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# ANNUAL REPORT

OF THE

## Medical Officer of Health

OF THE

### ST. ALBANS

## URBAN SANITARY AUTHORITY

FOR THE YEAR 1913,

BY

### HENRY E. MAY,

M.A., M.B., B.C., CANTAB.,

### MEDICAL OFFICER OF HEALTH,


ETC., ETC.,

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ST. ALBANS:

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**To the Mayor and Corporation of the  
City of St. Alban.**

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GENTLEMEN,

I have the honour to present to you my Report for the past year as Medical Officer of Health for the City of St. Alban.

St. Albans, which is situated on a hill with its steepest side facing nearly south, stands about 400 feet above sea level, and is therefore particularly healthy as a residential site.

Though there are patches of clay to be found the soil of the greater part of the district is gravel resting upon a deep deposit of chalk, from which a very pure and abundant water supply is obtained.

I am indebted to Mr. John Hopkinson, of Watford, who has kindly supplied me with all the following Meteorological observations (except sunshine) taken at the Herts County Museum, St. Albans,

The nearest point at which the sunshine records are observed is at Berkhamstead, and I am indebted to Mr. Edward Mawley for kindly supplying me with the records as taken at his private residence, Rosebank, Berkhamstead.

**Temperature.**—The highest temperature 83·4° F was registered during the month of June, and the lowest temperature 24·7° F was registered in January.

**Rainfall.**—The total rainfall was 23·98 inches. This is considerably less than last year, and is a small rainfall as compared with the average for St. Albans over a lengthened period, which is 26 to 27 inches.

The number of days on which rain fell was 190.

The driest month of the year was June, when rain fell on only 9 days and ·61 inches were registered.

The month with the highest rainfall was October, when rain fell on 18 days and 3·58 inches were registered.

**Sunshine.**—May was the sunniest month in the year when the sun shone for 29 days, and 207 hours were recorded.

In January the sun only shone on 16 days, and 36 hours were recorded.

1913.	TEMPERATURE IN SHADE. ABSOLUTE.			CLOUD. 0—10	Re- lative Humid. ity. %	RAINFALL.		SUNSHINE.	
	Mean °	Max. °	Min. °			Amount Inches.	Days.	Amount Hours.	Days.
January ..	39·3	50·0	24·7	7·9	92	3·11	21	36	16
February ..	39·9	57·4	24·9	7·6	86	·95	14	58	20
March ..	43·3	56·0	26·9	7·8	83	2·52	24	102	26
April ...	46·0	66·4	27·0	7·5	79	3·51	22	119	27
May ...	54·5	81·3	36·0	6·8	73	1·69	9	207	29
June ...	58·8	83·4	42·6	7·0	68	·61	9	203	30
July ...	58·2	76·9	43·3	9·0	80	1·64	13	106	29
August ...	60·6	81·8	46·1	7·0	76	1·04	11	159	29
September	58·3	75·9	42·6	7·0	84	1·25	13	122	27
October ...	52·6	65·9	32·5	7·1	91	3·58	18	104	27
November.	46·5	57·9	29·3	7·8	91	3·15	21	85	24
December.	40·5	52·4	26·1	7·3	91	·93	15	43	16
YEAR ...	49·8	83·4	24·7	7·5	83	23·98	190	1344	300

Very warm ; unusually cloudy, especially in July ; rather small rainfall, but on many days ; very few heavy falls, owing to few thunderstorms.

## Extension of City Boundaries.

On November the 9th, 1913, the Boundaries of this City were extended, whereby 1,698 acres are added to the already existing 997 acres, making a total of 2,695 acres.

The number of inhabited houses is increased to 5,100, and the population is increased from 18,437 persons to 24,300 persons.

At the same time the City was divided into 3 Wards, namely, North, South and East, the area, population, and number of inhabited houses of which is shewn in the following table :—

	Area in Acres.	Population.	No. of Inhabited Houses.
North Ward	... 650·380	8,700	1,800
South Ward	... 1014·840	10,000	2,100
East Ward	... 1030·495	5,600	1,200
Total	... 2695·715	24,300	5,100

But inasmuch as this extension only took place seven weeks before the end of the year, it would be confusing and impracticable to give you statistics such as Birth rate, Death rate, and number of Infectious Diseases, etc., for so short a period. For the purposes of this Report, therefore, I am assuming that the extension did not take place till January 1st, 1914, and all matters contained herein, unless otherwise specified, refer to the old city only.

## Area and Population.

The area of the city comprises 997 acres, 1 rood, 13 poles, and has a population according to the Census of 1911 of 18,132 persons, and estimated up the end of 1913 as 18,437 persons.

For the purposes of this Report the population is estimated by deducting the Deaths and adding the Births to the estimated population for the year 1912.

The number of inhabited houses in the District is estimated as 4,146, which with a population of 18,437 gives the average number of persons per house as 4.44.

### Vital Statistics.

**Births.**—The total number of Births registered during the year was 355, consisting of 202 males and 153 females.

From this must be deducted 2 males and 3 females who though born in the District do not belong to the District, and to this number must be added 1 male and 1 female who though belonging to the District were born outside the District.

This gives the total number of Births belonging to the District as 352 (201 males and 151 females). 9 of these (3 males and 6 females) were illegitimate. This gives a Birth rate of 19.09 per 1,000 population.

The Birth rate for the year 1912 was 19.07.

**Deaths.**—The number of Deaths registered in the District during the year was 243, which with a population of 18,437 gives a gross Death rate for the year of 13.18 per 1,000 population.

14 of these Deaths took place in St. Albans Hospital, 11 of which do not belong to this District, 1 took place at the Sisters' Hospital, which did not belong to this District, and 66 took

place in the Union Infirmary, 21 of which did not belong to this District, and 3 took place in Prison, 2 of which did not belong to this District.

There were also 2 other Deaths, which though taking place in this District, do not belong to this District, making a total of 37 Deaths of non-residents which have to be deducted.

There were 9 Deaths of residents, which though belonging to this District, were registered outside the District and have therefore to be included.

This gives the total number of Deaths belonging to the District as 215, which, with a population of 18,437, gives a nett Death rate of 11.11 per 1,000 population.

The nett Death rate for the year 1912 was 11.58.

The nett Death rate is not necessarily however a rate strictly comparable to other Districts.

The Death rate in different localities varies considerably, owing to the average age and sex of its inhabitants. If for instance the locality in question is one chiefly frequented by elderly residents who have retired there to spend the latter part of their life, it is natural to expect the Death rate to be high.

Again, if the locality is chiefly inhabited by young children, it is natural to expect the Death rate to be high, for the Death rate amongst infants is higher than at any other period of life.

On the other hand, if the inhabitants of a locality are chiefly young adults, it is natural to expect the Death rate to be low.



The sex of the inhabitants is also a factor to be taken into account, for the average life of a woman is greater than that of a man.

By comparing at the Census of 1911, the composition of the population in each locality with that of England and Wales, Dr. Stevenson, the Superintendent of Statistics, has calculated a factor for correction in each District which, if multiplied by the Crude Death rate gives a Standardised Death rate, that is, the Death rate from all causes which would have occurred if the population of the District had the same proportionate age and sex distribution as the population of England and Wales.

The Standardised Death rate for this District is 10·54.

The Standardised Death rate for the year 1912 was 10·99.

The following table gives the provisional Vital Statistics for England and Wales, etc., for the year 1913, from which it will be seen that though the Birth rate in St. Albans is low, our Death rate compares most favourably with other parts of the country, and especially so our infant Death rate.

	ANNUAL RATES PER 1000 LIVING.			Deaths under One Year to 1000 Births.
	BIRTHS	DEATHS		
		Crude.	Standardised	
England and Wales ... ..	23·9	13·7	13·4	109
96 Great Towns, including London ...	25·1	14·3	14·7	116
145 Smaller Towns .. ...	23·9	12·8	13·0	112
England and Wales, <i>less</i> 241 Towns ...	22·2	13·1	12·1	96
London ... ..	24·8	14·2	14·2	104
<b>St. Albans City ... ..</b>	<b>19·09</b>	<b>11·11</b>	<b>10·54</b>	<b>56·81</b>

**Infant Deaths.**—There were 21 Deaths registered of Infants under one year of age, one of which did not belong to the District, and must therefore be deducted.

The total number of Deaths therefore of children under one year of age belonging to the District is 20.

This gives a Death rate for the year of 56·81 per 1,000 nett Births.

It is satisfactory to note that this Death rate has fallen during the last three years. In the year 1911 it was as high as 98·21, in 1912 it was 80·22, and this year it has fallen as already stated to 56·81.

The excess of Births over Deaths during the year is 137.

**Zymotic Deaths.**—There were 11 Deaths from the 7 principal Zymotic Diseases as shewn in the following table:—

Small-pox	...	...	...	...	0
Measles	...	...	...	...	6
Scarlet Fever	...	...	...	...	0
Diphtheria and Croup	...	...	...	...	0
Whooping Cough	...	...	...	...	3
Enteric Fever	...	...	...	...	0
Epidemic Diarrhœa	...	...	...	...	2

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The following Table shewing the Vital Statistics for the ten years, 1901-1911, has been supplied to me by Dr. Fremantle, Medical Officer of Health for the County.

1901—1911.

DISTRICT.	Mean Pop-ulation.	Births.		Deaths.		Infants—Deaths Per 1000 Births.		Epidemic Deaths.		Diarrhoea Deaths.		Phthisis Deaths.		Cancer Deaths.	
		No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.
Baldock ...	2074	498	24.008	322	15.523	55	110.4	19	0.915	8	0.385	21	1.012	26	1.253
Barnet ...	9330	2171	23.270	1028	11.018	216	99.5	59	0.632	27	0.289	78	0.836	68	0.728
Berkhampstead	6805	1123	16.502	690	10.139	104	92.6	36	0.529	12	0.176	54	0.793	39	0.573
B. Stortford	7972	1719	21.562	1001	12.556	157	91.3	50	0.627	14	0.175	65	0.815	88	1.103
Bushey ...	5691	1097	19.272	554	9.730	88	80.2	24	0.414	5	0.086	34	0.591	51	0.887
Cheshunt	12602	3358	26.647	1465	11.625	304	90.5	119	0.944	51	0.404	79	0.626	108	0.857
E. Barnet Valley	11161	2492	22.328	1143	10.241	211	84.7	79	0.707	22	0.197	73	0.654	86	0.770
Harpندن	5400	1031	19.091	545	10.092	83	80.5	32	0.592	11	0.203	42	0.777	47	0.870
H. Hempstead ...	12021	2947	24.514	1589	13.218	264	89.6	62	0.515	14	0.116	122	1.014	129	1.073
Hertford	9817	2245	22.867	1387	14.128	234	104.2	79	0.804	28	0.285	91	0.926	123	1.252
Hitchin ...	10927	2560	23.428	1435	13.132	261	101.9	81	0.741	29	0.265	87	0.796	98	0.896
Hoddesdon	4937	1159	23.474	602	12.193	112	96.7	33	0.668	13	0.263	46	0.931	52	1.053
Rickmansworth	5935	1583	26.671	680	11.456	140	88.4	49	0.825	10	0.168	56	0.943	38	0.640
Royston ...	3735	788	21.096	457	12.234	60	76.1	19	0.508	5	0.133	33	0.883	58	1.552
St. Albans	17004	3609	21.224	2010	11.820	282	78.1	114	0.670	47	0.276	164	0.964	195	1.147
Sawbridgeworth	2187	527	24.095	268	12.253	48	91.1	11	0.502	1	0.045	18	0.823	32	1.463
Stevenage	4376	1153	26.346	532	12.156	89	77.2	15	0.342	2	0.045	38	0.868	53	1.211
Tring ...	4411	914	20.722	577	13.082	78	85.3	37	0.838	14	0.317	25	0.566	50	1.133
Ware ...	5699	1596	28.007	820	14.389	170	106.5	59	1.035	28	0.491	65	1.140	56	0.982
Watford	34804	9136	26.249	3769	10.829	800	87.6	391	1.123	131	0.376	288	0.827	246	0.706
Urban Totals ...	176888	41706	23.577	20874	11.800	3756	90.1	1368	0.773	472	0.266	1479	0.836	1643	0.928
Rural Totals ...	176888	41706	23.577	20874	11.800	3756	90.1	1368	0.773	472	0.266	1479	0.836	1643	0.928
County ...	101174	22863	22.597	12064	11.924	1903	83.3	689	0.681	235	0.232	790	0.780	948	0.937
	278062	64569	22.808	32938	11.635	5659	87.6	2057	0.726	707	0.249	2269	0.801	2591	0.915

## Infectious Diseases.

Under the Infectious Diseases Notification Act, 51 cases of Infectious Diseases were notified as follows :—

11 Scarlet Fever (9 of which were removed to the Sisters' Hospital).

8 Diphtheria (4 of which were removed to the Sisters' Hospital).

8 Erysipelas.

1 Puerperal Fever.

23 Chicken Pox.

There were no cases of Small-pox, Enteric Fever or Poliomyelitis.

**Table of Infectious Diseases during 1913,  
showing month of incidence.**

DISEASE.	January.	February.	March.	April.	May.	June.	July.	August,	September	October.	November.	December.	Totals.
Scarlet Fever ...	1	..	..	..	2	..	..	..	2	..	1	5	11
Diphtheria ...	3	..	..	1	..	..	..	..	..	1	2	1	8
Erysipelas ...	..	..	..	..	..	1	..	1	2	1	3	..	8
Enteric Fever ...	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever..	..	..	..	..	1	..	..	..	..	..	..	..	1
Poliomyelitis ...	..	..	..	..	..	..	..	..	..	..	..	..	..
Chicken Pox ...	..	..	2	..	6	3	9	1	..	1	..	1	23
Totals ...	4	..	2	1	9	4	9	2	4	3	6	7	51

## Tuberculosis.

This disease, which as a disease was described by Hippocrates as early as the year 300 B.C. as suppuration of the Lung, and which is now responsible for no less than 60,000 deaths in England and Wales annually, has of late years received considerable attention.

The Royal Commission on Tuberculosis presented reports in May, 1904, January, 1907, and their final report in June, 1911, and the Local Government Board has issued no less than four different Regulations which have come into force during a period of four years. But before coming to these I should like to point out a few facts concerning this disease which though perhaps somewhat technical are nevertheless of public interest.

Since the year 1865 Tuberculosis has been recognised as a disease due to a specific infecting agent.

In the year 1888 Professor Koch demonstrated that the infecting agent was the Bacillus Tuberculosis.

There are three main types of Tubercle Bacillus :—

1. The Human.
2. The Bovine.
3. The Avian.

The Human Tubercle Bacillus is the chief cause of Tuberculosis in the human subject, and is practically never found in cattle or fowls, though it is occasionally found in pigs.

The Bovine Tubercle Bacillus is practically the only bacillus found in cattle, but it also affects almost any animal, including man.

The Avian Tubercle Bacillus, though very occasionally found in the rabbit and mouse, practically only affects birds. It has never been found in man.

And though there are Tubercle Bacilli with special characteristics which distinguish them from any of these three principal types which are found in man, they are rare.

It can therefore be said that there are two main types of Tubercle Bacilli which affect the human subject, namely the Human Tubercle Bacillus and the Bovine Tubercle Bacillus.

The *Human Tubercle Bacillus* is conveyed almost entirely through the breath and spit of tuberculous patients. The bacilli become dried and mixed with dust, and are then air borne or are carried by flies into milk and other food, or are conveyed by dirty hands either directly to the mouth or into food.

Children are often infected by dirty hands. Tubercle bacilli have actually been found in the dirt under the nails of school children. What is more likely than that babies, who naturally crawl about, should become infected by the floor of a dirty room.

It may be possible, though it certainly is rare, for man to be infected with Human Tubercle Bacillus through consuming animal food.

The *Bovine Tubercle Bacillus* is conveyed through tuberculous meat or tuberculous milk, and it is here important to emphasise the fact that Bovine Tubercle Bacilli are not only present in the milk of cows who suffer from tuberculous disease of the udder, but may be present in the milk of tuberculous cows presenting no evidence of disease of the udder, even when examined after death. And too, the milk of a tuberculous cow not containing tubercle bacilli as it leaves the udder, may and frequently does become infected by being contaminated with the fæces and discharge of such diseased animals.

Practically all pulmonary tuberculosis in the human subject is caused by the Human Tubercle Bacillus.

By far the greater bulk of tuberculosis in the human subject, in whatever part it may occur, is caused by the human type of Tubercle Bacillus.

If primary abdominal tuberculosis were excluded, probably 90 to 95 per cent. of all cases of human tuberculosis is due to the human type of tubercle bacillus, and most of the tuberculosis found in the human subject, which is due to the Bovine Tubercle bacillus, is found in children.

The two chief modes of infection, that is routes by which the bacillus can enter the body, are :—

1. Inhalation.
2. Ingestion.

The relative importance of these two methods of entry has been much debated, but most authorities agree that inhalation is by far the most important of the two.

As I have stated before, by far the greater bulk of tuberculosis in man, whether it be in the lung or in other parts of the body, is due to the Human Tubercle Bacillus, and the principle or almost exclusive source of pulmonary tuberculosis, is the inhalation of bacilli from sputum which has dried and become mixed with dust and is then air borne.

One word with reference to the congenital origin of tuberculosis. Though it cannot be denied that a mother may transmit this disease to her child, it is admittedly very rare. But what a parent, that is either father or mother, may and frequently does transmit to their offspring is the predisposition, that is the child has a low resisting power, and when exposed to infection easily falls a prey to the disease.

Much can be done in preventing the spread of Consumption by educating the patient as to the nature of the disease and the importance of care in many details.

The spit, which is highly infectious, should always be expectorated either into a suitable vessel which can be effec-

tively disinfected, or into some material which can be burnt, and when burnt it is important that it should be burnt in a live fire, and not thrown at the back of the grate where it can become dried. For in this way the germs are not destroyed but only dried and become mixed with the air, and are another source of infection.

To spit promiscuously on the floor or in the road is not only a disgusting habit but in the case of consumptives most highly dangerous to the public at large. For in this way the infection may be carried by flies, or, as I have said before, dried and carried in the air either to be directly inhaled or to settle on the food.

It is very important that when coughing a Consumptive patient should place his hand or handkerchief in front of his mouth, for by so doing the spread of infection can be considerably diminished.

A patient suffering from Pulmonary Tuberculosis should always occupy a separate bedroom. This is highly important and should always be insisted upon.

Under the heading of Preventive Measures I would unhesitatingly place first and foremost fresh air and sunshine, and next in importance good living.

Fresh air and sunshine, partly because in its presence the vitality and general health of the individual is enhanced, and partly because in its presence the bacilli are unable to thrive.

Some discussion has lately taken place in this Council as to the desirability of three-quarter ceilings. What to my mind is of far greater importance is that the windows should reach as reasonable close as possible to the top of the ceiling, so that there may be efficient ventilation, and that the window space should be sufficient to allow direct light rays to reach practically every part of the room.



Our Bye-laws make no mention as to the height of the window, and allow as a minimum a window space of one tenth of the floor space, which I venture to suggest is not sufficient.

Bedrooms especially should be well ventilated, and not overcrowded, and not filled up with too many hangings.

Besides fresh air and general sanitary surroundings good food is essential.

Consumption is essentially a disease of the poor. I do not mean that the disease is confined to the poor, but that the lower the social scale the higher is the mortality from Tuberculosis, as is shewn well in the following table giving the death rate per thousand :—

Professional and independent class	...	1·15
Middle class	... ..	2·35
Artisan and small shopkeepers	...	3·4
General service class, including servants, hawkers, etc.	... ..	3·56

Much can be done in preventing the contraction of the disease by paying attention to the general hygiene of the child. It is important that the mouth is kept in a healthy state. Decayed and unhealthy teeth should be removed, and the tooth brush should be used night and morning. Especially is it important that the mouth should be clean at night time, and that a child should not be allowed biscuits and sweets after it has gone to bed, unless the teeth are thoroughly brushed afterwards.

The condition of the nose and throat should be watched. The presence of adenoids and unhealthy tonsils is a source of danger, for it is frequently the site where tuberculosis germs first make their entry into the body.

On the 1st January, 1909, the Public Health (Tuberculosis) Regulations, 1908, came into force. This provided for the notification of Pulmonary Tuberculosis amongst the inmates of Poor Law Institutions and amongst persons under the care of District Medical Officers.

On the 1st May, 1911, the Public Health (Tuberculosis in Hospitals) Regulations, 1911, came into force. This provided for the further notification of Pulmonary Tuberculosis amongst in-patients and out-patients at Hospitals or similar Institutions.

On the 1st January, 1912, the Public Health (Tuberculosis) Regulations, 1911, came into force. This provided for the notification of all cases of Pulmonary Tuberculosis by all Medical Practitioners.

(During the first month of the year when these three Regulations were in force I received one notification under the Public Health (Tuberculosis) Regulations 1911.)

On the 1st February, 1913, the Public Health (Tuberculosis) Regulations, 1912, came into force. This revokes all the previous regulations, and makes compulsory the notification of all cases of Tuberculosis whether pulmonary or non-pulmonary, by every Medical Practitioner, whether occurring in an Institution or otherwise. (Except that patients notified under previous regulations are not to be notified again.)

This is the first regulation to provide for the notification of Tuberculosis occurring in patients in Asylums.

Under these regulations four forms of Notifications are supplied :—

Form A. To be used for all primary Notifications, whether notified by a general practitioner or a Medical Officer of an Institution.

Form B. To be used by School Medical Inspectors.

Form C. To be used by a Medical Officer of a Sanatorium or Poor Law Institution for all cases admitted into an Institution which he believes to have been previously notified.

Form D. To be used by the Medical Officer of a Sanatorium or Poor Law Institution for all cases leaving an Institution.

Under these regulations I have received in all 70 Notifications :—

54 on Form A. (34 of which were pulmonary and 20 non-pulmonary.)

1 on Form B. (a pulmonary case.)

10 on Form C. (8 of which were pulmonary and 2 non-pulmonary.)

5 on Form D. (4 of which were pulmonary and 1 non-pulmonary.)

It might reasonably be imagined that the number of cases notified on Form A would be an accurate estimate of the number of new cases of Tuberculosis which have occurred in the District during the year, but this is not so. For, as a matter of fact, notifications received on Form A include a good many duplicate notifications. Some by a general practitioner, who, had he known that the case had been notified before, should not have notified it at all, and some by a Medical

Officer of an Institution who, had he known that the case had been previously notified, should have used Form C. Some cases again which are new cases, inasmuch as they have not been notified in this district before, are notified on Form C because the Medical Officer of the Institution believes them to have been previously notified.

Again, the total number of cases notified throughout the county, or for that matter the country on Form A, is not an accurate estimate of the number of new cases in the county or country. For there is no means of checking whether the notification of a case received on Form A has or has not been previously notified in another district.

Again, Form C is not a complete list of cases entering Institutions, because if the Medical Officer believes the case has not been notified before he notifies it on Form A.

Until a central office or bureau is established, where all Tuberculosis notifications from all over the country are received and classified, it will be impossible to get any statistics which are accurate or of any material value.

In this district during the year 56 cases have been notified for the first time :—

38 of these were cases of pulmonary Tuberculosis.

18 of these were cases of non-pulmonary Tuberculosis.

Of the 38 pulmonary cases 20 were males and 18 were females. Of the 18 non-pulmonary cases 8 were males and 10 were females.

The following table shows the location of the disease and the age and sex of the cases :—

	0 to 1		1 to 5		5 to 15		15 to 25		25 to 35		35 to 45		45 to 55		55 to 65		65 and upwards		Totals.		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Pulmonary...	...	...	...	...	3	1	3	4	3	6	4	3	6	4	1	...	...	...	20	18	
Joints ...	...	...	1	...	3	1	...	...	...	...	...	...	...	...	...	...	...	...	4	1	
Cervical Glands	...	...	...	3	2	...	...	1	...	...	...	...	...	...	...	...	...	...	2	4	
Abdominal Glands	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	
Peritoneum..	...	...	...	...	1	...	...	...	2	...	...	...	...	...	...	...	...	...	1	2	
Ear ...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	2	
Eyes	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	
Totals ...	...	...	2	3	9	2	3	6	3	10	4	3	6	4	1	...	...	...	29	28	
																					56

I have looked very carefully into the occupations of all cases notified, but I do not find that the information obtained is of much value ; still, I will give it for what it is worth.

Of the 38 pulmonary cases, 4 were children, that is, under 15 years of age. Fifteen follow no trade ; this includes housewives and a few whose occupation I was unable to obtain, chiefly due to the fact that Form C does not require the occupation to be stated. Two were patients in an Asylum and the remaining 17 followed various occupations as follows:—domestic servants 3, straw hat work 3, bootmakers 2, laundry 2, basket maker, labourer, motor mechanic, dye worker, brick-layer, railway porter, and clerk, of each 1.

Of the 18 non-pulmonary cases, 12 were children, 4 have no occupation, one was a straw hat worker, and one a tailor.

The Tuberculosis Regulations, 1912, require that a Register of notified cases should be kept by the Medical Officer of

Health, and that such Register should be private and only inspected by specially authorised persons, and that a weekly statement of notified cases should be sent to the County Medical Officer of Health. These duties are faithfully carried out.

As pointed out by the circular of the Local Government Board, dated 20th December, 1912, it is essential that there should be close co-operation between the Medical Officer of Health and the Tuberculosis Officer of the Dispensary which serves the district of the Sanitary Authority.

Dr. Hyslop Thomson, the Tuberculosis Officer appointed by the County Council, who through the County Medical Officer of Health receives a weekly statement of notified cases, has now organised his scheme which is working well, and is, I hope, within sight of completion.

Dr. Hyslop Thomson has prepared a list of questions chiefly with reference to general sanitary conditions, such as number of living rooms, suitability of bedroom accommodation, ventilation, and lighting. Is there a garden? Is there room for a shelter? And other questions for information which he wishes to obtain.

This information I obtain for him. Sometimes through the doctor in attendance, and always in some way which I consider is giving as little inconvenience as possible to those concerned.

Sanitary defects when found are dealt with.

The treatment of the patient then falls under one of the 4 following heads:—

1. Home treatment.
2. Dispensary treatment.
3. Hospital treatment.
4. Sanatorium treatment.

And whatever line of treatment is decided upon, Dr. Hyslop Thomson is only too willing to give what advice or assistance he can, in conjunction with the doctor in attendance.

If it is desired any contacts or suspicious cases will be examined by him, and in this way it is hoped, and this is extremely important, that early cases will be detected. And here it should be stated that in all suitable cases arrangements are made for the sputum to be bacteriologically examined at the expense of the County Council.

**Home Treatment.** Besides general advice which Dr. Hyslop Thomson is always prepared to give in conjunction with the doctor attending, leaflets, "directions for those suffering from Tuberculosis," sputum flasks, temperature charts, and thermometers are provided, and open air shelters in suitable cases, and where required tuberculin is available free of charge.

**Dispensary Treatment.** This treatment is frequently carried on in conjunction with home treatment. A temporary Dispensary has been established in St. Albans for some months, and now a house has been taken as a permanent Dispensary, which Dr. Hyslop Thomson attends personally at least once a week, namely Friday afternoons. Here he sees patients sent to him, either for treatment or diagnosis, and tuberculin treatment is given.

He is assisted in his work by Nurse Evans, the Tuberculosis Nurse appointed by the County Council.

**Hospital Treatment.** Arrangements have been made with the Management Committee of the St. Albans and Mid Herts Hospital for the treatment of surgical and non-pulmonary cases. A fee of 25/- per week is paid for this purpose by the Insurance Committee in the case of insured persons, and by the County Council in the case of uninsured persons in all suitable cases.

It should be borne in mind that under the Insurance Act provision is made by the County Council for the treatment of all patients, whether insured or uninsured, at Dispensaries, Hospitals and Sanatoriums.

**Sanatorium Treatment.** The County Council and Insurance Committee have made provisional arrangements for Sanatorium treatment in the case of insured and uninsured persons in existing Institutions.

It is only in the early stages of the disease that Sanatorium treatment is recommended.

The permanent scheme of the County Council includes the erection of a County Sanatorium, which will provide accommodation for 60 Sanatorium beds and 40 Hospital beds.

The Institutions to which patients at present are being sent are in various parts of the country, and as in some cases the distance is considerable, the County Council and the Insurance Committee pay the expenses of patients to and from these Institutions.

An effort is made to follow up patients when discharged from a Sanatorium, and in the case of patients who are not able to return to work, treatment is continued at home or at a dispensary.

*Care Treatment.* By care treatment is understood the lay assistance which can be given to patients in the following ways :—

1. The provision of milk or other nourishment and clothing in necessitous cases.



2. A general interest in the welfare of the patients and of those dependent on them.
3. Assistance to obtain suitable employment or part time employment for patients.
4. Assistance to obtain appliances in cases of non-pulmonary tuberculosis.
5. Assistance to get dental treatment.

The Insurance Committee provides milk in cases which it is thought necessary for insured persons, but has no powers to assist in this way the uninsured.

Care treatment can only be conducted by voluntary agencies. The St. Albans and District Insurance Committee have arranged to undertake the question of care treatment in St. Albans.

In all cases where necessary disinfection is carried out by this Council.

Bedding is removed to the steam disinfector at the Sisters' Hospital and there disinfected.

Rooms are disinfected with Formalin and instructions given that they should be thoroughly cleansed with soap and water and allowed plenty of fresh air and sunlight.

### **Preventive Measures.**

The Sisters' Hospital with an accommodation of 30 beds, has provided ample accommodation for all the Scarlet Fever cases.

The Diphtheria Hospital, with an accommodation of 12

beds, has provided ample accommodation for all the Diphtheria cases.

These two Hospitals are under the charge of Miss Kimberley, whose duties, which are at all times responsible, and at times not unattended by a certain element of personal risk, are always carried out with conspicuous skill and care.

The patients who are removed to the Hospital are chiefly children, but whatever their age they are always made happy and comfortable, and it has been my pleasure on several occasions to hear afterwards, either from the patients or their parents, how much they have appreciated the kind attention they have received.

The Diphtheria patients are generally discharged from the Hospital at the end of a month, reliance as to their freedom from infection being taken chiefly on clinical observation, but one negative swab is always obtained. This method has so far been justified by results, as no return cases have occurred.

The Small-pox Hospital at Cherry Tree Farm, with an accommodation of 12 beds, which is in charge of a caretaker and his wife, who keep it in such a state as to be ready for a patient at the shortest notice, has not been required during the year.

These 3 Hospitals we share with the authorities of St. Albans Rural District and Harpenden Urban District.

During the year 63 cases of Scarlet Fever were admitted to the Sisters' Hospital, 9 of which belonged to the City, 34 to the Rural District and 20 to Harpenden. Seven cases of Diphtheria were removed to the Diphtheria Hospital, 4 of which belonged to the City, 2 to the Rural District, and 1 to Harpenden.

At the Sisters' Hospital is a Thresh's Steam Disinfector where bedding and clothes may be disinfected. This is practically always done in cases of Scarlet Fever, Small-pox, etc., and frequently done after such illnesses as Consumption and Cancer. Formaldehyde is the disinfectant almost universally used in this district, but in addition every room is thoroughly cleansed with soap, water, and fresh air, and where necessary, whitewashed and papered.

Arrangements are made by this Council with the Clinical Research Association, for examinations to be made at the expense of this Council.

I have received during the year 24 reports from them as follows:—

Twenty on Swabs examined for Klebs Loeffler Bacilli for Diphtheria (8 of which were positive and 12 negative).

One on Widals' Blood Test for Typhoid Fever, which was negative.

Three on Sputum examined for Tubercle Bacilli (1 of which were positive and 2 negative).

Diphtheria anti-toxin is in all suitable cases supplied at the expense of this Council.

### **Vaccination.**

It is for obvious reasons impossible at this date to give any accurate Vaccination returns for the year ending December, 1913.

The following figures therefore are given for the 12 months ending June 30th, 1913, and have been supplied to me by Mr. Rogers, the Vaccination Officer:—

During this period there were 378 children born in the City, 15 of which died in infancy without being vaccinated. Of the remaining 363, only 75 have been vaccinated.

11 have gone away from the District before being vaccinated.

22, though having no Exemption Certificate, are reported as unvaccinated, and

255 Conscientious Objection Certificates were granted.

### **Public Elementary Schools.**

There are 10 Public Elementary Schools in the City, of which 5 are Church of England Schools, 1 is a Roman Catholic School, and 4 are County Council Schools.

All these Schools receive their water supply from the St. Albans Waterworks Company's mains.

In my Report to the School Medical Officer, besides several minor points where I consider improvement might be effected with regard to heating, ventilation and lighting, I called his special attention to the following more important defects:—

The cloakroom accommodation at the Abbey School in the Girls' and Infants' Departments is bad, and the latter is very badly ventilated.

The wash basins are very inadequate at Christ Church School, at the Abbey School in the Boys', Girls', and Infants' Departments, and at St. Michael's School in the Mixed and Infants' Departments.

The lavatory arrangements are bad, and in my opinion require immediate attention at the Abbey Boys' School and Christ Church School.

The efficient cleaning of the Schools is a matter, the importance of which is not sufficiently recognised. If more attention was paid to this, and means adopted whereby the dust is kept down, I am convinced it would be of benefit to the health of the children.

I have made a particular point of ascertaining the method of cleaning adopted in each School.

Every School is brushed out daily, and in all but a few instances the work of the caretaker is reported as efficiently done.

The number of times that the School is thoroughly cleaned throughout, that is floor scrubbed, walls brushed and desks cleaned, varies, but generally speaking this is done each holiday (three times a year).

In addition to this general cleaning, in the majority of Schools, little else is done.

In some of the Schools the floors are scrubbed a few times extra, but in few Schools is the scrubbing in my opinion done sufficiently often. The ideal would be to have the floors scrubbed once a week, but this I think is more than one can

reasonably expect, but I do not consider that any schoolroom floor should be scrubbed out less frequently than once a month, and once a fortnight would be better. The desks also should receive the same attention as the floors.

Many of the school teachers object to have the floors scrubbed except in the holidays, as they say they do not get sufficiently dry and "it is dangerous for the children." They do not seem to realise the risks the children run from inhaling dust from a floor, not only soiled with road dirt, but which must be saturated with germs from the breath of the children, especially so when coughs and colds are prevalent.

All the Schools are supplied with some disinfectant which is reported in 2 Schools to be used daily, and in most of the other Schools once a week. Whether this is used in a manner to be of any practical value is very questionable.

It would be an advantage if some uniform method of cleaning was adopted in all the Schools, and if the caretakers were instructed to regularly disinfect the floors, desks and cloakrooms. The floors should be thoroughly wetted with a suitable disinfectant (and for the purpose I do not think anything is better than 1 in 400 solution of Cyllin) before sweeping commences, and the desks and walls should be sprayed with a similar solution at regular intervals.

At those times when coughs, colds and sore throats are prevalent, it would be of enormous benefit if the Schoolroom floors could be made just damp, so that the dust which is always raised by the children coming into School, were by this means prevented from rising.

Since writing the above my attention has been drawn to a preparation called "Dusmo," which is apparently a mixture of

fine sand and wood dust impregnated with antiseptics. If what is claimed for this preparation is correct and it is applicable to the floors of Schoolrooms, I should modify the suggestions I have made above.

The following Schools were closed during the year :—

St. Michael's Infants, on the 23rd January, for  $3\frac{1}{2}$  weeks, for Measles and general illness.

St. Michael's Infants, on the 17th September, for 1 week, for Measles.

Garden Fields Infants, on the 17th March, for 3 days, for Measles.

Roman Catholic, on the 16th July to 31st July, for Whooping Cough.

Bernard Street Infants, on the 22nd November, for 2 weeks, for Whooping Cough and general illness.

## General Sanitation.

**Water Supply.**—The City receives its water supply from the St. Albans Water Company. This Company has 2 pumping stations :—

1. The Stone Cross Pumping Station, the original one at the top of St. Peter's Street, where they have 2 wells, 196 feet and 204 feet deep respectively, both going into the chalk with headings driven out to a length of about 800 feet. The pumping capacity at this station is 40,000 to 60,000 gallons per hour. This pumping station is now only used occasionally.

2. The Holywell Pumping Station, where there are 3 wells, 160 feet deep, going into the chalk, lined with steel tubes to a depth of 55 feet. The pumping capacity of the 3 pumping engines at these works is respectively 80,000, 40,000 and 25,000 gallons per hour.

There would be no difficulty in supplying one and a half million gallons per day, and by carrying out the additional works which are authorised by the Company's Act, the yield of water could be increased very largely.

Observations are made weekly of the temperature of the water in the river and the wells. While the temperature of the river water varies 30 deg., that in the wells remains constant throughout the year at 50·5 deg. F., shewing that the water always comes from the lower chalk.

The water has been pronounced on analysis and bacteriologically perfectly satisfactory. The hardness is 21·0 deg. of which 19·25 is temporary.

From time to time this Council or the St. Albans Waterworks Company have been approached with a view of getting some means adopted of softening the water.

For industrial and domestic use soft water is undoubtedly an advantage, but beyond this there is no advantage, and it is not so palatable as hard water.

A large number of different diseases have been attributed to the influence of chalky drinking water, but it does not necessarily follow that opinions held by the public, even if they are ever so widely maintained, are correct, and there certainly is no proof that hard water is the cause of any of them.



The most commonly mistaken notion on the part of the public is that the so-called chalk stones of Gout are composed of chalk, and due to the drinking of hard water, whereas in reality they are composed of urate of soda, to which chalk has no relation.

For growing children hard water is said to be far preferable to soft, and certainly St. Albans is a particularly healthy resort for all children.

Again it must be remembered that there is a large population living on chalky water, and if there were any very decided ill effects on their health the facts would be notorious.

**Sewerage.**—With a few exceptions all the houses in St. Albans are connected with the main sewer.

The branch sewers are from 15 inch to 9 inch glazed stoneware pipes laid with Stanford's patent water-tight joints, having manholes at every change of line or gradient, with surface ventilation at the ground levels. Flushing chambers have been constructed at all dead ends of sewers with penstocks fixed therein. The whole of these sewers are hand-flushed twice weekly with clean water by means of hydrants fixed on the water mains opposite the flushing chamber, a standpipe and short length of hose being used for this purpose.

Since the sewers were completed, in consequence of the complaints caused from the open ground ventilators, the Council have had a certain number of these closed and ventilating shafts varying from 25 to 30 feet in height substituted.

The main outfall is a 21 inch glazed stoneware pipe sewer with Stanford's patent water-tight joints, laid at a gradient of

1 in 1760, and with manholes and flushing chambers at such intervals that will allow of the whole sewer being flushed out periodically by hand. This is done once a week.

The Sewage Farm is 30 acres in extent.  $3\frac{3}{4}$  acres of this is occupied by the works,  $6\frac{1}{4}$  acres is used for dealing with the sludge, and the remaining 20 acres are reserved for treating the effluent.

The Sewage Works were reconstructed under the supervision of Mr. H. Howard Humphreys, Consulting Engineer, of Westminster, the work being completed in August, 1909.

The average dry weather flow of sewage into the farm is 500,000 gallons per day, that is about 25 gallons per head. This includes the storm water from the roofs of houses and back-yards, but not the storm water from the roads, for which there is a separate system which takes it directly to the river Ver. The sewage is delivered to the farm through a main sewer 21 inches in diameter, and on arriving at the works passes through a coarse screen and from thence to a sedimentation tank 17 feet deep, with a capacity of 21,000 gallons. On the bottom of this tank is a helical scraper for the removal of sludge. About 5,000 gallons of sludge are dealt with daily, which is forced by compressed air to the sludge area, where it is dealt with in shallow trenches. The trenches are three parts filled with sludge and then filled with soil which absorbs the liquid and prevents any nuisance arising from it.

The effluent from the first sedimentation tank passes through two other sedimentation tanks which have a total capacity of 186,000 gallons. From these tanks it is then treated in ten coarse contact beds with a total capacity of 6,100 cubic yards. These beds are drained to a well under the engine-house floor

from whence the effluent is pumped through a 12 inch cast iron rising main to the percolating filters 8 in number with a total capacity of 6,908 cubic yards, over which it is distributed by Fiddian distributors. The effluent from these filters is passed through a humus tank and finally dealt with on land.

There are four storm water filters which come into operation after heavy storms.

The Sewage Disposal Works are under the care of Mr. Eade, a most capable manager, who not only always keeps the farm the perfection of tidiness, but has proved himself to be a thorough master of every detail in sewage disposal.

No complaints from the Thames Conservancy have been received during the year.

**Ashes and Refuse.**—In the central part of the city there is a daily collection of shop refuse, and in all parts of the city there is a weekly collection of ashes and refuse, which is taken to the destructor provided by the North Metropolitan Electric Supply Company, and there satisfactorily dealt with.

This Council has been approached from time to time as to the desirability of a more frequent collection of ashes and refuse. A second collection in the week would very considerably increase the cost of collection, and provided that proper ashbins of sufficient size are provided at each house, I do not consider it necessary for this Council to put this extra cost on the rates.

Possibly during the summer months in some parts of the town a second collection might be desirable, and if in my

opinion this becomes desirable I will report the matter to this Council.

A new contract was entered into by this Council early in the year for the collection of refuse, which I am pleased to report is efficiently and most satisfactorily done.

The carts used for conveying the refuse are always covered, and no complaints have been received of any nuisance arising from their passing through the streets.

The Sanitary Inspector pays special attention to all back yards and premises attached to the poorer parts of the town during the summer months, and all collections of refuse are immediately removed.

### **Factories and Workshops.**

The Factory and Workshops Acts, 1901, which came into force on 1st January, 1902, imposes on every Sanitary Authority the duty of keeping a register of Workshops. Such register has been kept and is up to date. List of Home-workers have been received twice during the year and these lists are preserved. No case of a notifiable disease occurred in the home of an outworker during the year.

There are 61 Factories, 129 Workshops, and 27 Work-places in the City. These have all been visited during the year. The following table shows the number and nature of employment in Factories and Workshops in the City :—

Trade.	Factories.	Work-shops.	Work-places.	Total.
Straw Goods ... ..	10	0	1	11
Engineers ... ..	6	0	0	6
Printers ... ..	8	0	0	8
Carpenters... ..	2	10	0	12
Brewers ... ..	2	0	0	2
Builders ... ..	3	5	0	8
Flour Mills ... ..	2	0	0	2
Laundries ... ..	2	11	0	13
Bakers ... ..	1	23	0	24
Cycle Works ... ..	5	6	0	11
Boot Makers ... ..	2	7	0	9
Brush Makers ... ..	1	0	0	1
Gas Works ... ..	1	0	0	1
Water Works ... ..	2	0	0	2
Silk Works ... ..	1	0	0	1
Electric Works ... ..	1	0	0	1
Mineral Waters ... ..	1	0	0	1
Wire Works ... ..	1	0	0	1
Bleach Works ... ..	2	0	0	2
Saw Mills ... ..	2	0	0	2
Hatters' Stitchers, Printers ...	1	0	0	1
Hat Makers ... ..	1	0	0	1
Plumbers, Decorators ... ..	0	8	0	8
Milliners, Dressmakers ... ..	0	22	0	22
Blacksmiths ... ..	0	6	0	6
Tailors ... ..	2	11	0	13
Watch and Clock Repairers ...	0	6	0	6
Saddlers ... ..	0	3	0	3
Restaurants ... ..	0	0	4	4
Monumental Masonry ... ..	0	2	0	2
Cardboard Box Makers ... ..	2	1	0	3
Seed Packers ... ..	0	0	2	2
Stabling ... ..	0	0	18	18
Corset Makers ... ..	0	1	0	1
Basket Makers ... ..	0	1	0	1
Photographers ... ..	0	3	0	3
Stained Glass Works ... ..	0	1	0	1
Pipe-clay Maker ... ..	0	1	0	1
Billposting ... ..	0	0	1	1
Builders' Stores ... ..	0	0	1	1
Leather Preservative Composition	0	1	0	1
	<u>61</u>	<u>129</u>	<u>27</u>	<u>217</u>

P.S.—Under the heading of "Carpenters" are included Cabinet Makers, Upholsterers, Undertakers, Wheelwrights and Coachbuilders.

There is no overcrowding in any Workshop or Workplace in the City. All Workshops and Workplaces are well ventilated and kept in a clean and sanitary state.

Every Factory and Workshop has suitable sanitary conveniences with separate convenience for each sex.

Verbal notice of defects were given by the Sanitary Inspector on six occasions, and these were all immediately remedied.

There are 14 Factories and 1 Workplace which employ more than 40 persons.

Thirteen lists were received during the first half-year, including 325 outworkers doing straw hat work, 30 doing brush work, and 1 in the boot trade.

Thirteen lists were received during the second half-year, including 264 outworkers doing straw hat work, 33 doing brush work, 2 doing tailor's work, and 1 in the boot trade.

### **Bakehouses.**

There are no wholesale Bakehouses in the City. Under the Factories and Workshops Act, 1901, no underground Bakehouse must be used after 1st January, 1904, without the written permission of the Sanitary Authority. There are 5 such underground Bakehouses in the City, all of which have received the necessary permission of this Council.

There are 25 Bakehouses in the City, one of which is a Factory. One of these has been closed all through the year. All are clean, in good condition, and well kept.

All are limewashed at least once in every 6 months.

## Slaughter Houses.

There are 10 registered slaughter houses in the City. Their situation and the names of the occupiers is given in the following table, as is also the approximate number of animals slaughtered in each during the year. I have visited all of them during the year, and the Sanitary Inspector visits them frequently. All are kept clean and in good order and properly drained. All are owned and used by local butchers, and all claimed to be prae 1875.

### Approximate Number of Animals Slaughtered in Slaughter Houses in 1913.

Occupier.	Situation.	Bullocks.	Calves.	Sheep.	Pigs.	Totals.
Morris ...	...Bedford Road ...	...	...	...	364	364
Oakley ...	...Lattimore Road ...	52	2	285	30	369
Taylor ...	...Lattimore Road ...	15	13	160	...	188
Hibbert	...Albert Street ...	40	20	100	50	210
Deayton	...Holywell Hill ...	...	...	...	79	79
Patience	...Holywell Hill ...	152	40	170	60	422
Patience	.. High Street ...	...	..	100	...	100
Ironmonger	..George Street ...	...	...	...	377	377
Potton ...	...George Street ...	105	6	464	905	1480
Butler ...	...St. Peter's Street...	200	60	1000	150	1410
Totals ...		564	141	2279	2015	4999

In 2 cases the slaughter house, though a slaughter house within the definition of the Public Health Act, 1875, is nothing more than a yard, and a few of them owing to their position are unsuitable for the purpose of slaughtering, but on account of their being in existence previous to the year 1875, this Corporation has no power to deal with them, unless they are a nuisance under the Public Health Act, 1875.

During the year the Market and Stalls have been regularly inspected by the Inspector of Nuisances and frequently by myself. No case of unsound food was detected during the year.

## **Dairies, Cowsheds and Milkshops.**

**Dairies.**—There are 13 dairies in the City, 4 of which are attached to cowsheds. All have been visited during the year, and no defects have been found. All are kept in a clean and satisfactory condition and all have an ample water supply.

**Cowsheds.**—The number of cowsheds on register in the year 1913 is 9. These have all been visited by myself during the year, and at least once in each quarter by the Veterinary Inspector. The approximate number of cows in these sheds is 178.

**Milk Shops.**—There are 31 milk shops in the City. I visited all these on one hot day during the summer months and in all cases found that the milk was stored in suitable vessels and in a suitable place, and all of them were clean and well kept. But in 15 of the milk shops I found the vessel containing the milk was without a suitable cover. It is most important that milk should be suitably covered and protected from dust, and in the summer months more particularly to keep the flies out. Next summer I propose to circularize all the occupiers of the milk shops, drawing their attention to this point.

## **Sale of Food and Drugs Acts.**

During the year 1913 under this Act 69 samples were taken for analysis:—38 of milk, 5 of Epsom salts, 4 of baking powder, 3 each of butter, lard, and Demerara sugar, 2 of olive oil, and 1 each of cheese, ground coffee, castor oil, Gregory powder, tincture of iodine, purified cream of tartar, citrate of iron and quinine, lime water, sweet spirits of nitre, liquorice powder and



paregoric. The Public Analyst reported that 61 of these were genuine and 8 adulterated. Of these 8, 4 were of milk, 2 of Epsom salts, 1 of citrate of iron and quinine, and 1 of sweet spirits of nitre. Legal proceedings were taken against the vendors of the 4 samples of adulterated milk. Fines were inflicted in 3 cases, and the fourth case was dismissed upon the defendant paying the costs.

Three of the remaining 4 samples were informal, and in the other one the deficiency was so slight that the Public Analyst advised that no legal proceedings should be instituted.

### **Milk and Cream Regulations, 1912.**

These Regulations which came into force at the end of last year are designed to secure that no thickening substance shall be added to cream or preserved cream, and that no preservatives shall be added to milk or to cream containing less than 35 per cent. by weight of milk fat.

The regulations allow that to cream containing over 35 per cent of milk fat, boric acid, or borax, or hydrogen peroxide may be added, provided that an adhesive declaratory label is attached to the receptacle containing cream. Such label should be of a certain size printed in black type of not less than a certain size on a white ground, and be placed in an unobscured position on the receptacle.

38 official samples of milk were taken and submitted to the Public Analyst, in none of which was any preservative detected.

Through an oversight no samples of cream have been taken this year.

## Offensive Trades.

This Council has made an application to the Local Government Board under section 51 of the Public Health Act Amendment Act, 1907, to include the following as offensive trades:—

Rag and Bone Merchant.

Fish Frier.

Gut Scraper.

Glue Maker.

Size Maker.

Dealer in Fat, Blood and Offal, and other putrescible animal products.

Blood Drier.

Dealer in Hides and Skins.

There are 3 dealers in rags and bones in St. Albans, and though generally speaking these are fairly well conducted, if certain improvements, such as keeping the bones in suitable receptacles, and proper limewashing of the compartments where the rags are stored, were insisted upon, it would in the interest of the Public Health be an advantage.

There are five fried fish shops in St. Albans, one of which is at present unoccupied. I believe them to be all well conducted. The premises are fairly up-to-date, and the owners all say that nothing but the best cotton seed oil is used, and certainly, since I have been your Medical Officer no complaints of them have been received, still it would be more satisfactory to have these and any future such businesses under control.

The only dealers in hides and skins in St. Albans are dealers in rabbit skins, of which there are certainly 5. This trade is carried on almost exclusively in the winter, and has not to my knowledge ever been a nuisance to anyone in St. Albans.

## Lodging Houses.

There is only one Registered Common Lodging House in the City. It is frequently visited by the Sanitary Inspector who reports it to be well managed and in good order.

## Housing and Town Planning Act.

Under the Housing and Town Planning, etc., Act, 1909, 687 visits have been paid and 221 houses inspected, situated as follows:—

Houses with no Defects.	No. of Houses Inspected.	Position of Houses Inspected.
0	14	College Place, Nos. 2 to 28 [all on the one side and the opposite side to that done in 1912].
2	8	Lower Dagnall Street, Nos. 36 to 46; 50 and 52 [48 was unoccupied].
2	28	New England Street, Nos. 1 to 55, all on one side [2 to 10, 7/6 rental].
0	28	Temperance Street, 1 to 37; 18 to 34 [all].
3	15	Adelaide Street, Nos. 10 to 16; 24 and 26; 32 to 48 [Nos. 28 and 30, serious illness, not inspected].
0	15	Adelaide Street, Nos. 7 and 9; 21 to 25; 33 to 39, and 43 to 53 [No. 3 is 7/6 rental and not included, also there are no dwelling-houses for numbers missing].
10	36	Church Street, Nos. 1 to 27; 35 to 77 [Nos. 29, 31 and 33 rental above 6/2, and not included].

Houses with no Defects.	No. of Houses Inspected.	Position of Houses Inspected.
15	23	Bernard Street, Nos. 4; 16 to 30; 46 to 50; 54 to 60; 66 to 78 [Nos. missing, houses above 6/2 rental].
	27	Bernard Street, Nos. 3 to 49; 55 to 59 [all remaining houses over 6/2 in rental].
8	27	Longmire Road, Nos. 2 to 28 [No. 1 is 6/6 rental and not included, all on other side exceed 6/2 in rental].
<hr/> 40 <hr/>	<hr/> 221 <hr/>	

**Statement required by Article V. of the Housing  
(Inspection of District) Regulations, 1910, in regard to  
the Inspection of Dwelling-houses under Section 17 (1)  
of the Housing, Town Planning, &c., Act, 1909.**

Number of dwelling-houses inspected under and for the purposes of the Section	...	...	...	221
Number of such dwelling-houses which were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation	...			0
Number of dwelling-houses in respect of which representations were made to the local authority with a view to the making of closing orders	...			0
Number of dwelling-houses in respect of which closing orders were made by the local authority	...			0
Number of dwelling-houses the defects in which were remedied without the making of closing orders	...			181
Number of dwelling-houses which after the making of closing orders were made fit for human habitation	...			0
General character of the defects found to exist in the dwelling-house inspected, see following list—				

In explanation of the working of the Act, I should like to point out, that a defect in any house let to a new tenant after the date of the Housing and Town Planning Act, 1909, can be dealt with under Section 15 of the Act, in a manner similar to that under the Public Health Act, 1875. But a defect in a house let to a tenant previous to the passing of the Act, cannot be dealt with under Section 15, and has to be dealt with under Section 17 (sub-section 2), which means that the defect cannot be dealt with under the Act unless the defect is such that it renders the dwelling so dangerous or injurious to health as to be unfit for human habitation.

The following sanitary defects therefore, 605 in number as shewn in the following table, have been dealt with under the Public Health Act, 1875, and 70 informal notices were served.

Houses damp	...	...	...	...	31
Houses overcrowded	...	...	...	...	5
Floors defective	...	...	...	...	18
Ceilings and walls broken	...	...	...	...	23
Sleeping-rooms cleansed	...	...	...	...	43
Living-rooms cleansed	...	...	...	...	18
Staircases cleansed	...	...	...	...	9
Roofs, spoutings and downpipes defective					41
Sleeping-room windows closed	...	...	...	...	118
Sleeping-room windows not hung	...	...	...	...	16
Scullery windows opened	...	...	...	...	3
Windows provided with fasteners, hooks					17
Sash cords broken	...	...	...	...	77
Windows and window sills defective	...	...	...	...	8
Back doors and doors of W.C.'s defective					9
Copper fireplaces defective	...	...	...	...	8
Sinks and waste pipes defective	...	...	...	...	20
Sinks provided where none existed	...	...	...	...	5
Kerbs around gullies defective	...	...	...	...	4
Grating over gully broken	...	...	...	...	1

Water taps removed and placed over sinks	4
Water taps defective ... ..	10
Chimney defective ... ..	1
Treads of inside stairs broken ... ..	2
Yards insufficiently drained ... ..	29
W.C. buildings—dilapidated state of ...	2
W.C.'s and drains defective ... ..	22
Cisterns defective ... ..	28
Cellar flaps broken ... ..	3
Ashpit abolished ... ..	1
Dustbins defective ... ..	29
Total ...	<u>605</u>

## Byelaws and Regulations.

Byelaws drawn up by this Council regulating the employment of children were approved by the Local Government Board, on 11th April, 1913, and are now in force in this City.

## Adoptive Acts.

The following Adoptive Acts are in force in the City :—

The Public Libraries Act.

The Baths and Wash-houses Acts.

The Infectious Diseases Notification Act 1889.

The Public Health Acts Amendment Act 1890 (with the exception of Part 4).

The Infectious Disease (Prevention) Act 1890.

The Public Health Acts Amendment Act 1907, Part II.  
(Streets and Buildings).

Part III., sections 34, 35, 36, 37, 38, 39, 40, 41, 42, 43,  
44, 45, 46, 47, 49, 50, 51 (Sanitary Provisions).

Part IV. (Infectious Diseases).

Part V. (Common Lodging Houses).

Part VI. (Recreation Grounds).

Part VII., sections 79, 81 and 86 (Police).

Part VIII. (Fire Brigade).

Part IX. (Sky Signs).

Part X., sections 92, 93, 95 (Miscellaneous).

The Museums and Gymnasium Act 1891, and the Private Street Works Act 1892, and the Notification of Births Act 1907, have not been adopted.

The following Byelaws and Regulations are in force in the City:—

1. New Streets and Buildings.
2. Nuisances.
3. Slaughter Houses.
4. Dairies, Cowsheds and Milk Shops.
5. Cleansing of Footways and Pavements.
6. Common Lodging Houses.
7. Good Rule and Government.
8. Employment of Children Act 1903.

Appended are the reports of the Sanitary Inspector and Veterinary Inspector.

My thanks are due to the Town Clerk and Mr. Marshall, for the assistance I have received from time to time at their hands. And also to the Sanitary Inspector, Mr. Macara, for his willing co-operation and the help which he is always ready to give me.

I wish also to express my appreciation to you gentlemen, for the very courteous way you have always treated me.

I have the honour to remain, gentlemen,

Your obedient servant,

HENRY E. MAY,

M.A., M.B., B.C. CANTAB.,

*Medical Officer of Health.*

## **Report of the Sanitary Inspector for the City of St. Alban, for the Year 1913.**

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*To the Mayor and Corporation of the City of St. Alban.*

GENTLEMEN,

I beg to present to you my Report of the work carried out in my department during the year 1913.

The Boundaries of the City having been enlarged only seven weeks before the close of the year, I do not include in this Report the work done in the added area of the City, except that relative to the duties performed under the Sale of Food and Drugs Acts.

Throughout the year the usual systematic inspection of the City was made for the detection of nuisances, and wherever found, the necessary steps were immediately taken for their abatement. In all 2725 visits were paid.

House to house inspection received particular attention; 385 houses were inspected. Included in this number are 221 houses visited and inspected under the Housing and Town Planning, etc., Act, 1909.

931 sanitary defects were remedied, particulars of which, and of other work done are shewn in tabulated form on the following pages.

It is satisfactory to record that the whole of this work has been carried out without resource being made even to the serving of a single statutory notice.



In the centre of the City I found a rag and bone and old iron business carried on. The occupier of the premises was served with a notice to cease collecting rags and bones. He complied, but most reluctantly ; and then informed me that he would leave the City.

Some time afterwards I discovered a similar business in premises situated in a different part of the City. The same man was there but he had other men associated with him, and nominally one of these "ran" the business. Notice was served on this man, "his nominee," to desist from carrying on this business, and in a week's time the premises were vacated.

Shortly after this, again I met with the same business firmly established in a wooden building not far distant from the one just recently left. The same men were there, and before I could get them to move I was compelled to serve a notice on the owner of the building. This very quickly had the desired effect.

I found pigs being housed in a building which is not the prescribed distance from the dwelling houses in that vicinity. The owner's attention was called to it, and also to the state of another building close by used for a similar purpose. After certain very necessary alterations were made to the latter building the pigs were not kept in the former one.

During the year the premises in connection with 20 cases of infectious disease were disinfected. Of that number 11 were of Scarlet Fever, 8 of Diphtheria, and 1 of Puerperal Fever. The necessary fumigation and disinfection in each case was carried out. Notices also were issued to the School Attendance Officer and the Head Teachers of the Schools concerned, informing them of all infected houses, and requesting them to exclude all children from such until further notice. After disinfection was completed, and in the opinion of the Medical Officer of Health there was no risk of infection, the teachers were advised that the children might return to School.

If the members of the family were engaged in certain trades or occupations their employers were at once notified.

The Dairies, Cowsheds and Milkshops were visited and found to be in a cleanly and satisfactory condition with the exception of one cowshed. The floor of this cowshed has since been taken up and entirely relaid, besides other desirable alterations and improvements effected. At the end of the year there were 45 persons registered.

Under the Sale of Food and Drugs Acts, 69 samples were submitted to the Public Analyst for analysis.

The samples collected were 38 of milk, 5 of Epsom salts, 4 of baking powder, 3 each of butter, lard, and Demerara sugar, 2 of olive oil, and one each of cheese, ground coffee, castor oil, Gregory powder, tincture of iodine, purified cream of tartar, citrate of iron and quinine, lime water, sweet spirits of nitre, liquorice powder and paregoric.

Twenty-six samples were taken informally.

Eight samples were adulterated. Three of these being informal samples, they could not be dealt with directly. One of them however led to an adulterated sample being procured. The adulteration though was slight, and at the suggestion of the Public Analyst, the vendor was written to. Legal proceedings were instituted in respect to four. Three convictions with fines and costs were obtained, and costs only were granted in the fourth. The fines and costs allowed by the Court amounted to the sum of £14 18s. 6d.

A periodical inspection was made of the Factories and Workshops. In the few cases where defects were found, these were quickly rectified upon verbal intimation being given to the occupiers.

I am, Gentlemen,

Your obedient servant,

A. SIMPSON MACARA,

*Sanitary Inspector.*

**INSPECTIONS.**

	No. of Premises Inspected.	No. of Visits Paid.
<b>Houses.</b>		
Houses inspected in routine ... ..	385	1195
„ re-inspected... ..	315	
„ inspected on complaint ... ..	35	
„ inspected after Infectious Diseases	31	79
Common Lodging Houses ... ..	1	7
Common Yards, Courts and Alleys		Numerous
<b>Schools</b> ... ..	10	17
<b>Trade Premises.</b>		
Bakehouses ... ..	24	53
Laundries ... ..	13	13
Cowsheds ... ..	7	15
Milkshops and Dairies ... ..	44	66
Icecream Shops ... ..	26	26
Slaughter-houses ... ..	10	44
Markets ... ..	1	Numerous
Other Factories ... ..	58	60
Other Milkshops ... ..	95	98
Other Workplaces ... ..	27	27

**REMEDIAL WORKS.**

	No. of Defects.
<b>Houses.</b>	
Houses placed in habitable repair ... ..	31
„ Disinfected ... ..	31
„ in which overcrowding abated ... ..	7
Sleeping-rooms cleansed ... ..	54
Living-rooms ... ..	22
Staircases cleansed... ..	13
Walls and ceilings damp and defective, remedied	55
Roof, guttering and spouting repaired ... ..	69
Windows made to open ... ..	121
Ventilation improved ... ..	34
Sash cords repaired ... ..	78

<b>Drainage.</b>	No. of Defects.
Water closets repaired ... ..	29
„ „ cleansed ... ..	4
Cisterns and flushing apparatus repaired ... ..	68
Drains repaired ... ..	70
„ unstopped ... ..	14
„ tested by water ... ..	15
„ tested by smoke ... ..	24
Sinks provided where none existed ... ..	5
Stable connected to sewer ... ..	1

**Water.**

Water taps defective, remedied ... ..	16
Water taps removed and placed over sinks ... ..	4

**Yards.**

Yards repaired ... ..	35
Ashpits abolished ... ..	7
Sanitary dustbins defective, remedied ... ..	133
Accumulations of manure, etc., removed ... ..	11

**Food.**

Number.

Samples of food and drugs taken .. ..	69
„ milk taken ... ..	38
„ adulterated ... ..	8
Summonses issued ... ..	4
Convictions ... ..	3
Costs only, ordered to be paid ... ..	1

**Various.**

Rag and bone business removed ... ..	3
Birds and animals improperly kept, removed, cases	7
Miscellaneous nuisances abated ... ..	40

**Clerical Work.**

Notices served, informal ... ..	273
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## VETERINARY INSPECTOR'S REPORT.

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In making a report of the year's work, I take that portion which is of most interest from a health point of view, *i.e.*, the production of a pure milk supply.

With the introduction of the Tuberculosis Order, 1st May, 1913, power has been given to slaughter, with compensation, cows that are affected with Tuberculosis of the Udder, or that are in the last stages of Consumption.

Notices have been served on the owners of 8 cows ; 3 showed Tubercle Bacilli in the milk, 3 were emaciated with Generalised Tuberculosis, the remaining 2 being simple Inflammation of the Udder.

The number of licensed cowsheds in the City is 9, and an average of 178 cows. The cowsheds are in fair condition as regards ventilation, air space, drainage, and impervious flooring.

Practically all the milk produced is consumed in the City, but a large quantity is sent in from the neighbouring districts and by rail.

GEORGE ELMES, F.R.C.V.S.

**TABLE I.—Vital Statistics of Whole District during 1913 and previous Years.**

YEAR.	Population estimated to middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THIS DISTRICT.			
		Uncor-rected Number	Nett.		Number	Rate.	of Non-residents registered in the District.	of Resi-dents not reg-istered in the District.	Under 1 Year of Age.		At all Ages.	
			Number	Rate.					Number	Rate per 1000 Nett Births.	Number	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1908	18400	...	348	18.9	217	11.7	21	2	29	91.7	198	10.7
1909	18600	...	375	20.1	233	12.5	24	6	28	81.3	215	11.5
1910	18700	...	338	17.9	248	13.2	37	5	20	59.1	216	11.5
1911	18132	337	336	18.53	236	13.01	27	10	33	98.21	219	12.07
1912	18300	350	349	19.07	225	12.29	27	14	28	80.22	212	11.58
1913	18437	355	352	19.09	243	13.18	37	9	20	56.81	215	11.11

Area of District in acres (land and inland water) ... 997 acres 1 rd. 13 pls.

Total population at all ages	...	...	...	18,132
Number of inhabited houses	...	...	...	3,904
Average number of persons per house	...	...	...	4.64

} At Census of 1911.

**TABLE II.—Cases of Infectious Diseases notified during the Year 1913.**

NOTIFIABLE DISEASES.	Number of Cases Notified.								Total cases removed to Hospital.
	At all Ages.	At Ages—Years.							
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.	65 and upwards.	
Small-pox ...	...	...	...	...	...	...	...	...	...
Cholera ...	...	...	...	...	...	...	...	...	...
Diphtheria (including Membranous Croup)...	8	...	6	1	...	1	...	...	4
Erysipelas ...	8	...	...	1	...	3	...	...	...
Scarlet Fever ...	11	5	5	...	1	...	...	...	9
Typhus Fever ...	...	...	...	...	...	...	...	...	...
Enteric Fever ...	...	...	...	...	...	...	...	...	...
Relapsing Fever ...	...	...	...	...	...	...	...	...	...
Continued Fever ...	...	...	...	...	...	...	...	...	...
Puerperal Fever ...	1	...	...	1	...	...	...	...	...
Cerebro-spinal Meningitis ...	...	...	...	...	...	...	...	...	...
Poliomyelitis ...	...	...	...	...	...	...	...	...	...
Pulmonary Tuberculosis	38	...	4	7	16	11	...	...	...
Other forms of Tuberculosis	18	5	7	2	4	...	...	...	...
Chicken Pox ...	23	9	11	2	...	...	...	...	...
Totals ...	107	19	33	14	23	15	2	13	

Isolation Hospital or Hospitals, { Sisters' Hospital for Scarlet Fever and Diphtheria. } Belong jointly to St. Albans Urban, Harpenden Sanatoria, &c. { Small-pox Hospital. } Urban and St. Albans Rural Districts.

TABLE III. CAUSES OF DEATH BY AGE GROUP DURING THE YEAR 1910.

CAUSES OF DEATH.	Nett Deaths at the subjoined ages of "Residents" whether occurring within or without the District.										Total Deaths whether Residents or Non-Residents in the District.
	All Ages.	Under 1 year.	1 and 2.	2 and 5.	5 and 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards.		
All Causes { Certified... Uncertified	213 2	19 1	9 ...	10 ...	5 ...	3 ...	16 ...	51 1	100 ...	84 ...	
Enteric Fever ...	...	...	...	...	...	...	...	...	...	...	
Small Pox ...	...	...	...	...	...	...	...	...	...	...	
Measles ...	6	1	3	2	...	...	...	...	...	...	
Scarlet Fever ...	...	...	...	...	...	...	...	...	...	1	
Whooping Cough ...	3	...	2	1	...	...	...	...	...	...	
Diphtheria and Croup ...	...	...	...	...	...	...	...	...	...	...	
Influenza ...	3	...	...	...	...	...	...	1	2	...	
Erysipelas ...	...	...	...	...	...	...	...	...	...	...	
Phthisis (Pulmonary Tuberculosis) ...	15	...	...	...	...	...	6	6	1	9	
Tuberculous Meningitis ...	...	...	...	...	...	...	...	...	...	6	
Other Tuberculous Diseases ...	1	...	...	...	1	...	...	...	...	...	
Cancer, Malignant Disease ...	22	...	...	...	...	...	...	13	9	8	
Rheumatic Fever ...	...	...	...	...	...	...	...	...	...	...	
Meningitis ...	4	...	...	3	...	...	...	...	...	...	
Organic Heart Disease ...	29	...	...	...	1	...	4	9	15	9	
Bronchitis ...	19	2	...	1	...	...	1	1	14	2	
Pneumonia (all forms) ...	12	2	1	2	...	...	1	2	2	1	
Other Diseases of Respiratory Organs ...	2	2	...	...	...	...	...	1	1	1	
Diarrhoea and Enteritis ...	2	...	...	...	...	...	...	...	...	...	
Appendicitis and Typhlitis ...	1	...	...	...	...	...	...	1	...	1	
Cirrhosis of Liver ...	1	...	...	...	...	...	...	...	...	...	
Alcoholism ...	1	...	...	...	...	...	...	...	1	...	
Nephritis and Bright's Disease ...	3	...	...	...	...	...	...	1	1	2	
Puerperal Fever ...	...	...	...	...	...	...	...	...	...	...	
Other Accidents and Diseases of Pregnancy and Parturition ...	...	...	...	...	...	...	...	...	...	...	
Congenital Debility and Malformation, including Premature Birth...	7	6	1	...	...	...	...	...	...	2	
Violent Deaths, excluding Suicide ...	2	...	...	...	...	1	...	...	1	...	
Suicide ...	3	...	...	...	...	...	1	1	1	2	
Other Defined Diseases ...	78	7	1	1	1	...	1	15	52	46	
Diseases ill-defined or un-known ...	1	...	1	...	...	...	...	...	...	...	
All Causes ...	215	20	9	10	5	3	16	52	100	84	



TABLE IV.—Infant Mortality during the Year 1913.

CAUSE OF DEATH.	Under 1 week.		1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 4 weeks.	1-3 months.	3-6 months.	6-9 months.	9-12 months.	Total Deaths under 1 year.
	Certified	Uncertified	...	...	...	...	...	...	...	...	...
All Causes	9	...	...	1	...	10	2	3	2	2	19
Small Pox	...	...	...	...	...	...	...	...	...	...	...
Chicken Pox	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	...	1	1
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	...	...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculosis	...	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...
Meningitis (not Tuberculous)	...	...	...	...	...	...	...	...	...	...	...
Convulsions	...	...	...	...	...	1	...	1	...	...	2
Laryngitis	...	...	...	...	...	1	...	1	...	...	2
Bronchitis	...	...	...	1	...	1	...	1	1	...	2
Pneumonia (all forms)	...	...	...	...	...	...	...	1	1	...	2
Diarrhoea	...	...	...	...	...	...	...	...	...	1	1
Enteritis	...	...	...	...	...	...	...	...	...	1	1
Gastritis	...	...	...	...	...	...	...	...	...	...	...
Syphilis	...	...	...	...	...	...	1	...	...	...	1
Rickets	...	...	...	...	...	...	...	...	...	...	...
Suffocation, overlying	...	...	...	...	...	...	...	...	...	...	...
Injury at Birth	1	...	...	...	...	1	...	...	...	...	1
Atelectasis	1	...	...	...	...	1	...	...	...	...	1
Congenital Malformations	1	...	...	...	...	1	...	...	...	...	1
Premature Birth	2	...	...	...	...	2	...	...	...	...	2
Atrophy, Debility and Marasmus	2	...	...	...	...	2	1	...	...	...	3
Other Causes	2	...	...	...	...	2	...	...	...	...	2
	9	...	...	1	1	11	2	3	2	2	20

Nett Births in the year—Legitimate 343, Illegitimate 9. Nett Deaths in the year—Legitimate Infants 19, Illegitimate Infants 1.