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Borough of



Chelmsford.



ANNUAL REPORT

OF THE

Medical Officer of Health


(H. W. NEWTON, M.R.C.S., L.R.C.P., D.P.H.)

FOR

1908.

CHELMSFORD :

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Fairfield,

Chelmsford,

February 28th, 1909.

TO THE MAYOR AND OTHER MEMBERS OF
THE TOWN COUNCIL OF THE BOROUGH OF
CHELMSFORD.

GENTLEMEN,

I have the pleasure again to submit to you my Annual Report as your Medical Officer of Health. This Report, for the first time, will cover those parts of the Parishes of Springfield and Writtle that were in 1907 included in the Borough of Chelmsford. The past year has been a very satisfactory one, judged from a sanitary and medical standpoint, and I can again congratulate you upon the fact that the improvement in the vital statistics of the Borough—noticed and emphasized upon last year—has been fairly well maintained. In 1907 the Death-rate recorded was phenomenally low, the lowest yet recorded; in 1908 the Death-rate is a little higher, but it is still very low indeed. Both the Infantile Death-rate and the Zymotic Death-rate are still very low; in fact, almost as low as those recorded in 1907. I am, indeed, very glad to say the improvement noticed last year in the Birth-rate has been also maintained, so that we have in 1908 a Birth-rate higher than in 1907; but I am sorry to say it does not yet reach the average Birth-rate of the past ten years.

I can again congratulate you that there was no outbreak of Infectious Disease in 1908—in fact, fewer cases of Infectious Disease have been notified than has been the case for many years past.

Since my last annual Report the following are the most important sanitary improvements accomplished:—

- (1) A considerably increased available Water Supply.
- (2) New Water Mains to Waterhouse Estate, to Bradford Street, to the Borough Boundary, Writtle Road, and St. John's Road.
- (3) New Sewers, Wood Street and Long Stomps Road.
- (4) New Street Improvement completed.
- (5) Many Private Streets made up.

Also in regard to the Sewage Farm, a commencement has been made with the under-draining of the whole of the Sewage Farm that is available for irrigation.

Population and Area.

The census population of the original Borough taken in 1901 was 12,580; and the estimated population in June, 1907, was 13,750.

The estimated population of the acquired parts of Springfield and the Waterhouse Estate was given as 3,450.

Taking these figures as a correct basis, I estimate the population of the Borough of Chelmsford to be 17,200.

The area of the Borough, exclusive of inland water, is 2,854 acres; or, if inland water is included, the acreage is (according to your Municipal Diary for 1909) 3,015.

The number of inhabited houses is probably about 3,700—practically the same as given for 1907.

Births.

The total number of Births registered in the Borough during the year was 399. Of these, 221 were males and 178 were females. This gives a Birth-rate of 22.93 per 1,000. Thus the improvement in the Birth-rate commented upon last year has continued. It is to be hoped that this improvement may still continue, for the present Birth-rate is still below the average of the last ten years, which is itself considerably lower than the average rate of many towns. The Birth-rate for the whole of England and Wales for the past year was 26.27 per 1,000. This, I believe, is the lowest birth-rate yet recorded for the whole country. The Birth-rate has, unfortunately, steadily fallen since 1876, when it reached the high figures of 36.3 per 1,000. This continuous fall in the Birth-rate is most deplorable and most serious. But why the Birth-rate in a district like Chelmsford should be 3.34 per 1,000 less than the average rate of the whole country is a fact upon which I can offer no explanation.

Deaths.

During the past year 232 Deaths have been registered as having taken place in the Borough. Of this number 51 were deaths of non-residents or aliens.

The total Death-rate, therefore, for the year is 13.35 per 1,000, and the corrected or nett Death-rate for the year is 10.33 per 1,000.

This year again I can call attention with great satisfaction to this low return. It is only slightly higher than that for the preceding year, which was extraordinarily low. It will be seen that the average Death-rate for the past ten years has been about 13 per 1,000. Therefore, this low return is again a matter of congratulation.

Again the Infantile Death-rate and the Zymotic Death-rate are both very low and very satisfactory.

The ages at death of those resident in the Borough (excluding aliens) were as follows:—

27	or	14.6	per cent.	were	under	1	year	of	age	
8	or	4.4		„	were	over	1	year	and	under
										5
11	or	6.7		„		5	years	„	15	„
4	or	2.5		„		15	years	„	25	„
54	or	29.8		„		25	years	„	65	„
77	or	41.3		„		65	years	of	age.	

In regard to Table IV. (Causes of Death):—

9 or 4.9 per cent. of Deaths were due to Zymotic diseases.

12 or 6.6 per cent. of Deaths were due to Tubercular diseases of all forms.

10 or 5.5 per cent. of Deaths were due to Cancer and all other forms of Malignant disease.

29 or 16.1 per cent. of Deaths were due to Bronchitis and Pneumonia.

30 or 16.5 per cent. of Deaths were due to diseases of the Heart of all forms.

66 or 36. per cent of Deaths were due to all other causes of death (not classified).

In comparing the causes of Death for 1908 with those of the previous year, it will be seen that the Zymotic Death-rate is higher, due almost entirely to four fatal cases of whooping cough. Also it will be seen that diseases of the heart have caused 16.5 per cent. of the deaths recorded. This is very considerably higher than is usual, the explanation for which it is not possible to give. Once again I am glad to say that Infantile Diarrhœa has only caused one death. Influenza has been certified to have caused four deaths. These were all in persons well advanced in years.

Probably the most satisfactory return of all the causes of death is that of Tubercular Diseases of all forms. Twelve deaths, or 6.5 per cent. of all deaths, were registered as being caused by tubercle in some form or other. In 1907 the return was 16 cases, or 12.3 per cent. of all deaths. This is a most marked improvement. Of these 12 deaths, nine only were due to Pulmonary Tuberculosis, or Phthisis. This gives a death-rate of .44 per 1,000 only—by far the lowest yet recorded.

The deaths due to this disease during the past ten years are:—

	1908.	1907.	1906.	1905.	1904.	1903.	1902.	1901.	1900.	1899.
Deaths ...	9	12	11	9	13	11	10	16	16	18
Rate per } 1,000	.44	.87	.81	.67	.98	.84	.76	1.27	1.30	14.9

This steady and regular decrease in the Phthisis death-rate is one of the most notable facts. I would here point out that in giving these figures I am, of course, excluding all those cases of Tubercular Diseases in aliens. I give below the full details of all cases of Tubercular deaths:—

Date.	Sex.	Age.	Locality.	Variety and Certificate.	Remarks.
21/1/08	F.	27	Park Avenue	Acute general tuberculosis	(alien)
3/2/08	F.	9	Up.Roman Rd.	General tuberculosis. Pulmonary abdominal menengear	
10/3/08	F.	10	Infirmery	Tubercular peritonitis	
23/3/08	M.	42	Unionhouse	Tuberculosis of lungs and bowels	
24/5/08	F.	52	Victoria Road	Pulmonary tuberculosis	
24/6/08	M.	41	High Street	Enteric fever. Acute general tuberculosis	
17/5/08	F.	63	St. Ann's place, Springfield	Phthisis and pneumothorax	?
21/6/08	M.	24	Unionhouse	Acute phthisis	(alien)
6/7/08	F.	33	Infirmery	Tubercular kidney uroemia	(alien)
17/7/08	F.	37	Unionhouse	General tuberculosis	
3/9/08	M.	5 mo.	Victoria Road	Tubercular enteritis	
5/9/08	M.	28	Marriages Sq.	Pulmonary tuberculosis	
19/9/08	F.	40	Rainsford Lane	Pulmonary tuberculosis. Exhaustion	
15/10/08	M.	5	Infirmery	Tubercular meningitis. Coma (alien)	
4/11/08	M.	26	Railway Street	Pulmonary tuberculosis following pneumonia	
6/11/08	M.	24	Baddow Road	Phthisis. Pulmonary hæmorrhage	
20/12/08	F.	5	Infirmery	Tubercular meningitis	Exhaustion (alien)

It will be seen from that list that the aliens have been, I think, rightly excluded from the figures given. In regard to the case in which the cause of death was given as Enteric Fever, Acute General Tuberculosis, it is, perhaps, difficult for me to say which was the actual cause of death. It is quite possible that the case was one of acute Tuberculosis from the onset; but it was notified to me as one of Enteric Fever, and as such I accepted it. But I have counted this as a case of Tuberculosis here.

It has been your practice, as the Sanitary Authority, for some time past to disinfect rooms after a death from Pulmonary Tuberculosis when such death was notified. In November, however, the Town Clerk, by your instructions, sent to all the Medical Practitioners in the Borough the following letter:—

BOROUGH OF CHELMSFORD.

Town Clerk's Office,
16, London Road,
Chelmsford.

4th November, 1908.

Dear Sir,

PREVENTION OF PHTHISIS.

The Town Council are desirous of taking all possible steps for preventing the spread of Phthisis, and, with this object, have made arrangements with the Registrars of Deaths to notify the Medical Officer of Health of the death in the Borough of any person suffering from that disease immediately the death has been registered, in order that in each case the portion of the house in which the death occurred may be disinfected as soon as possible after the funeral.

The Council feel satisfied that, in this action, they will have the hearty co-operation of the Medical Practitioners in the Borough, and I am to ask that you will kindly assist the Council by impressing upon the relatives of any of your patients who may die from such disease the desirability of leaving the room, in which the death takes place, unused until after it has been disinfected by the Inspector of Nuisances.

I am,

Yours faithfully,

W. SMITH,

Town Clerk.

I have now every reason to believe that thorough disinfection of all rooms, bedding, etc., used by cases of Pulmonary Tuberculosis will be dealt with by the Sanitary Authority.

I would here, dealing with this subject, strongly recommend that Pulmonary Tuberculosis should be added without delay to those diseases that come under the Notification of Infectious Diseases in the Borough. By the Order of the Local Government Board, Pulmonary Tuberculosis occurring in those patients who are in receipt of Poor Law relief became notifiable on January 1st, 1909. It is certainly an anomaly that this disease is notifiable in one class of patient only. I admit that the urgency of making this disease notifiable is much greater in the very poor; but at the same time I feel sure there are cases—and perhaps many of them—that would benefit by sanitary supervision. Should you adopt this recommendation and make Pulmonary Tuberculosis a notifiable disease, it will of necessity, especially at first, add considerably to the work of the sanitary officials. In time—and probably in a very short time—the question of providing suitable accommodation for cases of Pulmonary Tuberculosis will have to be very seriously considered. In my opinion,

this disease should be treated in much the same way as any other infectious disease—i.e., by isolation. Looking at Table IV. it will be seen that Tubercular diseases have this year caused more deaths than all the zymotic diseases together. Therefore, it is only reasonable to assume that tubercular diseases to be treated adequately should be treated separately, and the sick removed from the healthy. Yet this is frequently a most difficult matter to convince patients so suffering, and very frequently they will obstinately decline to be separated from their friends. Sanatorium treatment is frequently—or I may say usually—too expensive for the majority of patients. But if Pulmonary Tuberculosis is made a notifiable disease it must be your duty to provide some form of treatment whereby those suffering may be helped to recovery without exposing those around them to this very common, but insidious disease.

I have again this year kept special observation upon the deaths caused by Cancer and Malignant Diseases.

I again append details in full of the deaths caused by this form of disease:—

Date.	Sex.	Age.	Locality.	Variety.	Remarks.
16/2/08	M.	59	Legg Street	Malignant disease of stomach	
9/3/08	F.	80	Duke Street	Carcinoma of bowel and pelvic organs	
16/3/08	F.	55	Baddow Road	Cholelithiasis, cancer of liver	
28/4/08	F.	73	Unionhouse	Cancer of uterus	(alien)
30/5/08	F.	77	St. John's Rd.	Malignant disease of stomach	
22/6/08	M.	77	Unionhouse	Malignant disease of bladder	
9/7/08	F.	55	Hall Street	Cancer of breast Cancer of lung	Operation 2 years
25/7/08	M.	80	Mildmay Road	Malignant disease of liver	
11/8/08	M.	70	Baddow Road	Carcinoma of stomach.	Exhaustion
21/8/08	M.	57	Unionhouse	Cancer of pylorus of liver	(alien)
7/10/08	M.	67	New Street	Carcinoma of rectum.	Exhaustion (operation)
19/10/08	M.	61	Primrose Hill	Cholelithiasis. Carcinoma of liver. Mitral disease	

It will be seen that 12 deaths in all have been recorded. Of these two only were aliens. In 1907 there were in all 15 deaths, of which five were aliens.

It will be observed that of these deaths seven were males and five were females. The average age at death was 67.6 years, as against 66.5 years in 1907. In 1908, excluding the aliens, four deaths occurred in the North Ward and six in the South Ward. Again, I would call attention to the fact of the frequency with which, in this district, at least, malignant diseases affect some part of the digestive apparatus. Of these cases six affected the stomach and bowels and three affected the liver; only one case respectively affected the breast, the bladder, and the uterus. Again, no two cases have occurred in the same house.

Infantile Mortality.

The number of deaths among infants under one year of age during the past year was 27, or 14.6 per cent. of the total deaths.

This gives an infantile death-rate of 67.64 per 1,000 births. Again, this is a most favorable return; it is certainly slightly higher than the return of 1907; but it is a far lower return than will be found in most Boroughs of this size. The infantile mortality of the whole of England and Wales for last year was 118, and this is the lowest rate of infantile mortality recorded. To compare this with the rate of the Borough—i.e., 67.64—shews the record to be an exceptional one indeed.

The chief causes of death amongst infants during the year, it will be seen, was premature birth 6, atrophy or marasmus 6. Again, this year diarrhœa, as a cause of death,

occurred in only one case. I trust, as I remarked last year, that the true cause of this low diarrhoeal mortality may be explained as being due to more care having been taken in regard to the feeding and general cleanliness of the infants.

Zymotic Diseases.

Eight deaths this year from Zymotic Diseases have been registered, giving a Zymotic death-rate of .44 per 1,000.

Of these (vide Table IV.) whooping cough caused the greatest number of deaths.

The Zymotic death-rate per 1,000 for the last ten years has been :—

1908.	1907.	1906.	1905.	1904.	1903.	1902.	1901.	1900.	1899.
.44	.21	1.18	.82	.84	1.61	.86	2.94	1.22	1.06

This gives an average for the past ten years of 1.18 per 1,000, which is quite a low average. The return of .44 per 1,000 for 1908 shews up very well. Chelmsford has now for two years been very free from those diseases which so markedly increase the Zymotic death-rate. Measles, for instance, has been very prevalent in the districts immediately outside the Borough. Fortunately, the cases in the Borough have been light in character and have caused only two deaths. Again, also, has infantile diarrhoea been a very light factor in its mortality.

Notifiable Infectious Diseases.

The cases of Infectious Diseases notified during the year are tabulated in Table III.

It will be noticed that, including Springfield and the Waterhouse Estate, 37 cases only have been notified.

The months in which these cases were notified I give below:—

	Scarlet Fever.		Diphtheria.		Typhoid Fever.		Erysipelas.
January	4	...	1	...	—	...	1
February	—	...	2	...	—	...	—
March	—	...	—	...	—	...	—
April	4	...	—	...	3	...	—
May	—	...	—	...	2	...	—
June	—	...	—	...	1	...	—
July	1	...	—	...	1	...	1
August	—	...	4	...	—	...	—
September	3	...	—	...	—	...	—
October	2	...	—	...	—	...	1
November	1	...	3	...	—	...	—
December	1	...	—	...	—	...	—
	<hr/>		<hr/>		<hr/>		<hr/>
	16		10		7		3
	<hr/>		<hr/>		<hr/>		<hr/>

Puerperal Fever, one case, notified in January.

Nine cases were notified from the North Ward, 24 cases from the South Ward, and four from Springfield.

Of the patients suffering from notifiable disease, 28 were removed to the Isolation Hospital. This shews a very large proportion, indeed, of cases removed, and also it shews how very much this Isolation Hospital is appreciated. Indeed, it is now the very general request on the part of parents to at once remove cases of Infectious Disease to the Hospital.

House Accommodation.

I still think there is an adequate supply of houses of all kinds in the Borough. Unfortunately, as far as I know, there is no sign of any decreased rentals. This is, I believe, still the only complaint.

The general sanitary condition of the houses receives most careful attention. The water supply to w.c.'s is steadily and gradually being enforced, as also is the proper supply of galvanized iron dustbins. You always now insist upon the supply of water to w.c.'s and provision of dustbins, when attention is called to the absence of these necessary improvements. The one disadvantage to the enforced provision of these necessary sanitary adjuncts is that in almost every instance the landlord or his agent increases the rent at once, in such a way that the cost of such improvements is usually very soon recovered.

UNION YARD.

The houses in the lower part of this yard remain closed and unoccupied, with one exception. These houses are becoming very dilapidated, and some are in such a condition that they are almost dangerous.

FRENCH'S SQUARE.

These houses have been now repaired, and are in quite a fair state of repair. All, I believe, are now occupied, but should be kept under observation. These houses are usually occupied by a very careless class of tenant.

The yards and courts of Moulsham have again been frequently visited, and no nuisance of any moment has been found.

The House-to-House Inspection has, and is still being, carried on. Quite recently an Inspector of the Local Government Board visited the Borough in regard, I believe, to this work especially. He has made, I know, many valuable suggestions to your Inspector in regard to this work, which, I believe, will help him very considerably in carrying out this very necessary but somewhat monotonous work.

During the year no definite advance has been made with the problem of Housing the Working Class.

Sewerage and Drainage.

I have little, if anything, to add under this heading to what I reported last year. Throughout the Borough the condition is very satisfactory.

The ventilation of the sewers continues to remain practically at a standstill. Four sewer ventilators only have, I believe, been erected. One has been erected, certainly where it was wanted—i.e., by Messrs. Hoffmann's Works; two also have been erected in Anchor Street and one in the London Road. Time passes quickly along. It is now three years since this work was sanctioned by the Local Government Board. The Surveyor, however, tells me that others are in the course of erection.

I hear from time to time still of complaints arising from the discharge into the sewers of suction gas water from Messrs. Hoffmann's Works. As I remarked last year, this may be an efficient drain and sewer tester, but it certainly is a nuisance at times. I hope that the newly-erected sewer ventilator may obviate this trouble to a large extent.

The sewerage of the Waterhouse Estate has not yet been completed. The main sewer is completed, and the Borough Surveyor has the work of putting the branch drains now in hand, and will, I hope, be able to complete the work very shortly.

During the year new sewers have also been laid in Wood Street and in Long Stomps Road. A relief sewer has been laid in Victoria Road to relieve this portion of the district in time of flood. Also the sewer has been extended from Admiral's Park to the Borough Boundary.

At the Sewage Farm a commencement has been made with the underdraining of the whole of the Sewage Farm that is available for irrigation.

Removal and Disposal of House Refuse.

I much regret to report that no improvement has been made in regard to the disposal of House Refuse.

The removal is done in very great part by the Corporation, under the direction of the Borough Surveyor. From Springfield and the Waterhouse Estate, I believe, it is still done by contract. In regard to the removal, it is done as well and as efficiently as possible. The Surveyor is able, with the amount of labor at his disposal, to collect the refuse from the houses weekly. It would be a great advantage—and in the hot weather a great sanitary improvement—if it could be done daily or on alternate days. I admit this would be a very considerable expense; but I am quite sure in the hot weather house refuse should be removed more than once a week. Especially should this be done in regard to the cottages, where dustbins are often dilapidated and usually left uncovered.

In regard to the disposal of House Refuse: At the beginning of the year it was tipped in a field off Beehive Lane, but complaints were made, and the Surveyor received directions to close this “tip.” He then removed his “tip” to a field on Widford Hall Farm; but he was soon compelled to abandon this site at the instance of the Rural District Council. The Medical Officer to the Rural District Council describes this refuse tipping as “the chief nuisance in our district.” He says it was being dumped in a most careless manner, etc. I do not think your Surveyor will agree with these remarks. Following the abandonment of this tip, the refuse was tipped in a gravel pit in Springfield; but again complaints were made and the tip closed. I believe it is now disposed of again on Widford Hall Farm, but I expect before long fresh complaints will be made and another site will have to be selected. I again suggest that there is before you only one solution to this difficulty—i.e., a Refuse Destructor.

Water Supply.

The Water Supply of the Borough continues to be derived from the sources previously reported upon:—

- (1) Deep Well, Mildmay Road.
- (2) Burgess Well.
- (3) Admiral's Park Well.

Springfield continues to be supplied by water from the Rural District Council's Well in the Parish of Great Baddow.

The Borough Surveyor informs me that the yield from the Borough Wells has during the past year not altered materially in quantity from that of the previous year. He estimates the daily supply available is about 250,000 gallons—i.e.:—

Deep Well, Mildmay Yard	150,000
Burgess Well	30,000
Admiral's Park Well	70,000
	<hr/>
	250,000 gallons
	<hr/>

This allows a daily supply, omitting Springfield, of over 17 gallons per head per day.

I am still of opinion, having no reserve supply to fall back upon, the available water supply is inadequate, and should be increased. I am indeed glad to note that Burgess Well and Admiral's Park Well shew no further signs of failing in their daily available supply. The Borough Surveyor tells me that he hopes very shortly to get a considerably increased supply from the Deep Well. In this I trust he may be successful; but in the event of an increased supply being obtained, I hope the great purity of this supply will be maintained.

During the past year a very large number of defective water fittings and service pipes have been discovered. Proper fittings and new service pipes have been put in. This, in itself, has saved an enormous amount of water waste, and hence has given an increased daily available supply. By discovering these sources of waste of water, the North Ward has now practically a constant service. In the South Ward, I believe, constant service has been extended to 75% of the houses. The remaining 25% are on service from 6 a.m. until 3 p.m. This I consider to be one of the chief works achieved during the year, and I congratulate the Borough Surveyor most heartily upon having accomplished such an important sanitary service with the limited daily supply available. I would still further urge that in order that this constant service may be maintained a further supply should be available in case of urgency. I am glad to be able to report that the water supply to the Waterhouse Estate has been completed. New water mains have also been laid in Bradford Street and from the Water Tower to the Borough boundary.

The purity of the Borough Water Supply is shewn by the analyses given below. The results are given in grains per gallon:—

	Mildmay Road Deep Well.	Admiral's Park.	Burgess Well.
Total Solid Matter...	79.60	30.08	29.00
Chlorides	23.81	2.00	2.10
Equal to Chloride of Sodium	39.22	3.29	3.46
Nitrates expressed as Nitrogen	None.	.45	.62
Free Ammonia .....	.0133	.0007	.0022
Albuminoid Ammonia	.0010	.0022	.0021
Oxygen absorbed in 15min. at 140° F.	.0196	.0112	.0112

	Mildmay Road Deep Well.	Admiral's Park.	Burgess Well.
Appearance in 2ft. tube	Clear pale green.	Clear pale blue.	Clear.
Smell when heated to 100° F.	None.	None.	None.
Metals	None.	None.	None.
Microscopic Examina- tion	Slight deposit of earthy matter.	No deposit	Slight deposit of oxide of iron

REMARKS re MILD MAY ROAD DEEP WELL.

Total Solid Matter and Chlorides rather high.

Nitrates completely absent: Albuminoid Ammonia and Oxygen absorbed are both low, and show the absence of organic matter.

I consider this water is unpolluted and fit for drinking purposes.

ADMIRAL'S PARK AND BURGESS WELLS.

Total Solid Matter, Chlorides, and Nitrates are low and satisfactory.

Free and Albuminoid Ammonias and Oxygen absorbed are low and shew the absence of organic matter.

I consider these waters are unpolluted and fit for drinking purposes.

H. W. NEWTON,

Medical Officer of Health.

October, 1908.

ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH FOR THE YEAR 1908 FOR THE BOROUGH OF CHELMSFORD,

On the administration of the Factory and Workshop Act, 1901, in connection with

FACTORIES, WORKSHOPS, WORKPLACES, AND HOMEWORK.

1.—INSPECTION. Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
FACTORIES ... (Including Factory Laundries.)	174	32	—
WORKSHOPS ... (Including Workshop Laundries.)			
WORK PLACES ... (Other than Outworkers' premises included in Part 3 of this Report).			
Total ...	174	32	—

2.—DEFECTS FOUND.

Particulars.	Number of Defects.			Number of Prosecutions
	Found.	Remedied.	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts :</i>				
Want of Cleanliness	8 w.c.'s	Cleansed 8		
Want of Ventilation	1	1		
Overcrowding				
Want of drainage of floors				
Other nuisances	51	51		
Sanitary accommo- dation. { Insufficient	18	18		
{ Unsuitable or defective				
{ Not separate for sexes				
<i>Offences under the Factory and Workshop Act :—</i>				
Illegal occupation of underground bakehouse (s. 101)				
Breach of special sanitary require- ments for bakehouses (ss. 97 to 100)	1	1		
Other offences (Excluding offences relating to out- work which are included in Part 3 of this Report.)				
Total	79	79		

3.—HOME WORK.

OUTWORKERS' LISTS, SECTION 107.																							OUTWORK IN UNWHOLESALE PREMISES, SECTION 108.				OUTWORK IN INFECTED PREMISES, SECTION 109, 110.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
NATURE OF WORK.	Lists received from Employers.										Addresses of Outworkers.				Prosecutions.				Inspections of Outworkers' premises.	(13)	(14)	(15)	(16)	Instances.	(17)	(18)	Prosecutions (Sections 109, 110).	(19)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
	Twice in the year.		Once in the year.		Lists.	Con-tract's men.	Work-men.	(4)	(5)	(6)	(7)	(8)	(9)	(10)	Prosecutions.		(11)	(12)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	Lists.	Con-tract's men.	Outworkers.												Failing to keep or permit in-spection of lists.	Failing to send lists.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
Wearing apparel— (1) making, &c. (2) cleaning and washing Lace, lace curtains and nets... Artificial flowers ... Nets, other than wire nets ... Tents ... Sacks ... Furniture and upholstery ... Fur pulling ... Feather sorting ... Umbrellas, &c. ... Carding, &c., of buttons, &c. Paper bags and boxes Basket making ... Brush making ... Racquet and tennis balls ... Stuffed toys ... File making ... Electro-plate ... Cables and chains ... Anchors and grapnels Cart gear ... Locks, latches and keys Pea picking ... Total	12	...	67	67

4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year.						Number.
(1)						(2)
Important classes of workshops, such as workshop bake- houses, may be enu- merated here.	Bakehouses	...	..	...	...	20
	Dressmaking	...	...	...	...	13
	Millinery	...	...	...	...	11
	Costumes	...	...	...	...	5
	Underclothing	...	...	...	...	2
	Harness	...	...	...	...	3
	Furniture Hangings	...	...	...	...	2
	Plumbers	...	...	...	...	22
	Builders	...	...	...	...	8
	Rag Sorting	...	...	...	...	2
	Cycles ...	...	...	...	...	3
	Tailors...	...	...	...	...	2
Total number of Workshops on Register						93

5.—OTHER MATTERS.

Class.	Number.
(1)	(2)
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (s. 133)	
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5) :—	
Notified by H.M. Inspector	4
Reports (of action taken) sent to H.M. Inspector	4
Other	
Underground Bakehouses (s. 101) :—	
Certificates granted during the year	
In use at the end of the year	1

TABLE I.
BOROUGH OF CHELMSFORD.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1908 AND PREVIOUS YEARS.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		TOTAL DEATHS REGISTERED.				TOTAL DEATHS IN PUBLIC INSTITUTIONS.	Deaths of Non-residents registered in Public Institutions.	Deaths of Residents registered in Public Institutions beyond the District.	NETT DEATHS AT ALL AGES.	
		Number.	Rate*	Under 1 year of Age.	At all Ages.	Rate*	Number.				Number.	Rate*
1	2	3	4	5	6	7	8	9	10	11	12	13
1898	11,977	325	27.08	24	73.84	206	17.16	70	46	...	160	13.30
1899	12,116	290	23.29	29	100.00	187	15.43	56	40	...	147	12.14
1900	12,250	394	29.47	35	88.83	247	20.46	50	28	...	219	15.96
1901	12,589	371	28.48	41	110.15	236	18.69	81	41	...	195	15.44
1902	12,794	296	22.74	29	99.05	212	16.77	69	48	...	174	13.76
1903	13,000	327	25.15	32	98.65	204	15.69	71	48	...	156	12.00
1904	13,150	336	25.63	22	65.42	183	13.91	64	37	...	146	11.10
1905	13,320	293	21.99	30	102.38	176	13.21	55	32	...	144	10.80
1906	13,500	266	19.70	36	135.33	231	17.10	77	42	...	189	14.00
1907	13,750	300	21.81	18	60.00	192	13.96	91	62	...	130	9.40
Averages for years 1898-1907	12,844	319.8	24.53	29.6	93.36	207.4	16.23	68.4	42.4	...	166	12.79
1908	17,200	399	22.93	27	67.64	232	13.35	85	51	...	181	10.53

*Rates in Columns 4, 8, and 13 calculated per 1,000 of estimated population.

Area of District in acres (exclusive of area covered by water), 2,854. Total population at all ages ... 12,580 } at census
Number of Inhabited Houses ... 2,755 } of 1901.
Average number of persons per house ... 4.61 }

I.		II.		III.	
Institutions within the District receiving sick and infirm persons from outside the District.		Institutions outside the District receiving sick and infirm persons from the District.		Other Institutions, the deaths in which have been distributed among the several localities in the District.	
Chelmsford Infirmary	...	Chelmsford Infectious Hospital	...	Nil	
Chelmsford Union Workhouse Infirmary	...	The London Hospitals	...	...

Is the Union Workhouse within the District? Yes

TABLE III.
BOROUGH OF CHELMSFORD.
CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR, 1908.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.						TOTAL CASES NOTIFIED IN EACH LOCALITY.			NO. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.			
	At all Ages	At Ages—Years.					North Ward.	South Ward.	Spring-field Ward.	North Ward.	South Ward.	Spring-field Ward.	Total cases removed to Hospital.
		Under 1	1 to 5	5 to 15	15 to 25	25 to 65								65 and upwards
Small-pox
Cholera
Diphtheria (including Membranous Group)	10	1	4	1	4	..	3	5	2	3	2	8	
Erysipelas ..	3	5	8	3	3	..	5	3	2	8	2	15	
Scarlet Fever	16	..	..	..	..	..	..	..	..	..	..	..
Typhus Fever	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	7	..	2	1	4	..	1	6	..	5	..	5	
Relapsing Fever	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	1	..	..	..	1	..	..	1	..	..	..	..
Plague ..	..	..	..	..	..	..	..	..	..	..	..	..
Totals ..	37	6	14	5	12	..	9	24	4	8	16	4	28

Isolation Hospital ... Joint Hospital, Baddow Road. Total available beds, 21. Number of Diseases that can be concurrently treated, 2.

TABLE IV.
BOROUGH OF CHELMSFORD—CAUSES OF, AND AGES AT, DEATH DURING YEAR 1908.

CAUSES OF DEATH.	DEATHS IN WHOLE DISTRICT AT SUBJOINED AGES.						DEATHS IN LOCALITIES (AT ALL AGES).			DEATHS IN PUBLIC INSTITUTIONS.	
	All ages.	Under 1 year	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards	North Ward.	South Ward.		Springfield Ward.
Small-pox ...	2	...	1	1	...	...	...	...	1	1	...
Measles ...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever ...	4	2	2	...	...	...	...	1	2	1	...
Whooping Cough ...	1	...	1	...	...	...	...	1	...	...	...
Diphtheria (including Membranous Croup)	...	...	...	...	...	...	...	...	...	...	...
Croup ...	...	...	...	...	...	...	...	...	...	...	...
Fever { Typhus	1	...	...	...	...	1	...	1	...	...	...
Enteric ...	...	...	...	...	...	...	...	...	...	...	...
Other continued	4	...	...	...	...	2	2	3	1	...	...
Epidemic Influenza ...	...	...	...	...	...	...	...	...	...	...	...
Cholera ..	...	...	...	...	...	...	...	...	...	...	...
Plague ...	1	1	...	...	...	...	...	...	1	...	...
Diarrhoea ...	...	...	...	...	...	...	...	...	...	...	...
Enteritis ...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever ...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas ...	9	...	...	1	1	7	...	4	4	1	2
Phthisis (Pulmonary Tuberculosis)	3	1	...	2	...	4	6	2	1	...	2
Other Tuberculous Diseases	10	...	...	...	...	6	7	4	5	4	2
Cancer, Malignant Disease	18	3	2	1	...	3	2	5	9	...	4
Bronchitis ...	11	3	2	...	...	...	...	5	4	2	...
Pneumonia ...	...	...	...	...	...	...	...	...	...	...	...
Pleurisy ...	...	...	...	...	...	...	...	...	...	...	...
Other Diseases of Respiratory Organs	...	...	...	...	...	...	...	...	...	...	...
Alcoholism ...	2	...	...	...	...	2	...	1	1	...	...
Cirrhosis of Liver ...	...	...	...	...	...	...	...	...	...	...	...
Veneral Diseases	6	6	...	...	...	...	...	1	3	2	2
Premature Birth ...	...	...	...	...	...	...	...	...	...	...	...
Diseases and Accidents of Parturition	30	...	...	1	2	12	15	11	15	4	16
Heart Diseases ...	2	1	...	...	1	...	...	1	1	1	...
Accidents ...	3	...	...	...	...	2	...	1	1	2	...
Suicides ...	6	6	...	...	...	...	...	2	2	...	...
Marasmus ...	2	2	...	...	...	...	...	2	...	...	...
Infant Convulsions	66	2	...	5	...	15	44	19	41	6	53
All other causes	...	...	...	...	...	...	...	...	...	...	...
All causes	181	27	8	11	4	54	77	64	92	25	83

TABLE V
BOROUGH OF CHELMSFORD—INFANTILE MORTALITY DURING THE YEAR 1908.
Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.															Total Deaths under One Year.								
All Causes.	Certified ...	Uncertified	...	...	...	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	27	
i. Common Infectious Diseases.	Small-pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Measles	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Diphtheria (includ. Membranous Croup)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Whooping Cough	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
ii. Diarrhoeal Diseases.	Diarrhea, all forms	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
	Enteritis, Muco & Gastro-enteritis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Gastritis, Gastro intestinal Catarrh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
	Premature Birth...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
iii. Wasting Diseases.	Congenital Defects	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6
	Injury at Birth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
	Want of Breast-milk, Starvation	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
	Atrophy. Debility, Marasmus...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
iv. Tuberculous Diseases.	Tuberculous Meningitis...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9
	Tuberculous Peritonitis: Tabes Mesenterica }	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
	Erysipelas ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Syphilis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Meningitis (not Tuberculous)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
v. Other causes.	Convulsions	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
	Bronchitis...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
	Laryngitis...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Pneumonia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Suffocation, overlying	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Other Causes	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
																							27

Population (estimated to middle of 1908), 17,200.
Deaths from all Causes at all Ages, 181.

Whilst discussing water and water supplies, there is one matter that I feel I should call your serious attention to—that is to the fact that a very large proportion of the fire hydrants in the Borough are what are known as ball hydrants. I have referred to these before as defective fittings, but I feel I should again call your immediate attention to these hydrants and to ask you to have these removed, and I would suggest that screw-down hydrants be substituted. I consider ball hydrants at any time to be dangerous even on a constant water service.

Nuisances: Proceedings for Abatement.

Again I can report with pleasure that no nuisance of any moment has been brought to notice. During the past year a petition was received in regard to an “offensive trade” carried on at the back of the houses in High Street. After frequent examinations I made a special report to the Sanitary Committee, after which no notice has been taken of this business, and no further complaint received.

Places over which the Council have Supervision.

LODGING HOUSES.—There are only two in the Borough. They are frequently visited. They are clean and well-conducted. No nuisance has been found in connection with them.

SLAUGHTER HOUSES.—These are also frequently and regularly inspected. All have been found to be kept clean. All are well drained. I mentioned in my previous Report that the only improvement I could suggest would be a Public Abattoir.

DAIRIES, COWSHEDS, AND MILKSHOPS.—This year again very careful attention has been given to these. They are regularly inspected by your Inspector of Nuisances each

month, who reports to your Sanitary Committee each month the results of his inspection. Apart from this, a special examination of all these premises was made during the Spring by a specially-appointed Committee. Two days were taken over this inspection, and a special report of this inspection was laid before your Council. The result of this inspection was extremely favorable. There were many suggestions and recommendations made in regard to the cowsheds, all of which were willingly carried out by the respective owners. In one instance only was there any cowshed calling for adverse comment. That was in regard to one which came into the Borough by virtue of the extension of the Borough. In this instance it is difficult to believe that any sanitary supervision had ever been offered to this cowshed in particular. Following this complete examination of all the Dairies, Cowsheds, and Milkshops by the sanction of your Sanitary Committee, I directed your Inspector of Nuisances to take from every retailer of milk supplying milk in the Borough a sample of milk for special bacteriological examination. These samples were taken from milkmen actually delivering milk to consumers, placed in specially sterilized bottles, and sent for examination to the Clinical Research Association, London. In each instance the sample of milk was centrifugalized and the residue submitted to microscopical examination. This examination was chiefly directed to ascertain the presence or otherwise (1) of blood cells, (2) of pus cells, (3) of extraneous matter—i.e., excremental matter.

I am very glad to report that in no instance was there any report of blood or pus having been found; in few only was there any excremental matter found. I consider this is an extremely good report to have to make. In all, 28 samples were examined, and in no instance was a bad report received. I hope again this year that a similar examination may be

conducted. In those cases where excremental matter was found the dairy, if in the Borough, was visited and advice was given, in order that the contamination might cease. I wrote in one instance to the Medical Officer of Health to the Rural District Council in regard to the report received from one of the dairies in his district. The reply I received was not, to my mind, either satisfactory or helpful.

I again regret to report that nothing yet has been done towards the appointment of a Veterinary Inspector, who would regularly examine the cows kept for milking purposes. Personally, I feel very strongly that such an appointment is most desirable and will be, I hope, compulsory. It is quite easy to believe that in Rural Districts such an appointment would be opposed at first, but in a very short time the value of such an appointment and of the work done would be recognised and appreciated.

THE MARKET.—The Chelmsford Market is now regularly inspected by the Inspector of Nuisances, who is now accompanied by Mr. Lewis, Veterinary Surgeon. It was formerly the custom, apparently, to keep the cows in many instances unmilked until after the auction. They were then milked, and the milk was disposed of. The milk and the receptacle for receiving the milk, I am much afraid, were neither clean. If now any cows are milked in the Market the milk is seized and thrown away. I am sure this is a very wise step, for I have every reason to know this milk was grossly contaminated by filth. I am glad to report that all animals coming into the Market are now inspected by the Veterinary Surgeon. If any animal shews signs of disease the destination of the animal is ascertained, and the Sanitary Authority of that district is notified. I would, however, suggest going further than that. I would recommend that all animals which in

the opinion of the Veterinary Inspector shew undoubted signs of disease, especially of Tuberculosis, should be seized and destroyed. I would then suggest that the owner of such animal should be at once prosecuted for offering for sale animals unfit for the food of man. In regard to those animals the condition of which was not positive, I should advise that their ultimate destination be ascertained and the Sanitary Authority of that district be advised, in order that the animal could be kept under observation, and if killed the carcase could be examined before it was allowed to be sold. This, I believe, would be work of great value to the community at large. I admit it might cause some friction at first, but of the good ultimately there can be no doubt.

FACTORIES AND WORKSHOPS.—These again have received careful attention. With the Inspector of Nuisances I have recently made a special examination of all these buildings, to enquire especially into the sanitary conveniences attached to such factories, etc. Ample sanitary accommodation was in every instance offered. The w.c.'s were all found to be clean and in good order. The usual report of work done under this heading is appended.

OFFENSIVE TRADES.—There are, as before reported, only two in the Borough. These premises are frequently inspected. At all times they have been found to be clean and well kept. As I have already stated, one was the subject of a special petition to you, in regard to which I made several enquiries and examinations, the result of which I reported, and the question was not proceeded further with.

BAKEHOUSES.—These have been subjected to regular and frequent visits. All are clean and well kept. There is one underground bakehouse in the Borough. It is well ventilated and lighted. The drainage to this bakehouse has been recently improved.

Methods of Dealing with Infectious Diseases.

The methods of dealing with diseases of an infectious nature have been previously reported upon and remain unchanged.

Disinfection of clothing and bedding, etc., is carried out by the Joint Hospital Board. Infected premises are disinfected by your Inspector of Nuisances. Rooms, premises, etc., that have been occupied by patients suffering from Pulmonary Tuberculosis or from Cancer are now also cleansed and disinfected.

Isolation Hospitals.

As previously reported, the Isolation Hospitals available are: (1) Baddow Road; (2) Baker Lane, Galleywood.

They are managed by a Joint Hospital Board, composed of members of the Chelmsford Town Council and the Rural District Council of Chelmsford.

The Baddow Road Hospital receives only patients suffering from Scarlet Fever or Diphtheria, 14 beds being available for the former and 7 for the latter disease.

Up to the present time no provision has been made for receiving cases of Typhoid Fever, but I understand this question is before the Joint Hospital Board. I would urge that provision for receiving cases of this disease should be made without delay. The necessity of receiving or making provision for the reception of these cases was very fully exemplified in the Spring of last year. Notification of a case of Typhoid Fever was received in May. The case was that of a child in apparently the third week of the disease. There was no proper drainage to the cottage

in which the child resided. It fortunately stood by itself off the main road and well away from other houses. There were in this cottage: Father (a labourer), mother (who was pregnant), and four other children. At the time notification was received the mother was nursing the child as best she could, as no beds are available at the Isolation Hospital for the reception of this disease, and the reception of this case was denied at the Union Infirmary. The child had to be treated and nursed at home. The excreta had to be buried in the garden. It was at once treated with pechloride of mercury and buried in quick lime. Ultimately from this case the mother, one of the nurses, and three children developed the disease, fortunately with no fatal results. Ultimately, the cases, after much pressure, were taken into the Isolation Hospital when they were more or less convalescent. I give this instance to emphasize the necessity of providing some accommodation for this disease. Had this initial case occurred in one of the thickly-populated parts of the Borough, the results might have been much more serious. As it is, I have no doubt the ultimate cost of this localized outbreak must have been very heavy.

Once again, also, I would urge the advisability of adding a Discharge or Convalescent Block to this Hospital. I believe that the Hospital at Baker Lane, Galleywood, is used for this purpose. This building was erected especially for Small-Pox cases, and should be absolutely reserved for such cases.

During the past year 28 cases only of Infectious Disease in all were removed from the Borough to the Isolation Hospital. I include in this number the five cases of Typhoid Fever I have previously discussed. They were practically convalescent when removed. Of the 28 cases, eight were removed from the North Ward, sixteen from the South Ward, and four from Springfield. Fifteen were cases of Scarlet Fever, and eight of Diphtheria.

Improvements in Progress or Required.

- (1) Increased or additional Water Supply.
- (2) Replacement of Ball Hydrants by screw-down hydrants.
- (3) Refuse Destructor.
- (4) Sewer Ventilation.
- (5) Appointment of Veterinary Inspector to examine all Cows from which the Borough Milk Supply is derived.

I append the Report of your Inspector of Nuisances.

I have the honor to be, Gentlemen,

Your obedient Servant,

H. W. NEWTON,

M.R.C.S., L.R.C.P., D.P.H.

Medical Officer of Health.

SUMMARY OF WORK

performed by the INSPECTOR OF NUISANCES

In the Borough of Chelmsford, during the Year
ended 31st December, 1908.

Complaints received	...	...	...	47
Nuisances detected without complaint	...	...	...	897
Nuisances abated	...	...	...	866
Preliminary Notices served	...	...	...	421
Summonses taken out	...	...	...	Nil
Convictions	...	...	...	Nil
Houses inspected under the heading of House-to-House Inspection	...	...	...	372
Common Lodging Houses (inspected weekly)	...	...	...	2
Slaughter Houses (inspected weekly)	...	...	...	9
Bakehouses (visited monthly)	...	...	...

Dairies, Cowsheds, and Milkshops:—

Cowsheds 6, Dairies 13, Milkshops 16. All these premises have been properly lime-washed at least twice a year.

New floors laid to Cowsheds	...	...	...	2
New drains laid to Cowsheds...	...	...	...	2
Cesspools, with endless chain pump, provided to Cowshed	...	...	...	1
Cowsheds ventilated	...	...	...	3
Limewashed by request	...	...	...	6

A case of Anthrax was reported at one of these Cowsheds. All the Cows upon the premises were thoroughly inspected by a Veterinary Surgeon, and no second case occurred upon these premises.

Filthy houses cleansed, Sec. 46, Public Health Act, 1875	...	...	...	12
Houses fumigated	...	...	...	43
Library books fumigated	...	...	...	3

Patients removed to Isolation Hospital:—

Scarlet Fever	...	...	...	...	16
Diphtheria	...	...	...	...	9
Typhoid Fever	...	...	...	...	5

N.B.—One convalescent case removed to Workhouse
Infirmary for her confinement.

Overcrowding abated	...	...	...	...	4
Houses closed	...	...	...	...	Nil
Cisterns cleansed, repaired, or covered	...	...	...	...	61
Animals improperly kept removed	...	...	...	...	34
Samples of water taken for analysis	...	...	...	...	7
Cesspools emptied (only from the Waterhouse Estate)	...	...	...	...
Sink waste pipes disconnected	...	...	...	...	6
Glazed gully traps fixed	...	...	...	...	54
Water closets cleansed or repaired	...	...	...	...	61
Flushing apparatus provided to water closets	...	...	...	...	48
Storage tanks provided	...	...	...	...	47
Flushing apparatus repaired	...	...	...	...	63
Drains tested	...	...	...	...	85
Drains unblocked	...	...	...	...	46
Drains ventilated	...	...	...	...	7
Drains intercepted	...	...	...	...	13
Soil pipes found defective	...	...	...	...	17
Waste of water detected	...	...	...	...	41
Ashpits repaired	...	...	...	...	1
Galvanized iron sanitary dustbins provided	...	...	...	...	32
Accumulation of manure removed	...	...	...	...	49
Manure pits built or repaired	...	...	...	...	4
Urinals cleansed or repaired	...	...	...	...	16
Gutterings repaired or cleaned out	...	...	...	...	23
Dilapidated paving of back yards repaired	...	...	...	...	12
Earth closets converted into water closets	...	...	...	...	3
Samples of milk taken for clinical observations	...	...	...	...	28
Caravans inspected	...	...	...	...	94

ELEMENTARY SCHOOLS WITHIN THE BOROUGH, viz.:—

Victoria	Boys.
„	Girls.
„	Infants.
Friars Council	Boys.
„	Girls.
„	Infants.
St. John's	Boys.
„	Girls.
„	Infants.
St. Peter's	Infants.
Roman Catholic	Mixed.
Springfield	Mixed.
Trinity	Infants.

These School buildings have been fumigated twice during the year.

OFFENSIVE TRADES.

There are only two in the Borough, viz.: Messrs. Dixon and Son and Mr. J. Budd's. The premises were frequently inspected, and found to be kept in a satisfactory condition.

FACTORY and WORKSHOP ACT:—

Workshops inspected	...	...	...	...	93
Ventilation provided to water closet buildings	...	...	...	...	2
Filthy pans to w.c.'s cleansed	...	...	...	...	9
w.c.'s limewashed	...	...	...	...	8
Flushing apparatus to w.c. repaired	...	...	...	...	7
New pedestal w.c.'s fixed	...	...	...	...	4
Drains unblocked	...	...	...	...	6
New pans to w.c.'s provided	...	...	...	...	4
Workshops limewashed	...	...	...	...	9
Earth closets cleansed	...	...	...	...	1
Sink waste pipes disconnected	...	...	...	...	1

WILLIAM KIRKHAM BAKER.

Cert. Royal Sanitary Institute,

Inspector of Nuisances.