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Contributors

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Report

FOR THE YEAR 1897,

PRESENTED TO THE

Spilsby Rural District Council

BY

FRANCIS J. WALKER, M.D., L.S.Sc.,

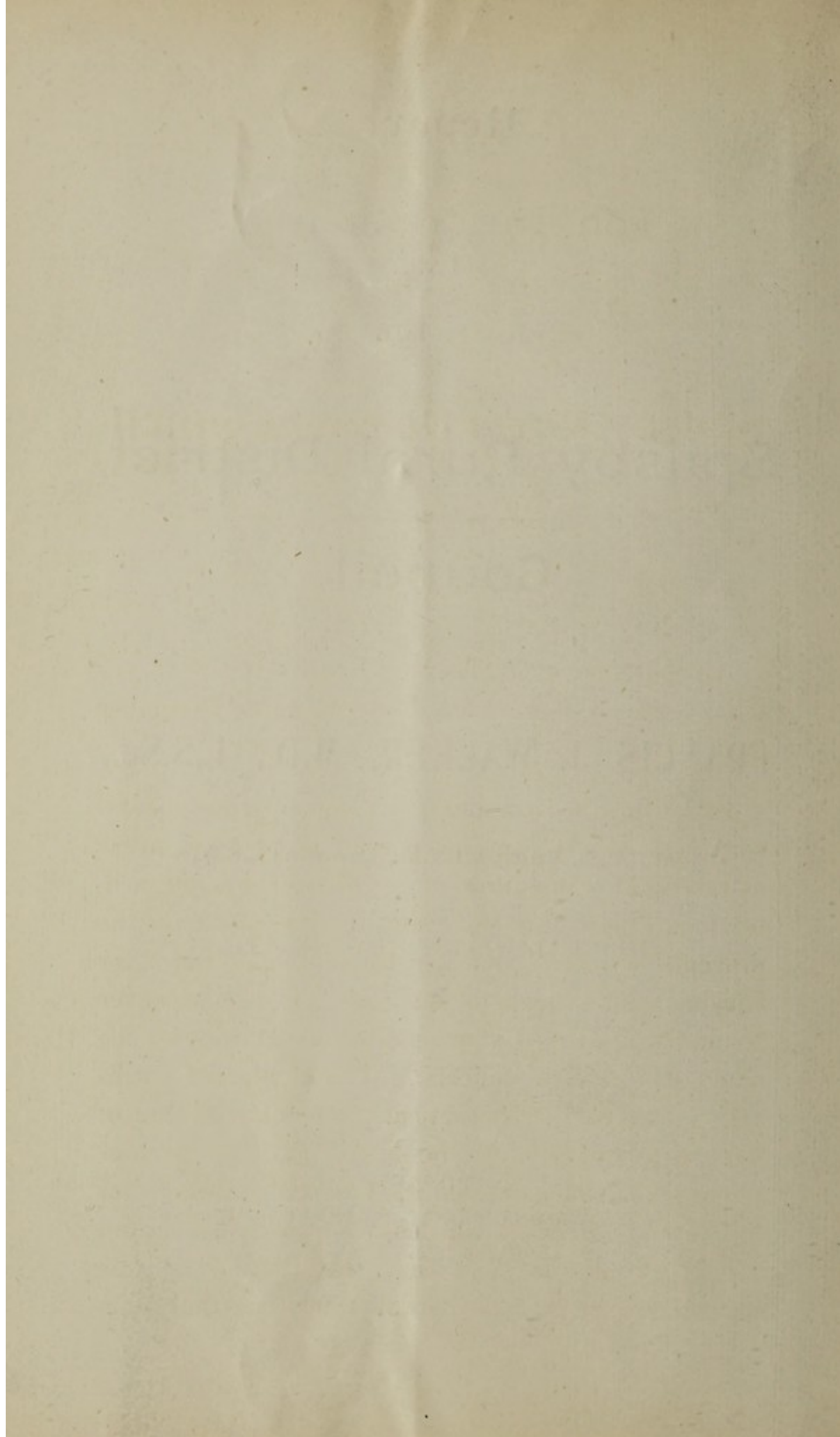
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MEDICAL OFFICER OF HEALTH.

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1898.



TO THE

Spilsby Rural District Council.



GENTLEMEN,

As your Medical Officer of Health I beg to lay before you my Report for the year ending December 31st, 1897.

Following the example of its immediate predecessor, the year that has just passed away may, so far as the sanitary condition of our district is concerned, be looked upon as uneventful. Diseases of the preventible class continue to crop up, but ever varying with regard to time and place, and never so numerous or so concentrated as to deserve the name of a serious epidemic. The number of notifications received was practically the same as that of last year, and it is to be hoped that by prompt attention to every case on its first notification that the limited spread may at least be partly accounted for. It will be seen that the Death-rate was somewhat higher than that of 1896, but that it is

still below the average of the last ten years, and that the number of Births shows a still further decrease.

Following the usual plan, the first part of my report will treat of the infectious diseases that have occurred during the year, together with the means taken for preventing their spread; the second, of the various sanitary works that have been accomplished; and the third, of vital statistics.

EPIDEMIC DISEASES.

MEASLES.—This disease was very prevalent during most of 1896 and the first half of 1897, since when it seems to have disappeared from our midst. During this period of eighteen months, Measles seems to have travelled pretty well over the whole of the district, and doubtless the number of persons attacked was considerable, but owing to the non-notifiability of this disease, this is a point which does not admit of actual proof. The mortality was I am glad to say small, as during 1896 no death was registered, and there were only two during the first six months of this year, one being in March and the other in April. Each victim was under two years of age, a time of life when statistics prove the disease to be especially fatal. Measles is very infectious, more particularly during the first few days of illness, and consequently an epidemic is most difficult of prevention, matters being made worse by the popular idea amongst mothers, that a child must have the complaint sometime, and there-

fore the sooner the better. It is now a well established fact that Measles is essentially a disease of early life, and that by far the greatest number of persons infected are under five, beyond which age the liability to infection becomes diminished. Hence it follows that every endeavour should be made to guard the child against infection as long as possible, for the greater the delay, not only the less the risk of contracting the disease, but also the less the danger to life if it should happen to be contracted.

SCARLET FEVER.—It is gratifying to be able to record a steady improvement in the incidence of this disease, the number of notifications received being the smallest since the passing of the Infectious Diseases (Notification) Act eight years ago, and not a single death being registered. Altogether 27 cases were notified, and these were for the most part concentrated in four limited and widely separated localities. The first outbreak occurred in June in Wainfleet Saint Mary, in two contiguous cottages situated on the Fen-side of the parish. The second, in July, in Toynton All Saints, where the type of disease was especially mild, though the number affected was 10. The third occurred in October, in Friskney Fen; and the fourth, in December, in East Keal. This last outbreak bade fair to be the most serious of the four, since the centre of dissemination seemed to be the National School, to which a child had returned while still in a condition to give off infection. In this instance it was found necessary

promptly to close the school, and, since the last notification was dated December 18th, I encourage the hope that the remedy has proved successful. The remaining cases were isolated, and one was clearly imported into the district.

WHOOPING COUGH.—This disease not being notifiable, one has to depend on hearsay for information, and from this source I ascertained that in the months of July and August it prevailed in Stickford, Sutton, Great Steeping, and West Keal. Two deaths were registered under this heading, one at Stickford aged three weeks, and another at Sutton aged thirteen months.

DIPHTHERIA.—Of this disease 27 notifications have been received, and of these 10 referred to isolated cases. These 10 occurred in different parts of the district and during different times of the year, and of these two proved fatal, one at East Kirkby in May, and the other at Bonthorpe in July. This latter case was imported from Grimsby, as the patient, a child, was taken ill the day after his arrival at Bonthorpe, and died six days afterwards. The remaining notifications referred to two outbreaks, the one at Sausthorpe in August, and the other at East Keal in September. The Sausthorpe epidemic first came under my notice on July 13th, and from then to August 8th I received 10 notifications. Upon investigation I found that other children had previously been suffering from sore throat, but after careful personal examination I was

unable to satisfy myself as to its true nature. Throughout the epidemic the disease was mild in character, and every case ended in recovery. During the same time I inspected children in some of the adjoining villages (Partney and Aswardby), and although I found several suffering from a form of throat affection of an infectious character, I was still unable to satisfy myself that the disease was of the nature of true Diphtheria. All the houses inhabited by these Diphtheritic patients were thoroughly stoved with sulphur, and I am thankful to say the outbreak soon came to an end. The Keal epidemic, which consisted of seven cases, was of the same mild character as that of Sausthorpe, and in every case the patient recovered.

ENTERIC FEVER.—Seven cases of Enteric or Typhoid Fever have been notified. They were all solitary, and out of these three were imported, thus leaving us but four to account for as having arisen within the area of this wide district. The first of these four occurred in January in Halton Holegate, and its origin could not be discovered. The drinking water was obtained from a running stream near, and on analysis it was not found to be unsatisfactory. The cottage, although small, was isolated and fairly well built. The second occurred in June in Sutterby, a small village on the wolds, which up to the present time has always appeared to be remarkably healthy. The water supply on analysis was good, and here again it was impossible to fix upon the immediate

cause. This proved to be the only fatal case. The third was at Winthorpe in September, where the dwelling was much dilapidated and the sanitary arrangements very defective. The fourth occurred in an outlying portion of Sutton in October, and here too the premises and surroundings were unsanitary.

ERYSIPELAS.—I received nine notifications of scattered instances of this disease. This number is somewhat less than the average of the last five years. Most of the cases were mild, but one was associated with serious complications and ended fatally.

DIARRHŒA.—This complaint did not come under my special notice during the year. Only one death was recorded under this heading, that of an infant aged 3 months.

INFLUENZA.—This disease still hangs about the district and is credited with causing three deaths, two in March and one in August. During the latter part of December this unwelcome visitant began again to show itself, especially in the Spilsby neighbourhood, and from its characteristics is I fear about to assume a more severe and more epidemic form.

MUMPS.—During the month of January Mumps, which proved to be highly infectious, broke out into a rather extensive epidemic. The centre of infection was a ball held at the Masonic Hall, Spilsby, on

January 7th, for out of the number assembled thereat, no less than 16 subsequently fell ill with the complaint; and out of these, 12 manifested the earlier symptoms 18 days afterwards, the remaining four, 3 days later, thus clearly showing that the period of incubation of Mumps is a long one, varying in fact from 18 to 21 days. The disease is generally an affection of young children, but in this case all the sufferers were adults, and some were even beyond the middle period of life. Oddly enough, although the disease appeared so infectious on the night of the ball, it did not spread very extensively afterwards, for from these 16 cases I only heard of five others. The heat of the room and the time of night may possibly have had a favouring influence upon the receptibility of the specific poison.

In the course of the year I have received 69 notifications, only 3 less than last year. Their distribution under the several headings will be seen in the following table:—

Year.	Small Pox.	Scarlet Fever.	Diphtheria.	Membranous Croup.	Typhus Fever.	Enteric or Typhoid Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Total.
1896		31	20			4	1		1		15	72
1897		27	26			7					9	69

SANITARY WORK.

SPILSBY.—So far back as 1894 I drew attention to the want of proper drainage for the houses situated in what is known as Masonic Lane, and I am glad to be able to report that this unsanitary state of things has been at last efficiently remedied. A new drain has been laid along the entire length of the street, with which every house has been properly connected. This drain has been continued for a distance of about 200 yards to the outfall, with the necessary manholes and receiving tank at its termination.

CANDLESBY.—The old tile drain in this parish having become blocked, it has been taken up and a 6-inch pipe sewer laid from the outfall to the main street, and the houses connected therewith.

BILSBY.—The Wold Grift Drain as it passes through the parish of Bilsby has again been a special source of trouble to your officials. On two occasions, August 7th and October 21st, in company with your Surveyor, after receiving urgent complaints, I visited the locality, and inspected the drain complained of, and after each visit I issued to your Authority a special report. A copy of each of these reports was forwarded to the Local Government Board, with the result that, on November 25th, Colonel Coke, one of Her Majesty's Inspectors, visited the locality, and on his return made an official report. On December 20th the Local Government Board sent a letter to your Authority, from

which it is necessary for me on this present occasion to quote only an extract. The letter states as follows:—"Colonel Coke finds that crude sewage is
 "discharged into the stream in question at various
 "points in its course through Alford, with the result
 "that the stream is very seriously polluted. The
 "Board is also advised that the expedients which
 "have been adopted by the Alford Urban District
 "Council with the view of preventing or abating
 "the nuisance, such as the placing of small coke
 "filters, slabs of alumino-ferric, &c., in the course
 "of the stream, are absolutely worthless, and that
 "the only effectual remedy for the existing evil is
 "the provision of a proper system of sewerage and
 "sewage disposal for the town, whereby all the
 "sewage which is now discharged into the stream
 "would be intercepted, and the effluent properly
 "treated on land." It is gratifying to find that the Local Government Board Inspector substantiates all the complaints which we have now for some years been making with regard to the Bilsby nuisance, and supports all the recommendations that we have been suggesting for the remedying of the same.

FRISKNEY.—I am sorry to say that the operations for the procuring of drinking water for this parish, which were inaugurated in December, 1896, and more fully carried out during January, 1897, have ended in failure. Water abundant in quantity was found at a depth of 84 feet, but in quality so impregnated with the constituents of sea water as to

be totally unfit for drinking purposes. These experiments seem to prove that the subsoil of Friskney is of such a nature that wholesome potable water cannot be obtained therefrom at a reasonable depth. The need however for good water still remains, and one can only hope that the time is not far distant when the dwellers in this locality may be able to obtain pure water brought to them from a distance.

COW BANK.—During the year a complaint was made to your Authority of the pollution of Jockey Drain and Cow Bank Drain, caused by the non-purification of the effluent from the Skegness Sewage Farm. A letter was sent to the Skegness Urban District Council drawing attention to the matter, and we hope there will be no further cause of complaint.

The question of the over-crowded state of the burial grounds in Stickney and Partney seems at length on the eve of solution. Letters have been received from the Secretary of State giving notice that the Stickney churchyard is to be closed forthwith, and that of Partney after June 30th, and the two several Parish Councils are now taking steps for providing the necessary increased burial ground.

The old Northolme churchyard, which has been reported upon as full and unfit to receive further burials, still continues to be used, and the matter requires immediate attention.

The following is the Surveyor and Inspector's Report for the year 1897.

Number of nuisances reported	163
Number abated without formal notice	72
Number of formal notices served... ..	91
Number unabated at the close of the year ...	5
Total number abated	158
Number of legal proceedings taken	1
Houses reported unfit for human habitation ...	3
Houses placed in habitable repair	2
Houses pulled down	1
Houses rebuilt	1
Defective drainage to houses remedied	29
New drainage to houses	13
New water supply to houses	7
Defective water supply remedied	9
Wells sunk for water supply	7
Wells cleansed and water supply improved ...	5
New earth closets erected... ..	9
Old privy vaults filled in and earth closets inserted	6
Old privies repaired and ventilated	5
New water closets erected... ..	5
New dust bins erected	4
Old dust bins repaired and covered in	9
Cases of overcrowding reported	7
Cases of overcrowding abated	6
Houses cleansed and disinfected	26
Slaughter-houses erected	1
Slaughter-houses inspected	14
Dairies, cowsheds, and milkshops inspected ...	61
Samples of water taken for analysis	21
Buildings erected under the Byelaws—Spilsby 5, Sutton 9, Burgh 2, Wainfleet 4, Winthorpe 2...	22
Buildings erected in other parts of the district ...	13

Out of the seven cases of overcrowding, six were abated, four by the families removing into larger

houses, and two by reducing the number of inmates. One remained unabated at the close of the year, but a new bedroom is in process of being added to the house.

I have analysed 21 samples of drinking water, and the results were that in 6 cases the water was classed as good, in 9 as suspicious, and in 6 as bad.

The case in which legal proceedings were taken was that of a man carrying on the trade of a milk seller on his premises without a license. He was fined £2 5s. 6d including costs.

No complaint has been made to me of any offensive trade being carried on in the district, and no food unfit for the use of man has been brought under my notice.

VITAL STATISTICS.

In 1897 the Births were 459, and the Deaths 321. The Birth-rate was 21·53 per 1000 population, and was 2·67 below the average of the last ten years 1887—1896. The Death-rate was 15·05, or slightly under the average of the last ten years. The average relation of Births to Deaths is 1·6 to 1; for 1897 1·4 to 1.

The Birth-rate in England and Wales in 1897 was 29·7 per 1000 of the population, which is equal to the rate in 1896, and lower than that in any other year on record excepting 1894. Compared with the average in the ten years 1887—1896 the Birth-rate in 1897 shows a decrease of 1·0 per 1000. The Death-rate was 17·4 per 1000, which is lower than

the rate in any previous year excepting 1894 and 1896, and 1·2 below the mean rate in the ten years 1887—1896.

The Births were distributed according to quarters as follows:—

	LEGITIMATE.		ILLEGITIMATE.	
	MALES.	FEMALES.	MALES.	FEMALES.
Quarter ending March 31st	65	53	5	2
Quarter ending June 30th	55	45	3	3
Quarter ending Sept. 30th	45	56	5	1
Quarter ending Dec. 31st	59	55	5	2
	<hr/> 224	<hr/> 209	<hr/> 18	<hr/> 8
Total Legitimate ...	433	Total Males ...	...	242
„ Illegitimate ...	26	„ Females ...	...	217
	<hr/>		<hr/>	<hr/>
Grand Total	459	Grand Total	459	

For purposes of comparison with former reports, I shall follow the same plan as heretofore adopted, and arrange the deaths in two tables. The first gives the percentage according to age, the second the actual number according to class of disease.

Under	1897.	Average per centage for 10 years, 1887-1896.
1 year	47 or 14·65 per cent.	16·33 per cent.
2 „	9 „ 2·81	3·70 „
5 „	3 „ ·94	2·78 „
10 „	6 „ 1·90	2·41 „
15 „	5 „ 1·54	1·73 „
20 „	7 „ 2·15	2·59 „
30 „	18 „ 5·61	4·92 „
40 „	10 „ 3·11	4·20 „
50 „	15 „ 4·68	5·25 „
60 „	28 „ 9·00	7·81 „
70 „	46 „ 14·34	13·29 „
80 „	69 „ 21·51	20·32 „
90 „	54 „ 16·51	12·39 „
100 „	4 „ 1·25	1·83 „

The percentage of deaths under one year was 1·65 below the average of the last ten years. Out of the 459 births, 47 or 10·24 per cent. died during the first year of life. The percentage of deaths above 60 was 53·61.

Class	1896.	1897.
I. Zymotic Diseases	8	12
II. Cancerous Diseases	23	21
III. Tubercular Diseases	33	28
IV. Diseases of Brain, &c.	46	37
V. „ Heart, &c.	43	42
VI. „ Lungs, &c.	35	51
VII. „ Stomach, Liver, &c.	15	15
VIII. „ Kidneys, &c.	7	15
IX. „ Women and Childbirth	4	1
X. „ Skin &c.	0	0
XI. Debility, Atrophy, and Marasmus	9	10
XII. Developmental Diseases	10	11
XIII. Old Age	39	55
XIV. Violent Deaths... ..	8	12
XV. Causes not specified	7	11

The 12 deaths in the class of Zymotic Diseases were made up of Measles 2, Diphtheria 2, Whooping Cough 2, Enteric Fever 1, Diarrhœa 1, Erysipelas 1, and Influenza 3, and these have already been alluded to. The Death-rate per 1000 of the seven principal Zymotic Diseases amounted to ·37.

The Death-rate for England and Wales for the same Zymotic Diseases was 2·15 per 1000, against 2·17 and 2·21 respectively in the preceding two years.

TABLE of DEATHS from the Seven Principal Zymotic Diseases during the last ten years.

	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.
Small Pox ...	—	—	—	—	—	—	—	—	—	—
Measles ...	—	—	1	—	—	4	3	3	—	2
Scarlet Fever ...	3	1	—	2	1	—	5	2	1	—
Diphtheria ...	3	1	—	1	3	—	3	3	1	2
Whooping Cough ...	2	5	13	—	1	8	2	1	1	2
Fever, Typhus ...	—	—	—	—	—	—	—	—	—	—
" Typhoid or Enteric ...	3	—	1	6	1	3	1	2	3	1
" Other or doubtful ...	—	—	—	—	—	1	—	—	—	—
Diarrhoea and Dysentery ...	3	2	—	—	1	3	—	1	1	1
Total Deaths from the 7 principal Zymotic Diseases ...	14	9	15	9	7	19	14	12	7	8
Deaths from other causes ...	416	392	420	442	342	369	310	325	290	313
Total Deaths ...	430	401	435	451	349	388	324	337	297	321
Death-rate per 1000 Zymotic Diseases	·55	·36	·60	·36	·29	·79	·58	·49	·32	·37
Death-rate per 1000 from all causes	17·17	16·15	17·67	18·47	14·39	16·10	13·53	13·82	13·89	15·05
Death-rate for England and Wales	17·8	17·9	19·2	20·2	19·0	19·2	16·6	18·7	17·1	17·4

The severe epidemics of Typhoid Fever, which have occurred during the past year at Maidstone and King's Lynn, have brought the subject of water-supply prominently before the public, and with such warnings before them it behoves every Sanitary Authority to take a lesson, and make a careful enquiry into the conditions of the water-supply of the particular district under its care. I have already alluded in this report to the inability to obtain good drinking water for the large village of Friskney, and some other villages in the same part of the district often experience a like difficulty, especially during a dry season. The subsoil of the fen district seems to be devoid of potable water, and the people who are obliged to live in such locality have to depend either on soft water collected in cisterns, or on water obtained from the drains which were some years ago artificially made for the purpose of draining the land. Even both these sources of supply are liable to fail during a dry season, and then water, often of impure quality, has to be fetched from a considerable distance. From the Friskney experiment it seems that water fit for drinking purposes is not to be obtained by ordinary means in this portion of the district, and it now becomes a serious consideration how to make this large and sparsely populated area more sanitary by the bringing of pure water within the reach of the inhabitants. Many of the wold villages are I am glad to say naturally supplied, at a reasonable depth, with pure water, and it must be the constant endeavour of

your officials to try by remedying all sanitary defects whenever discovered, to keep in a state of purity what nature has so kindly supplied in abundance and near at hand.

The town of Spilsby, standing as it does on a sandy subsoil, is naturally blessed with a pure and abundant supply of water, obtainable almost anywhere at a depth of from 10 to 20 feet. Unfortunately the nearness of the springs to the surface allows of the water being easily polluted, especially too since old large midden privy vaults and faulty brick drains were in days gone by pretty generally constructed. Since the establishment of your Authority many of these sources of pollution have been done away with, for now no new large underground receptacles for filth are allowed, and all drains have to be laid in carefully cemented sanitary pipes. By these means the source of recent pollution has been to a certain extent prevented; but the cleansing of subsoil, which has been subject to contamination for a considerable period, is a very slow process. The houses of Spilsby being supplied for the most part with separate wells, there is not much fear of typhoid fever assuming an epidemic form excepting through an infected milk supply, but we are in constant danger of limited outbreaks, if by chance the excretion from a patient who has recently suffered from the disease gains access to the water supplying one of these wells. The only way to prevent these outbreaks occurring is if possible by obtaining a supply of pure water from some of

the surrounding hills, and by inaugurating a system of water-works. Even this condition of things requires carefully safeguarding, and all ingress of surface water by means of ditches and land-drains, which are liable to carry pollution, must be sedulously prevented, otherwise the last state of things is worse than the first, for what in the one instance leads to a limited outbreak, in the other leads to a fearful epidemic.

I have the honour to be, Gentlemen,

Your obedient Servant,

FRANCIS J. WALKER,

Medical Officer of Health.

SPILSBY,

February, 1898.

APPENDIX.

(A) TABLE of DEATHS during the year 1897, in the SPILSBY Rural Sanitary District, classified according to Diseases, Ages, and Localities.

Names of Localities adopted for the purpose of these Statistics ; public institutions being shown as separate localities. (Columns for Population and Births are in Table B.)	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.						
	At all ages.	Under 1 year.	1 and under 5	5 and under 15	15 and under 25.	25 and under 65	65 and upwards
Registration Sub-District.							
SPILSBY	71	8	2	4	5	21	31
<i>The Workhouse</i>	16	...	...	...	1	2	13
ALFORD	67	11	4	2	4	19	27
WAINFLEET.....	63	8	1	1	3	19	31
BURGH	69	9	2	2	1	20	35
STICKNEY	35	11	3	2	1	8	10
Totals	321	47	12	11	15	89	147

TABLE OF DEATHS, ETC.—*continued.*

MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.																						
	Smallpox.	Scarlatina.	Diphtheria.	Membranous Group.	FEVERS.					Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhoea and Dysentery.	Rheumatic Fever.	Phthisis.	Bronchitis, Pneumonia, and Pleurisy.	Heart Disease.	Influenza.	Injuries.	All other Diseases.	Total.
					Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.													
Under 5	4	..	..	..	6	10
5 upwds	1	3	2	9	1	4	41	61
Under 5
5 upwds	3	4	..	..	..	9	16
Under 5	1	1	1	1	..	..	..	..	..	..	12	15
5 upwds	1	..	..	1	..	..	..	1	..	..	..	..	..	7	4	7	2	2	27	52
Under 5	9	9
5 upwds	6	5	13	..	3	27	54
Under 5	11	11
5 upwds	2	14	5	..	1	36	58
Under 5	1	1	1	..	..	..	5	..	..	..	7	14
5 upwds	1	..	..	..	..	..	..	..	..	..	..	..	..	1	2	2	..	2	13	21
T.L. {	2	..	..	1	..	..	..	..	2	2	2	1	..	22	9	36	3	12	45	59
	1	..	31	36	3	12	153	262

(B) TABLE of POPULATION, BIRTHS, and of NEW CASES of INFECTIOUS SICKNESS, coming to the knowledge of the Medical Officer of Health, during the year 1897, in the SPILSBY Rural Sanitary District; classified according to Diseases, Ages and Localities.

New Cases of Sickness in each Locality, coming to the knowledge of the Medical Officer of Health.																
NAMES OF LOCALITIES adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.	POPULATION AT ALL AGES.			Registered Births. (d.)	Aged under 5 or over 5. (e.)	Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	FEVERS.					Cholera.	Erysipelas.
	Census, 1891. (b.)	Estimated to middle of 1897. (c.)								Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.		
Registration Sub-District.																
SPILSBY	6471	6180	126	Under 5 5 upwds	...	8	2	...	...	...	2	...	...	...	...	...
<i>The Workhouse</i> ...	—	—	8	Under 5 5 upwds	...	...	17	...	...	...	...	...	...	...	...	...
ALFORD	4241	4129	103	Under 5 5 upwds	...	...	2	...	...	...	...	...	...	...	...	4
WAINFLEET	4937	4774	96	Under 5 5 upwds	...	1 2	3	...	...	...	1	...	...	...	...	2
BURGH.....	3678	3408	68	Under 5 5 upwds	...	...	...	...	...	...	1	...	...	...	...	1
STICKNEY	2815	2830	58	Under 5 5 upwds	...	1 2	2	...	...	...	...	...	...	...	...	2
Totals	22,142	21,321	459	Under 5 5 upwds	...	10 17	2 24	...	...	...	7	...	...	...	...	9

APPENDIX.

RAINFALL FOR 1897.

Month.	No. of days on which '01 or more fell.	Amount in inches.	Average for last 22 years.
January	20	2.43	2.03
February	16	3.82	1.90
March	18	2.85	1.74
April	18	1.37	1.69
May	12	1.48	1.98
June.....	12	1.91	2.15
July	9	.81	3.09
August.....	14	3.02	2.70
September	15	2.79	2.85
October	15	.84	3.44
November	21	1.53	2.99
December	18	1.79	2.48
Total	188	24.64	