[Report 1903] / Medical Officer of Health, Luton County Borough.

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BOROUGH OF LUTON.

REPORT of the Medical Officer of Health, MR. HORACE SWORDER, L.R.C.P., M.R.C.S., for the Year ended December 31st, 1903, presented to the Sanitary Committee on February 19th, 1904, and ordered to be printed.

OFFICE OF THE MEDICAL OFFICER OF HEALTH,
DURHAM HOUSE, LUTON,

JANUARY 28TH, 1904.

GENTLEMEN,

I beg to lay before you my Report for the Year ended December 31st, 1903, being my Twenty-fifth Annual Report.

During the Year, 979 Births and 520 Deaths have been registered, equal to Annual Rates of 26.1 and 13.8 per 1000 respectively. The Births exceeded the Deaths by 459.

There were 125 Deaths under 1 year.
,, ,, 58 ,, between 1 and 5 years.
,, ,, 337 ,, from 5 years and upwards.

The Deaths were distributed as follows:

Small Pox	0	Convulsive, Ditto	16
Measles	17	Hernia	1
Scarlet Fever	0	Senile	35
Diphtheria, Croup	2	Injuries	10
Whooping Cough	9	Bowel Disease	12
Fevers	1	Urinary Organs	14
Diarrhœa, &c.	14	Nervous System, Paralysis, Fits, &c.	48
Rheumatic Fever	0	Liver Disease	4
Erysipelas	0	Suicide	0
Pyœmia	0	Confinement, Puerperal Fever, &c.	4
Phthisis	38	Premature Birth	16
Scrofula, Struma	6	Influenza	2
Bronchitis, Pneumonia, Pleurisy	97	Other Diseases	57
Heart Disease	52		
Cancer	39	Total	520
Syphilis	1		
Wasting, Infantile	25		

Forty-three Deaths were referred to the seven principal Zymotic Diseases, viz.: Seventeen to Measles, two to Diphtheria, 9 to Whooping Cough, one to Typhoid Fever, and fourteen to Epidemic Diarrhœa. This is equal to a Zymotic Rate of 1·1 per 1000.

SMALL POX.—It is with a feeling of thankfulness and satisfaction that I am able to record the fact that no death was referred to this disease during the year, and further, that no case was even notified. Numerous outbreaks of Small Pox have been recorded throughout the kingdom during the year, especially in the Northern towns; rather a large one occurring in a town much nearer home, gave us some anxiety. Tramps appear to have been the originators of the initial cases in most of the outbreaks. How we remained free is a mystery, considering that 18,284 persons passed through Luton, spending one or more nights in one of our three common lodging houses.

Early in the year I stated that the attention of the Local Government Board had been drawn to the danger caused by the peregrination of tramps which had undoubtedly been the means of spreading the disease from town to town in two of the large Northern counties. The President is said to be fully alive to the risk, but is not in a position to control or license the movements of this class; he has, however, issued a circular letter to Boards of Guardians drawing attention to the danger of infection being conveyed by tramps, and has urged them to secure, as far as practicable, the vaccination or revaccination of all persons relieved in the vagrant wards, and to institute a daily medical inspection of all the inmates. It is to be hoped that ere long it will be possible to vaccinate or revaccinate these disease-spreaders, whether willing or unwilling. It seems monstrous, at this time of day, that the community should be exposed to constant danger and unlimited expense through people who do no work and pay no rates, but who have the power of doing incalculable mischief. Lives are lost, features are disfigured, individuals ruined, industries threatened, and sometimes nearly extinguished—and for what reason? Simply that a number of useless vagrants may retain their so-called liberty—a liberty good neither for them nor for anyone else. In the meantime

75/3/04.—L. N.

each Union can only defend itself by making its regulations so unpleasant that a wide berth is certain to be given it. It has been stated that in ten cities, towns and districts 763 cases of Small Pox have occurred with 32 deaths, and that the disease was originally introduced into every locality by tramps.

Certain official queries have been quite recently addressed to Medical Officers of Health on the subject of "Small Pox and Vagrancy," one of which was, "Is it in your opinion desirable, for the prevention of the spread of Small Pox and other infectious diseases, that habitual vagrants should be detained on Labour Colonies for periods of one or more years, and taught some useful trade or occupation by which they can earn a living?" This is a subject on which I have always felt strongly, and on which I expressed myself to that effect in my last Annual Report; I therefore answered in the affirmative, and sent the Report in question to show that I had referred to the subject previously.

For many years we have talked learnedly about the "aërial convection of Small Pox," and on the strength of this theory, Small Pox hospitals have not been allowed in proximity to dwelling houses, or hospitals for other infectious diseases. It has now been suggested that the so-called "aërial infection" is rather due to the agency of flies. No one who knows what the pocks occurring in the disease are like, and has seen flies crawling over or settling upon them, can doubt the real danger of poison being thus carried from the sick to the healthy. If this be a frequent explanation of the origin of cases which baffle enquiry, it will still be quite as advisable to treat Small Pox at a distance from human habitations. Personally, I have never been satisfied with the aërial theory, believing rather that human intercourse, which is so difficult to regulate, would account for most of the otherwise obscure cases. However this may be, the aërial theory induced good practise, and has served its day admirably.

SCARLET FEVER has again been prevalent in a mild form, no death occurring out of sixty-eight cases, notified as follows: First quarter, 21 cases; second quarter, 19 cases; third quarter, 18 cases; fourth quarter, 10 cases.

Thirty-eight cases were admitted into Spittlesea, being a large proportion of the total number of cases. The average time spent by each patient in the Hospital was seven weeks and four days. Four cases which desquamated twice were retained in the Hospital 67, 65, 75, and 83 days respectively, and one child, who for some time was not expected to recover —having such severe mischief of ear, nose, and throat—was not discharged perfectly well until after 102 days' residence.

Scarlet Fever is becoming such a mild disease that more and more dfficulty is experienced in its diagnosis; one writer says that he is convinced that many mild cases of Scarlet Fever are not followed by any so-called "characteristic desquamation," and it is therefore quite erroneous to negative a doubtful case on the ground that this process has not followed the early symptoms; he also thinks that so-called "characteristic desquamation" may arise from other causes, so that desquamation alone should never be the basis for notifying a case of Scarlet Fever, unless there be strong confirmatory evidence, and even then it would be well to notify it as a "doubtful case." From the above points he draws the conclusion that Scarlet Fever should only be notified where the symptoms are definite, and that all suspicious cases should be notified as cases of doubtful Scarlet Fever, which could then be isolated at home: he agrees with Dr. Newsholme that the time is ripe for asking the Legislature for notification of suspected, as well as fully recognised cases of Scarlet Fever and Diphtheria.

Owing to the opinion of many well-known Medical Officers of Health that Scarlet Fever does not necessarily continue infectious until the very end of desquamation, I brought the subject before my Committee, who wished me to do what I considered best in the matter. I thereupon decided to retain all cases until the desquamation had ceased, for any mistake that might otherwise be made would soon become generally known and commented upon, with possibly much damage to the real usefulness of the Hospital.

At a recent meeting of Medical Officers of Health, a paper was read upon the subject, "Is the Hospital Isolation of Scarlet Fever worth while?" and the writer summed up strongly in the negative; among other things he stated that it was the return cases which, to his mind, afforded the most damning evidence of the failure of the Hospital Isolation of Scarlet Fever. He finished his paper by proposing the following resolution: "That, in the interests of "public health, and in view of the large sums expended annually upon the Hospital Isolation "of Scarlet Fever, it is, in the opinion of the branch, advisable that a full and searching "enquiry into the whole system be held." In the discussion that followed, though nearly every speaker appeared to be in favour of isolation, the resolution was put to the meeting and carried.

MEASLES has been prevalent throughout the year in a mild form, and was responsible for 17 deaths, ten of which were notified in the first quarter of the year, and seven in the second.

DIPHTHERIA.—Eighteen cases were notified, with two deaths; one of these was referred to Membranous Croup. Eight cases occurred in the first quarter, eight in the second, one in the third, and one in the fourth. In the first quarter two cases were removed to Spittlesea, the others were all treated at home. Every case was carefully enquired into, and the usual precautions were taken. The evidence in favour of the use of Antitoxin grows stronger as time goes on, and it does not now seem too strong a statement to make, that, if Antitoxin were only injected in all cases in the earliest stage of the disease, the mortality from Diphtheria would almost be a thing of the past. Proof of this statement appears to be afforded by the fact that, for four years no death has occurred in a certain hospital among cases that came under treatment during the first day of the disease.

In Luton, Antitoxin is now to be obtained from a local chemist in the daytime, and can always be procured from me after closing hours.

The domestic cat has been for some time suspected to be a not improbable medium of infection in Diphtheria, and it is now suggested that cats may convey the disease, not only by being the subjects of it, but by means of fleas derived from poultry yards or cowhouses; horses, cows, fowls and pigeons are said to be susceptible to the disease. When we know that the mosquito is connected with malaria as cause and effect, that rats can convey Bubonic Plague themselves and also by reason of the fleas they carry, it is far from improbable that Diphtheria is conveyed in some such way.

Diphtheria, one writer says, is seen to be independent of overcrowding, poverty and dirt, of density of population, and insanitary conditions, and stands alone by itself as unaffected by conditions which regulate other Zymotic diseases. If now we look at the possibility of the disease being conveyed by fleas from infected animals, the age incidence of Diphtheria is explainable. He further says the etiology of the disease points to some condition of home life affecting early childhood, decreasing after six years of age. Children at an early age crawl on the floor, and then, until school age, nursing a cat or a kitten is a very favourite and frequent occupation.

TYPHOID FEVER.—During the year five cases were notified, of which one died, and one turned out to be of some other nature. So long as immediate notification is required, so long will occasional temporary mistakes in diagnosis occur. Many cases of typhoid, in absence of bacteriological examination, are probably almost undiagnosable. There was no certain history of the disease obtainable in any of the cases; one confessed to eating eels two or three weeks previously and one appeared to be due to the odour of decomposing fish.

The general public must still be strongly warned not to partake of oysters in ignorance of their origin. In spite of all the outcry againt the pollution of oyster beds, no legislative steps have been taken to protect the public. Sanitary Authorities are, therefore, obliged to content themselves with giving the advice not to eat oysters. There is no power to prevent the sale of them even if known to have come from a polluted source. Government Inspectors have repeatedly denounced certain oyster beds, but have contented themselves with denouncements, no steps whatever being taken to prevent the consumption of the oysters. It is absolutely necessary to resort to fresh legislation, and this should include not only our own shell fish but that which comes to us from foreign sources: for it would be of only very partlal use to set our own house in order if we still allowed infected foreign shell fish to be placed upon the market. I frequently marvel that, with such an acknowledged evil, one so far reaching and at times so "mysterious," and laying up for so long a time, or killing outright, those mostly in the prime of life, that none of our legislators should move to put an end to such an admitted and sinful evil; sinful, because human lives are, in reality, juggled with, because it is absolutely in the power of our latter day civilisation to prevent one single death from typhoid fever from this cause. I will just instance one case that occurred a few years ago: Our Relieving Officer, in pursuit of his duty, was called to Liverpool, and during the day innocently eat a few oysters; later on he was notified typhoid and sent to our fever hospital, and fortunately made a good recovery. Here we see that a man, in the prime of life, and doing very useful work for his town, and a stay to his family, nearly lost his life through eating oysters which ought never to have been exposed for sale. The oyster grower who sells his oysters, knowing that they have been polluted by sewage and not unaware of the danger to the consumer, is morally guilty of manslaughter.

Cockles and mussells are equally obnoxious from the same cause, and, in the case of mussells, it appears that some peculiar poison is generated that just recently killed a man in 15 minutes. The comparative absence of typhoid fever in Luton as compared with more northern towns is no doubt largely due to our organically pure water supply and almost complete system of water closets, whereas in so many instances their water supply is questionable and they abound in privies and suchlike abominations. It has been stated that the number of typhoid cases in a town is a fair index of its water supply. This statement does not indicate water to be the only vehicle by which the disease is conveyed, but that the number of cases from other causes are comparatively small. Over the introduction into a town of cases in the person of visitors or through importation of infected shell fish, water cresses or aerated waters, the authorities have little or no control, it is merely a matter of good fortune to escape. The manufacture of ice-creams is under local control and in their production our pure water supply is of great import.

It will readily be understood that if it is often difficult now-a-days to assign its cause to every case of typhold fever it must have been infinitely more so when I first became your Medical Officer in 1878. Then we had to imagine that the disease was occasionally generated *de novo* when the drains and the water supply were like Cæsar's wife. Since that time, shell fish, ice-cream s, water-cress, aerated waters, air-borne or probably fly-borne typhoid have got to be considered before generation *de novo* is even thought of; then, if all the above causes fail us, we have to remember that soil, under certain circumstances, becomes specifically contaminated, and may retain infection for as long a time as one year and cause the disease to become epidemic.

EPIDEMIC DIARRHŒA.—Owing to the exceptionally mild and wet summer only ten deaths were referred to Epidemic Diarrhœa, which was practically non-existent. Climatic conditions affected the result in the following ways:—

(i.) Owing to the continued mild temperature and incessant rains, the heat of the earth did not rise to the degree said to be necessary for or favourable to the multiplication of the germs responsible for Epidemic Diarrhœa.

(ii.) The frequent rains have acted as natural scavengers, precipitating the dust and particles by means of which germs are carried about and conveyed to milk and other readily decomposable articles of food; by the same means, too, the drains have been kept unusually well flushed.

(iii.) The continued prevalence of cool weather, too, was antagonistic to the multiplication of flies, which breed with great rapidity in hot weather. No doubt flies are largely answerable for the entrance of germs into many articles of food with resulting rapid decomposition.

For years Dr. Ballard's theory of diarrhœa setting in epidemically when the 4-feet earth thermometer registered 56°, has held the field; now doubt is being thrown upon it and Dr. Newsholme's experience in 1902 went quite contrary to it. He concluded that for that year, at least, the rainfall was more important than the temperature. Another writer points out that the amount of rain is less important than a number of showery days. The obvious lesson to be derived from the above is that if you wish in a hot dry season to save a high infant mortality, you should water the roads and flush the sewers to the full extent. This is nothing new to us, however; we have previously acted upon this belief, but the undoubted necessity for it comes with more decided emphasis, and justifies to the full rather lavish expenditure under that head. Unfortunately all the watering in the world will not reduce the plague of flies in extremely hot weather.

To show the influence of a cool summer, the infant mortality for for the country generally the third quarter in 1902 was 125 per 1000, whereas the average in the 10 preceding years had been 197. In the same quarter of four large towns with averages of 5·1, 5·5, 1·7 and 1·7 for the previous ten years, the rates for the same quarter of 1902 were respectively 0·9, 0·8, 0·4 and 0·2.

PHTHISIS.—Thirty-eight Deaths were referred to Phthisis; there were seven in each of the first three quarters, and seventeen in the fourth quarter. This universal scourge still causes 60,000 deaths a year in England and Wales, and is accountable for no fewer than 1,000,000 deaths in Europe. Well may we ask if there be any prospect of extinguishing such a terrible disease. Fortunately, here sanitary science does not content itself with empty words; it has already effected great things, and it can now, it is thought, look confidently forward to the day when phthisis and its kindred diseases will be nightmares of the past. Phthisis has been declining in England since 1838, the deaths referred to it then being 38 per 10,000; at the present time it is only 13 per 10,000; this decline may almost safely be attributed in a large measure to the improved sanitary condition of the masses, as well as to drying of the subsoil through effective drainage. Koch believes that the influence of chest and special hospitals has been contributory—these have been useful for educative as well as curative purposes. Tuberculosis in Prussia commenced decreasing much later than in England, but now is decreasing in even greater ratio. Three causes are advanced for this decrease. First, the discovery of the tubercle bacillus and the diffusion of the knowledge of the infectious nature of phthisis; this has led to precautions even among the lowest classes in Germany. Second, the wonderful boon conferred upon the working classes by the Workman's State Insurance Laws, the first of which, the Sick Insurance Law, came into operation in 1883. Third, the establishment of Sanatoria—though this is too recent to have effected much at present. A learned writer states that tuberculosis will disappear from England and Germany in about a generation if its present rate of decrease continue; he does not think, however, that the rate ought to satisfy either country. Professor Koch expressed his views to the writer referred to on this subject, of which the three heads were to a certain extent a short epitome, but in addition he believed that from a preventive point of view neither England nor Germany have as yet provided to a sufficient extent the most essential of all institutions—*the institution for advanced cases*. Numerous experiments show conclusively that every cough, sneeze, effort of speech, or similar breath movements of a patient in the advanced stage of consumption, sets a terrible spray in motion laden with bacteria—*this is the most deadly way of conveying the disease;* now, early stage cases of phthisis are nothing like so infectious, but the very late ones may be deadly. In the late stage, for the sake of wife and children, the poor man ought to be removed to some institution where he could receive visits from his friends, and where, the surrounding circumstances being so different, there would be little chance of infecting others. All other cases of infectious diseases are isolated, but cases of tuberculosis in their last stages are still everywhere allowed to spread infection; often when hopeless, kind friends step in and provide luxuries, which postpone the fatal event, so that still further mischief is caused to the survivors. The money which provided the luxuries would help to brighten existence in an institution, or if spent at an earlier stage might have had some far-reaching good effect. Everyone can see what a delicate subject it is, viz., that of taking the dying consumptive from his home; considering the misery caused by the existing state of things, the matter ought to receive full consideration without delay. The institution must be all but within the district, and the treatment so generous that, though a voluntary institution, it shall almost impel the sufferers to enter, for their own sakes, as well as to save their beloved ones. A few years ago, when we discovered the danger involved in the drying of tubercular spectum, we thought that by disinfecting and keeping it moist before destroying it we had solved the question of human infection. Now we know that the act of coughing in advanced cases among other things is much more to be dreaded and guarded against. Would to heaven that some of the provisions of the State Workman's Insurance Laws obtained here! In Germany, the wife and children of a sick and poor man, Dr. Hillier says, are objects of State solicitude, and when the working man becomes the subject of tuberculosis, cancer, or any other disease, he claims as a right medical care and treatment for himself and some allowance for his family. The State does not leave him to beg for those privileges, but aids him to purchase. The gist

of the whole matter is that its modes of infection, the means of alleviation or cure, or of rendering harmless to others, being so thoroughly understood, the time has come for the State to step in and take radical measures for the rooting out neck and crop of this scourge of our country. The money laid out would, in a number of years, be saved over and over again in the reduction of Poor Law and hospital expenses, besides being instrumental in building up a hardier race, and doing away with suffering as cruel as unnecessary—in my humble opinion, all suffering is unnecessary which the proper and adequate expenditure of money would have prevented. In justice to ourselves, this money would have been thrown away more or less fewer years than one could count on one's fingers, but now, in the light of the most recent research, would result in nothing but untold good. It has been suggested to send early stage cases which have been cured for the time being to work on farm colonies or nursery gardens, so that the good result of treatment should not be thrown away, as is so very often the case when a convalescent from phthisis returns to sedentary work or to the close atmosphere of large towns. It is said that one-seventh of the total pauperism of the country results from phthisis. Dr. Raw states that if the municipality were to seriously undertake the prevention and cure of phthisis, it would simply mean that the cost would be transferred from the poor-rate to the municipal rate. It is for the class that earn their living by labour that some special legislation is required; as Sir John Burdon Sanderson put it, "They may not be destitute, and are not objects of charity, but the conditions under which they live are so unfavourable as to render them more liable than the well-to-do classes to the invasion of the tubercular infection; when such a person becomes consumptive, he loses the one possession which constitutes his working capital,—he loses his earning power. As the disease progresses, the burden of poverty becomes harder and harder to bear. He suffers himself, and those who are dependent on him for their subsistence, suffer with him. Their condition is helpless, and unless there are some more effectual means of aiding than there are at present available, hopeless." I would point out that at the very time the poor man is coughing the germs around him *ad lib*, his wife and children, often in a half-starving condition, are not only exposed wholesale to the germs of the disease, but from want of food, and from broken rest, &c., are in a condition in which their lungs are often quite unable to resist infection. The City of Liverpool is, I believe, the first to recognise its awful responsibility in the matter, and one sanatorium is now in operation.

The work of our municipalities is largely what the members themselves make it; few, I venture to think, are imbued with a greater sense of responsibility to their constituents than ours, and I can conceive no more noble work for them than to fight the battle with phthisis in our own borough, and to allow no consumptive who derived this terrible disease through no fault of his own, but in the exercise of his laudable daily work, to become a pauper.

Finally, the question whether tuberculosis can be transmitted from bovines to man must of course always remain unproven *experimentally*, however certain we may be otherwise, but the converse whether tuberculosis can be conveyed from man to bovines has been the subject of a number of experiments by Hamilton and Young. After infinite trouble they drew ten conclusions proving the matter to the hilt, winding up in their tenth conclusion by the statement "that our results are a direct contradiction of those alleged to have been obtained by Koch and Schütz.

CANCER.—Thirty-nine deaths were registered, being 12 more than last year. Of these deaths 8 occurred in the first quarter, 6 in the second, 12 in the third, and 13 in the fourth.

It is proposed to carefully enquire into every death from cancer during the year and in certain cases to disinfect the rooms occupied during life. The Cancer Research Fund has put forth tremendous efforts to solve the dark problems of the cause and cure of the most dreaded, and perhaps the most painful disease afflicting humanity—so far, I am afraid, without success. Still we have great confidence that, with so many enthusiastic scientific observers at work on the subject, here and all the world over, the awful mystery surrounding the disease will some day be elucidated. In the meanwhile it is to be hoped that the public will not be led away by popular statements of the wonderful "cures" effected by the rays of Röntgen and by means of radium to neglect the radical cure undoubtedly resulting in some cases by early surgical operation, in many cases even when recurrence occurs there has been a considerable interval of comfort and usefulness.

Cancer, besides occurring in dogs, cats and other animals, is now said to occur in fishes. This pronouncement, if true, might easily throw some light on the causation of the disease, and at the same time remove suspicion from articles of diet hitherto popularly considered questionable.

Scientific research ought to be encouraged to the utmost. With the new light thrown upon the causation of malaria and the plague we have every reason to thank heaven and take courage.

At the same time careful reports like those of Mr. Gifford Nash on "Cancer in North Bedfordshire," if backed up by similar enquiries all over the country, might throw much light on the subject. It is by attacking it from every side and by the well-considered opinions of many-sided observers that some day, quite unexpectedly, our dark places will become lighted up.

INFANT MORTALITY.—One hundred and twenty-five infants died under one year, equal to an annual rate of 127·6 deaths per 1000 births.

The rates for the four quarters were respectively 150·2, 91·2, 127·4, 127·4.

The following interesting table shows the great fall in the birth-rate and will emphasise the remarks which are to follow ;—

Town.	Birth-Rate.		Extent of Birth-Fall.	Infant Death-Rate.	
	1876.	1901.	Per Cent.	1876.	1901.
Oldham	43·8	24·6	44·0	174 ..	173
Salford	49·3	29·2	43·0	189 ..	204
Bradford..	39·2	23·1	40·0	174 ..	168
Leicester..	42·2	29·0	30·0	200 ..	175
Manchester	39·8	29·1	27·0	180 ..	199
Birmingham	42·8	32·1	25·0	160 ..	187
England and Wales ..	36·3	28·5	20·5	146 ..	151

Last year I stated that "the unfortunate tendency of the Birth-rate to decrease renders the subject of Infant Mortality of increasingly great national importance." As the birth-rate is still on the downward grade it behoves us to do all that in us lies so to moderate the mortality generally, and infant mortality in particular, as in some small way to make up for this serious diminution.

On referring to the causes of our infant mortality we find six answerable for 114 out of the 125 deaths, viz., Measles 17, Diarrhœa 14, Bronchitis 26, Wasting 25, Convulsions 16, Premature Birth 16. We will first ask whether this mortality is capable of reduction, and then point out some of the special means recommended to this end. The mortality from measles is always very slight if the weather be mild, but if the wind happen to be in the North-East there are usually a number of deaths from the severe bronchial catarrh accompanying the disease. Mothers want educating to know that the great danger of measles arises almost entirely from the lung mischief, and that they ought, from the very first, to take proper steps medically, and otherwise, to modify the danger. Diarrhœa mortality would be considerably reduced by more knowledge being diffused on the subject of infant feeding and by jealously guarding all articles of food from outside infection.

Bronchitis would be reduced by improved hygiene; if children were brought up with sufficient night ventilation they would doubtless be much more hardened against the complaint; the hardening of the day is undone by the ofttimes fœtid atmosphere of night.

Wasting and convulsions are responsible for 41 deaths between them; this number would be considerably reduced if parental ignorance on the subject of rearing of infants could be overcome.

The deaths from premature birth are partly owing to the exigencies of our particular trade and partly to parental ignorance ; if a parent does not know how to proceed in the case of an infant born at full time, how is it possible for her to rear a premature infant who naturally requires the most careful feeding and attention?

Having taken the diseases *seriatim* which have been mainly instrumental in causing our infant mortality, I would just cursorily refer to steps which have been suggested for reducing infant mortality generally.

(*i.*) *Lady Visitors.*—These have been appointed and have done good service in some few instances. I could imagine a grand scope for one in Luton. She would visit the occupants of the two or three hundred poorest houses in the town, would advise as to the management, feeding and nursing of the children, would inculcate a love for ventilation and cleanliness, and would by degrees cause the poor to look upon the existence of vermin in their children as a positive disgrace. By following up the births registered, an eye could be kept upon all the infants under one year. The salary of such an officer would, if the work were efficiently done, be repaid over and over again in the good which would be effected and which would extend to generations yet unborn.

(*ii.*) *Crèches* have been started in many towns and, I believe, successfully. It is quite a question whether one would take root in Luton.

(*iii.*) *District Nurses.*—We have as many as five, and they have effected incalculable good among the poor of Luton; two or three more are badly wanted. The work of these nurses might dove-tail in splendidly with that of a lady visitor ; the former go to the poor when a member is ill, whereas the mission of the latter would be to advise them how to keep well, and, when illness occurred, to hand them over to the nurse of the particular district or organisation.

(*iv*). In all the elementary schools the girls of a certain age should receive instruction so as to make them suitable right hands for their mothers on leaving school ; the subjects would include hygiene, ordinary and invalid cookery, and the first elements of nursing.

(*v.*) Frequent analyses of milk, both to detect dilution and the presence of preservatives. The infants of the poor are quite sufficiently handicapped without having their milk previously diluted and perhaps only kept from decomposing by the addition of preservatives, which in certain quantities are prejudicial to sick if not to healthy children.

(*vi.*) There ought to be a proper larder in every house and covered receptacles for perishable articles of food.

(*vii.*) Thorough scavenging and frequent watering of streets in hot summer weather, thus removing all raison d'être for flies which ought then to be destroyed as pests.

(*viii*). Strict attention to Cowhouses, Dairies and Milkshops, with all that that involves.

(*ix.*) Milk sterilized and sold by the Municipality to the poor.

(*x.*) The better housing of the people and, to obviate overcrowding, farm labourers who have crowded into the towns should be enticed back to the land. In my opinion, Government

Inspectors ought to be appointed, to go from town to town condemning all houses which no human being ought to be allowed to inhabit; in this way a fair uniformity in the condemnation of houses would result.

(*xi.*) For the prevention of phthisis, the seeds of which are so often sown in early life, everybody should be educated to take an interest in ventilation, and especially to avoid passing so many hours at night in rooms with windows fastened and possibly every crevice stopped up.

SANITARY INSPECTIONS.—Mr. Wright supplies a list of nuisances abated, fewer by 939 than last year; this reduction is owing to the very large number effected in previous years; all new property is up-to-date in sanitary matters and this great reduction forcibly shows that the older property must be rapidly getting more up to that standard. As people do not carry tables in their heads for any length of time, I shall again introduce Mr. Wright's last year's table of nuisances abated within ten years, before I summarise those abated this year.

During the last 11 years the undermentioned privies, sinks, and nuisances have been enquired into:—

	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	Total.
Privies altered	325	85	18	21	6	40	10	7	8	3	10	533
Sinks condemned	490	40	106	42	29	20	24	37	41	19	2	850
Water from wells condemned	8	7	6	5	4	8	1	0	0	3	0	42
Water from wells analysed..	10	8	15	10	9	12	3	0	2	5	0	74
Nuisances	2102	964	1104	1429	1384	1471	1304	2097	1896	2172	1233	17,156

NUISANCES.—The following list will show the nature of the nuisances which were inquired into and dealt with during the year:—

No receptacles for ashes	345	Defective ventilating pipes	6
Insanitary dwellings	164	Pigs kept contrary to the Bye-laws	4
Defective bell traps	148	Drains unventilated	2
Drains and w.c.'s blocked	114	Houses overcrowded	2
No constant water supply to the w.c.'s	99	No separate sanitary accommodation for females	2
Water apparatus to w.c.'s out of order	72	Sinks not disconnected	2
Defective w.c.'s	48	No urinals	2
Defective ashpits	37	Slaughter houses requiring whitewashing	1
Defective pavings	31	Other Nuisances	67
Insufficient ventilation to houses	24		
Insanitary workrooms	22	Total	1,233
Offensive smells and accumulations	21		
Defective drains	11		
No receptacles for manure	9		

Insanitary Dwellings.—One hundred and sixty-four houses were found to be in an insanitary condition. All of these were thoroughly cleansed and whitewashed by their respective owners.

House Drains.—Two sink waste pipe drains were found directly connected with the drain. These were made to discharge on to 6 inch earthenware syphon gully traps.

Privies.—Ten privies were converted into water closets and connected with the sewer during the year. There are but few privies now remaining; about as many as can be counted on the fingers.

Closet Cleansing.—Thirty-five loads of night-soil were removed from privies and 50 loads from dumbwells. The charge made for emptying the above was £9 1s. 6d. and the cost £6 11s. 2d.

Ashes, Offal and Trade Refuse Collection.—Twelve thousand one hundred and eighty-five loads of ashes, offal and trade refuse were collected by the Corporation teams. The above was effected at a total cost of £1,206 3s. 1d. This does not include any cost for horses with the exception of the hired ones.

The ashes were disposed of as follows:—

Sewage Works and Farm	8,857 loads.
Elsewhere	3,328 ,,
	12,185 ,,

Last year's total was 12,333 loads.

The income in connection with the above department was as follows:—

Sifted Ashes	£ 6 10 0
Trade Refuse	85 5 0
Rough Ashes	14 0
Collecting Offal from Slaughter Houses ..	14 5 3
	£106 14 3

Time spent in sifting, covering up, &c. (wholly manual labour) 3120 hrs., cost £49 8s. 0d. The collection of ashes for the last eleven years has been—

1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.
8,756	9,116	9,607	11,049	11,503	11,813	11,661	10,966	11,044	12,333	12,185

Ventilating Shafts.—No additional shafts were erected during the year. The total number in the borough is therefore still 47.

Inspection of Streets.—Mr. Wright states that the sanitary defects found as the result of the systematic visits to the streets and alleys, made with the Medical Officer of Health, have all been remedied.

Water Analysis.—No samples have been submitted to me for analysis during the year: this is owing to the almost infinitesimal number of wells now existing in the borough. I would again suggest the advisability of an annual examination of the Company's water, good as we believe it to be.

Dairies, Cowsheds and Milkshops.—Under the "Dairies, Cowsheds, and Milkshops Order of 1885," 17 persons were registered as purveyors of milk. As a result of the careful inspection last year, much useful work was done; it is proposed shortly to make another thorough inspection especially of that "makeshift sort of accommodation which can be to a certain extent improved, but which can never be anything but just permissible."

Food and Drugs.—In connection with the Sale of Food and Drugs Acts, 91 samples were submitted to the Public Analyst. The samples were as follows:—57 samples of new milk; 8 samples of butter; 4 samples each of lard, beer, and sweets; 2 samples each of malt vinegar, pepper, and gin; 1 sample each of whisky, brandy, and soda-water, skim milk, margarine, golden syrup, coffee and mustard. Of these samples, 10 were adulterated and seven of the above were fined, the fines varying from £8 to 10s., including costs, in both cases.

The importance of having numerous analyses of milk is beyond question. It is stated that 30 per cent. of children have primary tuberculosis of intestines, but only 2 per cent. of adults. It is certain that in children and young animals, for sometime after birth, the lining membrane of the intestine has not been completely developed. Behring states, therefore, (1st) that young children and young animals cannot resist this infection with the tubercle bacilli, (2nd) that the infection with tuberculosis happens almost only in the earliest years of life, (3) that the tubercle baccili can be latent in the body for an unlimited time, so that the disease can appear later, if, on account of the condition of life, the predisposition has been developed, and (4) that infected milk must be the chief material of infection. The above opinion is antagonistic to that of Koch, but the latter's opinion—only in this respect, has little weight in this country.

The Slaughter Houses were regularly visited during the year, and on the whole were found to be in a satisfactory condition. Thirty-one licenses have been renewed and three transferred.

Markets.—The markets were regularly visited during the year. On May 9, a large quantity of Bananas, which were exposed for sale in the market, were seized, and later, on the same day, a small quantity of Bananas, which were exposed for sale in the streets, were also seized. Both consignments were afterwards condemned by a magistrate. On May 23rd, evidence was given in Court on the above cases, when the defendants were fined respectively £2 10s. 0d. including costs, or one month's imprisonment. Also on July 16th, twenty pounds of Strawberries were seized, which were exposed for sale. These were duly condemned by a magistrate. On September 5th, evidence was given in Court in the case, when defendant was fined £1 including costs. Mr. Wright further says that he examined during the year forty boats and seven pecks of Strawberries, one large case and eight half-cases of Pears, one trunk and three-quarters of a barrel of Codfish (at the request of the owners) on arrival at Luton, before being exposed for sale: these he found to be unfit for food, and forthwith caused them to be condemned and destroyed.

Factory and Workshops Act.—The workshops visited during the year, with a few exceptions, were found to be in satisfactory condition. No case of overcrowding was found; twenty-two required whitewashing, and two proprietors were ordered to provide separate accommodation for females. The necessary work has since been carried out. One hundred and six occupiers of factories and workshops have sent lists showing the names and addresses of persons employed by them as outworkers, in accordance with the Factories and Workshops Act, 1901. The number of outworkers registered is 901. These are only employed during part of the year, owing to the straw hat industry being a seasonal trade. Numerous visits have been paid to these workshops, in order to remind the occupiers of their duty in the matter of furnishing the lists.

Housing of the Poor.—Only two more houses were pulled down during the year. Last year I gave a list of 162 which had been demolished during the last 25 years; to that list a few more might have been added. We have no so-called slums, though we should soon have approached to that state of things had a certain number of the 162 demolished houses been now standing. I should like to see permanent Inspectors go from town to town and condemn houses which do not come up to a settled standard, that standard to be one rather above that obtaining here, and certainly in many other towns, and not comparing quite so unfavourably with our splendid Corporation stables.

Bakehouses.—In carrying out Section 101 of the Factory and Workshops Act, 1901, the Borough Surveyor, the Inspector of Nuisances and myself visited all the underground Bakehouses in the borough to the number of 38. We passed all but four, subject to the owners carrying out our multifarious suggestions, which in many cases involved a considerable outlay of money. The majority of these having carried out our recommendations, they have been passed. Of the four condemned ones, two will in all probabillty be ultimately passed, as very great structural and other alterations are being carried out to bring them up to our requirements. The remainder of the Bakehouses have all been inspected, and found in fairly good condition.

Sewage Works.—During the year there were 687,614,500 gallons of sewage pumped, an increase over 1902 of 3,503,400 gallons, or an average daily increase of 9,590 gallons.

Disinfection and Disinfectants.—All houses in which infectious diseases were notified were visited at the earliest possible opportunity; children from infected families were ordered not to attend school, and notices were served requiring the abatement of any nuisances arising from defective drainage or other matters that were discovered. Disinfectants were also freely

supplied, and when the patient became convalescent, or death unfortunately occurred, all the rooms were disinfected and cleaned. The cost of disinfectants for the year was £81 14s. 9d., which sum also includes the bulk of the disinfectants sent to Spittlesea.

SPITTLESEA HOSPITAL.—Thirty-five cases of Scarlet Fever, two cases of Scarlet Fever with Diphtheria (mixed infection), one case of suspected Typhoid Fever were removed to Spittlesea during the year, making a total of 38 cases as against 30 last year.

SCHOOL CLOSURE.—On January 30th the Medical Officer issued a certificate for closing the Infants' Department of St. Paul's School for three weeks and a similar one for St. Mary's Hall.

INFECTIOUS DISEASES NOTIFICATION AND PREVENTION ACTS.—The following list will show the number of cases reported under the provisions of the Infectious Diseases Notification Act; it is pleasing to report that there is a decrease of 22 cases as compared with last year's list, this being the lowest number of cases notified since the Act was adopted in the Borough.

The following table gives the number of cases reported during each year since the Act has been in force :—

Name of Disease.	Number of Cases each Year.							
	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.
Scarlet Fever	236	185	75	43	62	268	89	68
Erysipelas	35	53	36	52	40	59	30	35
Typhoid	16	37	16	28	22	19	7	5
Diphtheria	13	12	39	50	11	12	17	18
Puerperal Fever	3	6	2	8	8	8	3	7
Membranous Croup ..	2	—	3	6	7	2	—	—
Continued Fever	1	6	2	1	2	2	4	—
Variola	1	—	—	—	—	2	5	—
Choleraic Diarrhœa ..	—	1	—	—	—	—	—	—
Anthrax	—	—	1	—	—	—	—	—
	307	300	174	188	152	372	155	133

The following list shows the number of houses and the different wards in which cases of infectious diseases occurred during the past year :—

Name of Disease.	No. of Cases.	North Ward.	East Ward.	West Ward.	Number of Houses.
Scarlet Fever.. ..	68	25	21	12	54
Erysipelas	35	10	14	11	34
Typhoid	5	2	2	1	5
Diphtheria	18	3	6	9	15
Puerperal Fever ..	7	4	3	—	7
Totals	133	44	56	33	115

Mr. Wright further gave a very elaborate table of the different streets in the Borough in which each case of infectious disease occurred.

LOCAL GOVERNMENT BOARD.—In accordance with the wishes of the Board I have sent weekly and quarterly returns of the infectious diseases in the Borough; these have in every instance been sent promptly, and week by week the Board have sent in returns of the notifications in boroughs and urban districts.

COUNTY COUNCIL.—Monthly returns have been forwarded regularly to the Council of the infectious diseases in the Borough, and monthly statements of the notifications for the County of Bedford have been sent me in return.

INFECTIOUS DISEASES AND NOTIFICATION—

(*i*). *Notification.*—One hundred and thirty-three cases were notified.

(*ii.*) *Isolation.*—One case of suspected Typhoid Fever, 35 cases of Scarlet Fever, and two of mixed infection—Scarlet Fever with Diphtheria—were removed to Spittlesea. The remaining cases were isolated at their own homes under the superintendence of the Inspector.

(*iii*). *Disinfection of Rooms, Bedding, Clothing, &c.*, was carried out in many of the cases by the Authority, and in houses where death had occurred from Phthisis.

(*iv.*) *Investigation* into the sources and causes of all the cases of notifiable disease has been made as usual.

(*v.*) *Controlling the Channels of Infection.*—Children from infected houses have been prohibited from attending school.

(*vi.*) *Hospitals for Infectious Diseases.*—The Small Pox Hospital has been tenantless during the year. Suggestions have been made for utilising these hospitals for phthisical cases; this could only be done if the cases catered for could be moved without fail to their own houses almost at a moment's notice in the event of a case of small-pox occurring, or even a suspicious case of the disease. Otherwise I believe the suggestion to be admirable, provided disinfection is of such a thorough nature that no case of phthsis could run any real risk of contracting small-pox. The other portion of Spittlesea has been occupied all through the year, but we ended up with only one inmate.

ATTENDANCE IN COURT.—On May 23rd I gave evidence in the Banana Cases previously mentioned. On September 23rd my deputy attended in Court to give evidence in the case of Wright *v.* Monkton. Boracic acid had been added by the defendant to his milk

to the amount of nearly 38 grains per gallon ; he was fined £5 10s. including costs. Here I would remark that I hope the above case will be a warning to all those who may be inclined to trust to preservatives rather than to carrying out all their dairy operations with the minutest attention to cleanliness in every detail.

ADVICE GIVEN TO MY AUTHORITY.—On January 30th I advised the closing of two schools on account of Measles.

Later, I urged you to continue the policy of proceeding against those parents whose children were affected with vermin. Two cases were proceeded against and penalties imposed.

In my June Report I drew your particular attention to that portion of my Annual Report which related to the subject of preservatives in milk, and asked that samples of milk might be shortly analysed with a view to the detection of their presence and amount.

The delicate state of the mucous membrane of the intestines of young infants before mentioned, bssides being an argument against exposing it to the presence of the baccilli of tuberculosis in milk, is a strong one against the use of a drug which would easily act as an irritant to it. I also advised in the same Report, in view of the possible advent of hot weather, the very greatest alacrity possible in the removal of refuse, and the continuance of our usual policy of regular and thorough flushing of the drains,

SANITARY REQUIREMENTS.—(*i.*) A Refuse Destructor. (*ii.*) A Steam Disinfector. (*iii.*) A Building in which last stage cases of Phthsis can be treated in the most safe and humane manner.

With regard to our Requirement No. 1.—It is stated that the aboriginal inhabitant, after accumulating household refuse, moved his place of residence when even he could stand the irrepressible odours no longer. In centres of population like our own, it has been impossible to follow such example ; the next best thing—at the time—was to carry the refuse as far from the doors of the inhabitants as possible; what could not be sold to neighbouring farmers and others, was deposited either in the environs of the borough or on the Corporation Farm, perpetual fires being kept burning to consume what was consumable. One intolerable nuisance has been caused by children and others raking over the heaps to pick up scraps of some small value. The nuisance became so intolerable—some persons spending most of their time in this way—that proceedings had even to be taken to stop it. But an even greater nuisance was caused by the effluvium, often of a very forbidding and sickly character, and the distribution by the wind of dust and possible disease germs ; besides an enormous quantity of dirty paper which adhered to the hedges according to the direction of the wind, and defiled the look of the neighbourhood. Our policy has been to attract new industries to the neighbourhood ; at one of these, the work has been carried on in quite an aroma of refuse, whenever the air happened to be rather stagnant, but what little wind there was set that way. Having now given a fairly mild account of the nuisance to this day existing in our midst, it is with great pleasure that I announce the approaching advent of a Horsefall Refuse Destructor. We believe that it is a thoroughly up-to-date Destructor; there will be no accumulation of refuse as it will, after being carried to the Destructor, be promptly disposed of. When we consider that our refuse contains tons of paper, old tins and bottles innumerable, besides animal, vegetable and trade refuse, we see what an advantage we shall gain by a not immoderate outlay which will be spread over a number of years. This outlay was contemplated three or four years ago, but it was at the time difficult to believe that anything like finality had been reached in the Destructor line, and I believe that the delay has been fully justified, and if our Horsefall Destructor does not come up to all our expectations, it will not be for lack of expenditure of time and trouble on the part of the Committee concerned in its purchase. No unpleasant or injurious results occur from the destructive process, so that there is no need to have the Destructor at a distance, which would add considerably to the expense of cartage.

With regard to Requirement No. 2.—The steam of the Refuse Destructor is proposed to be utilised for Steam Disinfecting purposes.

With regard to Requirement No. 3—which is not one generally regarded as such at present—whether our Small Pox Hospital should be used for the purpose, or some other accommodation found, is a matter for earnest consideration.

In conclusion, I had the wish to review the work of the last 25 years, during which I have had the honour of being the Medical Officer ; but owing to the illness with which I have been struggling, I am unwillingly obliged to postpone it. I would remark that the year that has passed has been one of the most trying in the fitfulness of the weather and the greatest rainfall on record, but from a sanitary point of view could hardly be excelled. So-called unseasonable weather is usually very healthy ; the absence of hot summer weather and of a cold winter has been the means of saving thousands of lives in this country. Our general death-rate was 13·8, the zymotic rate 1·1, and the infant-rate only 127·6 per 1000 births ; the average of the ten preceding years up to 1901 was 153·3, and last year 143·7 ; the notifications of infectious diseases were 22 below last year and 239 below those of 1901.

Luton, through the exertions of its sanitary reformers, and the money ungrudgingly spent in the service of sanitary reform, is a much healthier place than 25 years ago, and I am proud to feel that I have been associated with it all that time, and thankful to think of the generous help accorded me by the various Sanitary Committees in all those years, and by my fellow-officers now as at all times.

I am, Gentlemen,

Yours obediently,

HORACE SWORDER.

BOROUGH OF LUTON.

ANNUAL REPORT of the Sanitary Inspector, Mr. CHARLES WRIGHT, for the year ended the Thirty-first day of December, 1903; presented to the Sanitary Committee on the 19th day of February, 1904, and ordered to be printed.

TO THE CHAIRMAN AND MEMBERS OF THE SANITARY COMMITTEE.

SANITARY INSPECTOR'S OFFICE,
TOWN HALL, LUTON.

JANUARY, 1904.

GENTLEMEN,

I have the honour of presenting to you my Eleventh Annual Report upon the Sanitary condition of the Borough for the year ended 31st December, 1903. For the convenience of reference, the same classification is adopted as in previous years.

INFECTIOUS DISEASES NOTIFICATION AND PREVENTION ACTS.

The following list will show the number of cases reported under the provisions of the Infectious Diseases Notification Act. I am pleased to state that there is a decrease of 22 cases as compared with last year's list, this being the lowest number of cases notified since the Infectious Diseases Notification Act was adopted in the Borough.

There was an increase of one case of Diphtheria.

I give, for comparison, the number of cases reported during each year since the Notification Act was adopted in the Borough :—

NAME OF DISEASE.	NUMBER OF CASES EACH YEAR.							
	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.
Scarlet Fever	236	185	75	43	62	268	89	68
Erysipelas	55	53	36	52	40	59	30	35
Typhoid	16	37	16	28	22	19	7	5
Diphtheria	13	12	39	50	11	12	17	18
Puerperal Fever	3	6	2	8	8	8	3	7
Membranous Croup ..	2	—	3	6	7	2	—	—
Continued Fever	1	6	2	1	2	2	4	—
Variola	1	—	—	—	—	2	5	—
Choleraic Diarrhœa ..	—	1	—	—	—	—	—	—
Anthrax	—	—	1	—	—	—	—	—
	307	300	174	188	152	372	155	133

The following list shows the number of Houses and the different Wards in which cases of Infectious Diseases occurred during the past year :—

NAME OF DISEASE.	No. of Cases.	North Ward.	East Ward.	West Ward.	No. of Houses Infected.
Scarlet Fever	68	25	31	12	54
Erysipelas	35	10	14	11	34
Typhoid	5	2	2	1	5
Diphtheria	18	3	6	9	15
Puerperal Fever ..	7	4	3	—	7
Totals	133	44	56	33	115

STREETS IN WHICH INFECTIOUS DISEASES OCCURRED.

The following tabulated list shows the various streets in which Infectious Diseases occurred, and also the streets from which cases were removed to Spittlesea Hospital :

75/3/04. L. N.

Name of Street.	Scarlet Fever.	Typhoid Fever.	Diphtheria.	Erysipelas.	Puerperal Fever.	Membranous Croup.	Continued Fever.	Small Pox.	TOTAL.	Removed to Hospital.		
										Scarlet Fever.	Typhoid Fever.	Diphtheria.
Ashton Road	3	..	1	1	..	..	..	..	5	2	....	..
Alfred Street	..	..	1	..	..	..	..	..	1	..	....	..
Arthur Street	2	..	..	..	..	..	..	..	2	2	....	..
Alma Street	..	..	..	1	..	..	..	..	1	..	....	..
Bolton Road	1	..	..	..	..	..	..	..	1	1	....	..
Bury Park Road	..	..	..	2	1	..	..	..	3	..	....	..
Buxton Road	1	..	1	1	..	..	..	..	3	..	....	..
Baker Street	3	..	..	..	..	..	..	..	3	..	....	..
Boyle Street	4	..	..	..	..	..	..	..	4	3	....	..
Cardiff Road	..	..	..	1	..	..	..	..	1	..	....	..
Chequer Street	2	..	..	..	..	..	..	..	2	..	....	..
Cambridge Street ..	..	..	2	..	..	..	..	..	2	..	....	2
Cardigan Street	1	..	..	..	..	..	..	..	1	1	....	..
Chase Street	..	..	..	2	..	..	..	..	2	..	....	..
Chapel Street	..	..	3	..	..	..	..	..	3	..	....	..
Cumberland Street ..	1	..	..	..	..	..	..	..	1	..	....	..
Cross Street	..	..	1	..	..	..	..	..	1	..	....	..
Church Street	1	..	..	..	2	..	..	..	3	..	....	..
Cowper Street	1	..	..	..	..	..	..	..	1	1	....	..
Dunstable Place	..	..	1	..	..	..	..	..	1	..	....	..
Dudley Street	..	..	..	1	..	..	..	..	1	..	....	..
Duke Street	1	..	1	..	..	..	..	..	2	..	....	..
Dunstable Road	1	..	..	1	..	..	..	..	2	1	....	..
Frederic Street	1	..	..	..	..	..	..	..	1	..	....	..
Harcourt Street	..	..	..	2	..	..	..	..	2	..	....	..
High Town Road ..	4	..	..	1	1	..	..	..	6	1	....	..
Hart Hill Lane	1	..	..	..	..	..	..	..	1	..	....	..
Hitchin Road	2	..	..	2	..	..	..	..	4	1	....	..
Holly Walk	..	1	..	..	..	..	..	..	1	..	....	..
Hillside Road	..	..	..	..	1	..	..	..	1	..	....	..
Hastings Street	..	..	..	2	..	..	..	..	2	..	....	..
Havelock Road	..	..	1	..	..	..	..	..	1	..	....	..
Inkerman Street	..	..	..	1	..	..	..	..	1	..	....	..
Ivy Road	2	..	..	..	..	..	..	..	2	2	....	..
John Street	..	..	..	1	..	..	..	..	1	..	....	..
Jubilee Street	..	..	..	1	..	..	..	..	1	..	....	..
Lea Road	4	..	..	..	..	..	..	..	4	1	....	..
Leagrave Road	1	..	..	..	..	..	..	..	1	..	....	..
Langley Street	..	..	..	2	..	..	..	..	2	..	....	..
Langley Road	..	..	..	2	..	..	..	..	2	..	....	..
Langley Place	..	..	..	1	..	..	..	..	1	..	....	..
London Road	4	..	..	..	..	..	..	..	4	4	....	..
Manor Road	..	..	..	2	..	..	..	..	2	..	....	..
New Town Street ..	1	..	..	2	..	..	..	..	3	..	....	..
North Street	6	1	..	1	..	..	..	..	8	6	....	..
New Bedford Road ..	..	..	1	1	..	..	..	..	2	..	....	..
Oxen Road	..	1	..	..	..	..	..	..	1	..	1	..
Old Bedford Road ..	5	..	..	..	..	..	..	..	5	4	....	..
Pondwicks Road.. ..	3	..	..	..	..	..	..	..	3	2	....	..
Park Street	..	..	..	1	2	..	..	..	3	..	....	..
Queen Street	1	..	..	..	..	..	..	..	1	1	....	..
Regent Street	..	..	1	1	..	..	..	..	2	..	....	..
Salisbury Road	4	..	..	..	..	..	..	..	4	..	....	..
Stanley Street	1	..	..	..	..	..	..	..	1	1	....	..
Stuart Street	..	1	..	2	..	..	..	..	3	..	....	..
St. Ann's Road	..	1	..	..	..	..	..	..	1	..	....	..
Tennyson Road	..	..	1	..	..	..	..	..	1	..	....	..
Union Street	..	..	1	..	..	..	..	..	1	..	....	..
Vicarage Street	2	..	..	..	..	..	..	..	2	..	....	..
Wellington Street ..	2	..	2	..	..	..	..	..	4	1	....	..
Windmill Road	1	..	..	..	..	..	..	..	1	..	....	..
Wenlock Street	1	..	..	..	..	..	..	..	1	..	....	..
TOTALS.. ..	68	5	18	35	7	0	0	0	133	35	1	2

Information as to the number of Deaths from these diseases will be found in the Medical Officer of Health's Report.

On January 30th the Medical Officer of Health issued a certificate for closing the Infants' Department of St. Paul's Schools for three weeks, and a similar one for St. Mary's Hall.

The appended table shows the ages of persons who, during last year, suffered from Infectious Diseases. :—

Notifiable Diseases.	Years.						
	At all Ages.	Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards
Diphtheria ..	18	..	7	7	3	1	..
Erysipelas	35	..	2	4	6	21	2
Scarlet Fever ..	68	..	23	39	4	2	..
Enteric Fever ..	5	..	..	1	2	2	..
Puerperal Fever ..	7	..	..	..	3	4	..
TOTALS ..	133	—	32	51	18	30	2

All houses in which Infectious Diseases occur are visited at the earliest possible opportunity; children from infected families are ordered not to attend school, and notices are served requiring the abatement of any nuisances arising from defective drainage, or other matters that may be discovered. Disinfectants are also freely supplied, and when the patient is convalescent, or death unfortunately takes place, infected rooms are disinfected and cleansed. The cost of disinfectants for the year was £81 14s. 9d., which sum also includes the bulk of the disinfectants sent to Spittlesea.

SPITTLESEA HOSPITAL.

Thirty-five cases of Scarlet Fever, two of Diphtheria and one case of Typhoid Fever were removed to Spittlesea during the year, making a total of 38 cases, as against 30 last year.

INSPECTION OF STREETS.

I have, in conjunction with the Medical Officer of Health, regularly visited the streets and alleys during the year, and have taken the necessary steps to remedy all the defects arising in connection with these visits.

NUISANCES.

The following list will show the nature of the nuisances which were inquired into and dealt with during the year :—

No receptacles for ashes	345	Defective ventilating pipes	6
Insanitary dwellings	164	Pigs kept contrary to the Bye-laws	4
Defective bell traps	148	Drains unventilated	2
Drains and w.c.'s blocked	114	Houses overcrowded	2
No constant water supply to w.c.'s	99	No separate sanitary accommodation for females ..	2
Water apparatus to w.c.'s out of order	72	Sinks not disconnected	2
Defective w.c.'s	48	No urinals	2
Defective ashpits	37	Slaughter houses requiring whitewashing	1
Defective pavings	31	Other Nuisances	67
Insufficient ventilation to houses	24		
Insanitary workrooms	22	Total	1,233
Offensive smells and accumulations	21		
Defective drains	11		
No receptacles for manure	9		

Five hundred and fifty-nine preliminary and 69 legal notices were served in connection with the above nuisances.

INSANITARY DWELLINGS.

One hundred and sixty-four houses were found to be in an insanitary condition. All of these were thoroughly cleansed and whitewashed by the respective owners.

HOUSE DRAINS.

Two sink waste pipes were found directly connected with the drain. These were made to discharge on to 6-inch earthenware syphon gully traps.

PRIVIES.

Ten privies were converted into water-closets and connected with the sewer during the year. There are but few privies now remaining.

CLOSET CLEANSING.

During the year 35 loads of night soil were removed from privies and 50 loads from dumbwells. The charge made for emptying the same was £9 1s. 6d., and the expenditure in wages £6 11s. 2d.

ASHES, OFFAL AND TRADE REFUSE COLLECTION.

12,185 loads of ashes, offal and trade refuse were collected by the Corporation teams.

The cost of manual labour in connection with the collection and disposal of ashes was :—

	£	s.	d.
Horse Drivers (26,225 hours)	437	1	8
Fillers (38,108 hours)	626	0	5
Hired Horses, at 4s. per day	143	1	0
	£1,206	3	1

The disposal of ashes was as follows :—

Sewage Works and Farm	8,857 loads.
Elsewhere	3,328 ,,
	12,185 ,,

Last year's total was 12,333 loads.

The income in connection with this department was as follows :—

	£	s.	d.
Sifted Ashes	6	10	0
Trade Refuse	85	5	0
Rough Ashes		14	0
Collecting Offal from Slaughter Houses ..	14	5	3
	£106	14	3

Time spent in sifting, covering up, &c. (wholly manual labour) 3120 hrs., cost £49 8s. 0d.

The collection of ashes for the last eleven years has been—

1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.
8,756	9,116	9,607	11,049	11,503	11,813	11,661	10,966	11,044	12,333	12,185

VENTILATING SHAFTS.

No additional ventilating shafts were erected during the year. The total number of ventilating columns in the Borough is 47.

DAIRIES, COWSHEDS AND MILK SHOPS.

Under the "Dairies, Cowsheds and Milkshops Order of 1885" 17 persons were registered as purveyors of milk.

FOOD AND DRUGS ACTS.

In connection with the "Sale of Food and Drugs Acts," 91 samples were submitted by me to the Public Analyst.

The samples were as follows :—57 samples of new milk ; 8 samples of butter; 4 samples each of lard, beer, and sweets; 2 samples each of malt vinegar, pepper, and gin; 1 sample each of whisky, brandy, soda-water, skim milk, margarine, golden syrup, coffee and mustard.

Of these samples, 10 were adulterated in the manner shown in the statutory report hereunto annexed :—

Article submitted for Analysis.	*Who submitted the Sample.*	*Result of Analysis.*	*The sum paid in respect of Analysis.* s.	d.	*Observations.*
New Milk	Sanitary Inspector	Genuine	10	6	
New Milk	,, ,,	,, ...	10	6	
New Milk	,, ,,	,, ...	10	6	
New Milk	,, ,,	,, ...	10	6	
New Milk	,, ,,	,, very poor in fat	10	6	
New Milk	,, ,,	Adulterated (8 per cent. of added water).	10	6	Vendor fined £1, including costs.
New Milk	,, ,,	Genuine	10	6	
New Milk	,, ,,	,, ...	10	6	
New Milk	,, ,,	Adulterated (3 per cent. of added water).	10	6	Case dismissed.
New Milk	,, ,,	Genuine	10	6	
New Milk	,, ,,	Adulterated (4 per cent. of added water).	10	6	Case withdrawn.
New Milk	,, ,,	Genuine	10	6	
New Milk	,, ,,	,, ...	10	6	
New Milk	,, ,,	,, ...	10	6	

Article submitted for Analysis.	*Who submitted the Sample.*	*Result of Analysis.*	*The Sum paid in respect of Analysis.* s. d.	*Observations.*
New Milk ..	Sanitary Inspector	Genuine	10 6	
New Milk ..	,, ,,	,, ...	10 6	
New Milk ..	,, ,,	,, ...	10 6	
New Milk ..	,, ,,	,, ...	10 6	
New Milk ..	,, ,,	,, ...	10 6	
New Milk ..	,, ,,	,, ...	10 6	
Malt Vinegar ..	,, ,,	,, ...	10 6	
Mustard	,, ,,	,, ...	10 6	
Pepper	,, ,,	,, ...	10 6	
Coffee	,, ,,	,, ...	10 6	
Pepper	,, ,,	,, ...	10 6	
Beer	,, ,,	,, ...	10 6	
Soda Water ..	,, ,,	,, ...	10 6	
Gin	,, ,,	,, ...	10 6	
Butter	,, ,,	,, ...	10 6	
Butter	,, ,,	,, ...	10 6	
Lard	,, ,,	,, ...	10 6	
New Milk ..	,, ,,	,, ...	10 6	
Golden Syrup ..	,, ,,	,, ...	10 6	
New Milk ..	,, ,,	,, ...	10 6	
New Milk ..	,, ,,	,, ...	10 6	
New Milk ..	,, ,,	,, ...	10 6	
New Milk ..	,, ,,	Adulterated (10 per cent. deficient in fat).	10 6	Vendor fined £5, and costs £3 5s.
New Milk ..	,, ,,	Genuine	10 6	
New Milk ..	,, ,,	Adulterated (15 per cent. of added water).	10 6	Vendor fined 10s., and costs 17s. 6d.
New Milk ..	,, ,,	Genuine	10 6	
New Milk ..	,, ,,	,, ...	10 6	
New Milk ..	,, ,,	,, ...	10 6	
New Milk ..	,, ,,	,, ...	10 6	
New Milk ..	,, ,,	,, ...	10 6	
New Milk ..	,, ,,	Adulterated (4 per cent. of added water & 4·77 grains of Boric Acid per pint).	10 6	Vendor fined £8, including costs.
New Milk ..	,, ,,	Genuine	10 6	
New Milk ..	,, ,,	Adulterated (16 per cent. of added water).	10 6	Vendor fined £2 10s. and costs £2 5s 6d.
New Milk ...	,, ,,	Adulterated (16 per cent. of added water).	10 6	Vendor fined £2 10s. and costs £2 5s. 6d.
New Milk ..	,, ,,	Genuine	10 6	
New Milk ..	,, ,,	,, ...	10 6	
New Milk ..	,, ,,	Adulterated (8 per cent. of added water).	10 6	No action taken.
New Milk ..	,, ,,	Genuine	10 6	
Chocolate Cream	,, ,,	,, ...	10 6	
French Gums ..	,, ,,	,, ...	10 6	
Acid Drops ..	,, ,,	,, ...	10 6	
Glycerine Jubes	,, ,,	,, ...	10 6	
New Milk ..	,, ,,	,, ...	10 6	
New Milk ..	,, ,,	,, ...	10 6	
New Milk ..	,, ,,	,, ...	10 6	
New Milk ..	,, ,,	,, ...	10 6	
New Milk ..	,, ,,	,, very poor in fat	10 6	Vendor cautioned.
New Milk ..	,, ,,	,, ...	10 6	
New Milk ..	,, ,,	,, ...	10 6	
New Milk ..	,, ,,	,, ...	10 6	
New Milk ..	,, ,,	Adulterated (33 per cent. deficient in fat).	10 6	Vendor fined £1, and costs 17s. 6d.
Skim Milk ..	,, ,,	Genuine	10 6	
Butter	,, ,,	,, ...	10 6	
Butter	,, ,,	,, ...	10 6	
Lard	,, ,,	,, ...	10 6	
Margarine ..	,, ,,	,, ...	10 6	
Lard	,, ,,	,, ...	10 6	
New Milk ..	,, ,,	,, ...	10 6	
New Milk ..	,, ,,	,, ...	10 6	

Article submitted for Analysis.	*Who submitted the Sample.*	*Result of Analysis.*	*The Sum paid in respect of Analysis.*	*Observations.*
			s. d.	
Whiskey..	..Sanitary Inspector	Genuine ..	.. 10 6	
Gin ..	... ,, ,,	,, ..	.. 10 6	
Brandy ..	.. ,, ,,	,, ..	.. 10 6	
New Milk	.. ,, ,,	,, ..	.. 10 6	
New Milk	.. ,, ,,	,, ..	.. 10 6	
New Milk	.. ,, ,,	,, ..	.. 10 6	
New Milk	.. ,, ,,	,, ..	.. 10 6	
New Milk	.. ,, ,,	,, ..	.. 10 6	
Butter ..	.. ,, ,,	,, ..	.. 10 6	
Butter ..	.. ,, ,,	,, ..	.. 10 6	
Butter ..	.. ,, ,,	,, ..	.. 10 6	
Lard ..	.. ,, ,,	,, ..	.. 10 6	
Butter ..	.. ,, ,,	,, ..	.. 10 6	
New Milk	.. ,, ,,	,, ..	.. 10 6	
Beer ..	.. ,, ,,	,, ..	.. 10 6	
Beer ..	.. ,, ,,	,, ..	.. 10 6	
Beer ..	.. ,, ,,	,, ..	.. 10 6	
Malt Vinegar	.. ,, ,,	,, ..	.. 10 6	

SLAUGHTER HOUSES.

The Slaughter Houses were regularly visited during the year, and on the whole were found to be in a satisfactory condition. Thirty-one licenses have been renewed and three transferred.

MARKETS.

I have visited the Markets regularly during the year. On May 9th, I seized a large quantity of bananas which were exposed for sale in the Market, also, later on the same day, I seized a small quantity of bananas which were exposed for sale in the street. These were afterwards condemned by a magistrate. On May 23rd, I attended Court to give evidence in the above cases, when the defendants were fined respectively £2 10s. including costs, or one month's imprisonment. Also on July 16th, I seized 20lbs. of strawberries which were exposed for sale. These were duly condemned by a magistrate. On September 5th, I attended Court to give evidence in this case, when defendent was fined £1 including costs.

During the year I examined 40 boats and 7 pecks of strawberries, 1 large case and 8 half cases of pears, 1 trunk and three-quarters of a barrel of codfish (at the request of the owners) on arrival at Luton, before being exposed for sale. These I found to be unfit for food, and forthwith caused the same to be condemned and destroyed.

FACTORY AND WORKSHOPS ACT.

The workshops visited during the year, with a few exceptions, were found to be in a satisfactory condition. No case of overcrowding was found. Twenty-two required white-washing, and two proprietors were ordered to provide separate sanitary accommodation for females. The necessary work has since been carried out.

One hundred and six occupiers of factories and workshops have sent in lists showing the names and addresses of persons employed by them as outworkers, in accordance with the Factories and Workshops Act, 1901. The number of outworkers registered is 901. These are only employed during part of the year, owing to the straw hat industry being a seasonal trade.

Numerous visits have been paid to these workshops, in order to remind the occupiers of their duty in the matter of furnishing lists of outworkers.

In conclusion, I again beg to thank the Council, particularly the Sanitary Committee, also the Town Clerk, Medical Officer of Health, and the Borough Surveyor for their kindness and consideration, shewn to me during the year, which have been invaluable in the discharge of the many duties devolving upon me as Sanitary Inspector.

I am, Gentlemen,

Your obedient Servant,

CHAS. WRIGHT.