furnish me with the following particulars :—

TABLE VIII.—*Showing abatement of sanitary defects during 1891, 1892, and 1893,*

	Total	1891	1892	1893
Middens, number abolished	178	75	54	49
Privies „ „	234	109	67	58
Cesspools „ „	114	15	31	68
Pail Closets „ formed	260	114	70	76
Water „ „ „	41	22	4	15
Earth „ „ „	3	0	1	2
Middens „ „	5	0	3	2
Privies „ „	6	0	3	3
Inspection Chambers „	54	26	19	9
Disconnections made	130	55	31	44
Gullies, new, fixed	369	158	82	129
Drain Ventilators „	24	12	7	5
Houses supplied with Town's Water	110	43	27	40
Drains, new, yards, formed	2963	1195	834	934
Drains, old, abolished	1443	199	574	670

Plans Passed.	Buildings Erected.
For 37 Houses	27 Houses
„ 2 Villas	1 Villa
„ 2 Shops	2 Shops
„ 2 Additions to Houses	5 Additions to Houses
„ 2 New Streets	3 Sets of Stabling
„ 1 Laundry	1 Slaughter House
„ 1 Addition to Factory	1 Addition to Factory
„ 1 „ School	1 County Police Station

EXCREMENT AND REFUSE COLLECTION AND DISPOSAL.

There are two systems of refuse removal, (1) Where the ashes, dung, dust, refuse food, street sweepings, human excrement, after being deposited in privies, cesspools, or pail closets, is removed by mechanical labour. This is known as the Conservancy System. (2) Where the ashes, dung, dust, refuse food, and street sweepings are removed by scavenging, and the human excreta, with the liquid refuse, is taken away by drains and sewers to some spot outside the town. This is the Water Carriage System.

The Water Carriage System is the best for both the rich and the poor, it is also the cheapest. Retford is not and probably never will be wholly a water carriage town, it must, at least for very many years, retain a good proportion of the pail closets.

PRIVY MIDDENS.

Three years ago we had in Retford a large number of privy middens uncovered, allowing rain to enter, having a large capacity, with foul, liquid, decomposing contents, situated in yards close to dwellings, in such a condition as to call for immediate action. It will be seen on reference to Table 8 that during the last three years 412 of these positive dangers to health were abolished

PAIL CLOSETS.

Next to the water carriage the pail system is the best way of removing excretal refuse, it is costly, liable to abuse, and its success entirely depends upon careful inspection, organisation, and efficient scavenging. The cost is directly proportional to the frequency of removal, so that there must always be an inducement to economise at the risk of the health of the town.

I strongly advise the Authority to adopt one uniform size and shape, both of closet and pail. The structure of the closet need only be very simple, it should be well roofed and louvered for ventilation, its floor being raised 6 inches above the level of adjoining ground, and flagged or paved, and the pail placed under the seat. The pail should be made of oak, well tarred, its capacity should not exceed two cubic feet, and it should be retarred once every three months. The scavenger should be provided with lids to fit on the pails before removal, otherwise the contents are liable to be splashed out and cause a nuisance.

NUISANCE ABATEMENT.

The Notification Act is of great value to the Authority in many ways, and in none more so than in bringing under the notice of the Sanitary Inspector defects in the sanitary arrangements of the dwellings where cases of infectious disease have occurred, but apart from nuisances reported and discovered in the ordinary course of duty, systematic inspection should be made, and especially would a survey be valuable to the Authority in the event of any serious epidemic disease. The survey should include the enumeration of water closets, pail closets, privies, cesspools, untrapped connections, damp and unhealthy houses, etc., and would constitute a valuable record for reference ; the record could be easily maintained by noting additions, removals, and alterations. We must remember that where there has been a case of cholera experience teaches us it is probable a more serious epidemic may follow.

The Council must be aware of the immense amount of sanitary work accomplished, which will be of permanent value to the town. The sanitary history of Retford, for the past three years, has been one of continuance, steady and substantial progress, which is evidenced by the annual reports which have been submitted to the members of the Authority. The Sanitary Committee cannot be other than gratified when they look at the death-rate, which has decreased from 18·5 per 1,000 per annum in 1890 to 12·96 in 1893, to put it in other words, if the death-rate had remained at 18·5 we should have had, during the last three years, 143 more deaths, and I think it a reasonable deduction to attribute the saving of these lives to the action of the Authority in safeguarding the town against influences having an unfavourable effect on health and disease.

LITTLE GRINGLEY.

Since writing the earlier portion of my report I have decided to make a special communication to the Sanitary Committee, dealing with this hamlet.

In conclusion, I beg to thank the Committee for their support and loyalty.

I am,
Gentlemen,
Your obedient servant,
WALTER SPENCER.