

[Report 1902] / Medical Officer of Health, St Thomas (Exeter) R.D.C.

Contributors

St. Thomas (Exeter, England). Rural District Council.

Publication/Creation

1902

Persistent URL

<https://wellcomecollection.org/works/cp2rhr4>

License and attribution

You have permission to make copies of this work under a Creative Commons, Attribution license.

This licence permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See the Legal Code for further information.

Image source should be attributed as specified in the full catalogue record. If no source is given the image should be attributed to Wellcome Collection.




Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>

S. THOMAS
RURAL DISTRICT COUNCIL.

REPORT
OF
MEDICAL OFFICER
OF
HEALTH.

1902.

EXETER :
BURRIDGE & CANNICOTT, Printers, Musgrave Alley, High Street.
1903.



Digitized by the Internet Archive
in 2018 with funding from
Wellcome Library

<https://archive.org/details/b30129990>



To the

Chairman and Members of the . . .

S. Thomas Rural District Council.

GENTLEMEN,

IT is my privilege to present to you the Sixth Annual Report on the Health and Sanitation of your District, being that for the year 1902, and I have much pleasure in stating that, as regards the former of these two items, with one exception it is the most satisfactory that I have yet issued, and with the latter, that considerable progress has been made.

The District covers 109,604 acres, with a population at the census of 1901 of 25,994. This includes 1,163 inmates of the Devon County Asylum and 311 of the Starcross Idiot Asylum. These are not included in the figures used for the estimation of the Vital Statistics, and allowing that the population is still decreasing at the rate of the last decennial period, the population is estimated at 24,410 at the middle of the year 1902.

As in previous years, I have sub-divided the whole area into 5 sub-districts, 4 being grouped around the rivers which pass through the District, while Topsham is taken by itself. The divisions are very natural ones, as the geological formations are nearly coterminous with each. The Clyst is mainly composed of the lower marls and lower sandstone of the Permian series; the Exe at its north and south of lower sandstone, and in the middle of conglomerates, all also of the Permian, with a band

of alluvial soil along the river itself; the Otter of the upper sandstone of the Permian, being separated from the Clyst by the pebble beds of Woodbury Common; the Teign for the most part of carboniferous shales, which run to a small extent into the north of the Exe district, while to the south it is separated from the latter by the upper greensand of the Haldon Hills. The town of Topsham proper is on the lower sandstone, but the rest of the parish is on alluvial soil.

WEATHER.

In this respect the year 1902 was most extraordinary. The total rainfall was 27·88 inches, being 1·53 less than the average of the last 10 years. But the number of wet days was 174, which is in excess of the average. With the exception of November, when the fall was 4·19 inches, the wettest month was August with 2·85. With the exception of January, March, and April, when the fall was much below the average, every month showed over two inches of rain, and excepting a few days in June and July, the temperature was much below the average. This latter had a favourable effect on the death-rate, as for the first time there have been no deaths from epidemic Diarrhœa, and intestinal disorders were generally characterised by their absence. The death-rates for July, August, September, and October were 8·1, 8·6, 7·4, and 6·2 respectively, which is an extraordinary sequence of low mortality.

VITAL STATISTICS.

The total number of deaths registered as occurring in the district was 406. Of these 130 were in the various Institutions in the district, 6 of which were of "residents." To these must be added 20 which occurred in the Union Workhouse and 10 in the Royal Devon and Exeter Hospital. This gives a nett total of 312, and a death-rate of 12·7 per 1,000 of estimated population. This is a most satisfactory figure, the lowest recorded, and no less than 3·1 under the average for the last five years.

The number of births is 557, giving a rate of 22·8. This is rather under the average. There were 282 male births and 275 female.

The number of deaths under one year was 48, giving an infantile mortality of 86 per 1,000 registered births. This is much less than the average, and by far the lowest recorded.

The combined infantile and zymotic rate is only 2·0, and that under 5 years only 2·4.

The following Table gives in tabulated form the figures for the whole and the sub-districts with the corrected averages for the last five years :—

	Area.	Population.	Death Rate.	Birth Rate.	Infantile Mortality.	Zymotic D. Rate.	Phthisis D. Rate.
General ...	109,640	24,410	12·7	22·8	86	·12	·86
Average (1897-1901) }		24,800	15·9	23·6	110	1·07	·92
Clyst ...	33,870	7,620	14·6	23·6	94	·13	·91
Average ...		7,658	15·2	25·1	105	·80	1·04
Exe ...	34,364	8,110	12·0	23·1	58	·12	·98
Average ...		8,208	13·4	22·3	117	1·13	·61
Otter ...	13,074	2,400	11·2	20·0	83	·00	1·25
Average ...		2,547	18·6	22·3	115	1·03	1·21
Teign ...	30,396	3,500	11·7	24·5	104	·27	·57
Average ...		3,566	18·3	27·5	107	1·29	·54
Topsham ...	3,379	2,780	12·2	19·7	145	·00	·36
Average ...		2,790	18·1	23·2	116	1·06	1·79
Rural England & Wales			15·3	27·4	119	1·14	

It will be seen that the death-rates for all the districts are below the averages, those for the Otter, Teign, and Topsham being especially so. In all these three latter the rates are by far the lowest recorded. It is to be hoped that these low rates will prevail for some time, and these excessive averages brought down. It is bad for rural districts such as these to have a five years' average so much greater than that for Rural England and Wales generally.

The birth-rates are mostly below the averages, the Teign, which has the highest average, again holding the lead,

The infantile mortality in the Exe district is most satisfactory and exceedingly low. That for the Otter and Teign are also good. Topsham is most unfortunate in this respect, as here there were four deaths from premature birth, being half of the number that occurred from that cause in the whole district, and also half of the deaths under one year at that place. If these babes had been born dead instead of living a few minutes only, the infantile mortality here would have been halved. Topsham suffered in the same way last year, and by this means the average is misleading.

Disease Incidents.

ZYMOTIC DISEASE.

The most satisfactory feature of the year is the low mortality from Zymotic Disease. There were only three deaths registered during the year, and one of these occurred in 1901. This was from Measles at Kenn. The others were one from Scarlet Fever at Pinhoe and one from Enteric Fever at Christow. This is the third year that there has been no death from Zymotic Disease at Topsham, while it is the first for the Otter. Practically the Exe should have the same figure.

NOTIFIABLE DISEASES.

The only unsatisfactory feature of the year is the increase in the number of cases of disease, this having risen from 93 last year to 114. It is, however, an improvement on the average for the eight years since the Act came into force, namely, 133. For the previous five years the number has been below 100. The rise is entirely due to Scarlet Fever, and is chiefly in the Exe and Clyst districts, the rates here being 5.6 and 6.1 respectively. The Otter is low with 1.6, the Teign and Topsham being 2.5 each. There were 32 cases in the first six months of the year, and 82 in the six latter months. I made personal inquiries into 62 of the cases.

SMALLPOX.

I am glad to be able to state that no cases occurred. In April I was informed by the Exeter Authorities that a man had come into the City, and was found the same evening to be suffering from Smallpox. He had walked in, and had stopped for some time in a public-house at Rockbeare. I immediately went to the house, and persuaded all those who had not recently been re-vaccinated to be done at once. I am glad to say that my advice was followed. The premises were fumigated and thoroughly cleansed.

The question of the desirability of the notification of Chicken-pox was discussed, as in some cases the resemblance between this disease and Smallpox is very great. I did not advise this step, as it would be impossible, as is done in some places, to verify the diagnosis. Indeed, also, this would be much out of order, and not allowed by the regulations of the Local Government Board. I advised the billing of the district with notices asking those in charge of children apparently suffering

from Chicken-pox to have the same confirmed by medical advice. My opinion was asked by the Doctor attending one doubtful case, which I had no hesitation in saying was one of Chicken-pox.

Owing to there being some cases in Exeter in the early part of the year, and also partly to the epidemic in London, a very large number of Re-vaccinations were done. The default in primary vaccination in this district is larger than all the other Unions in Devon, excluding those that consist entirely of large urban centres of population. In 1899, the latest figures available from the report of the Local Government Board, the default was 7.5 per cent. of births. By default is meant those that are left unvaccinated after the number of those who have taken out certificates of objection and those who have died before being vaccinated have been subtracted.

If this country were as efficiently vaccinated as in Germany these recurring and expensive scares would be entirely avoided for the reason that Smallpox would be as extinct here as it is there.

DIPHTHERIA.

Four cases only of this disease were notified, and there were no fatalities. One case was at Sowton (probably contracted in Exeter), one at Exminster, one at Topsham, and one at Pinhoe. The latter, when admitted to the Sanatorium, gave no Bacilli, and the membrane which was present before admission had all cleared up, so the case was an exceedingly mild one.

ERYSIPELAS.

There were eleven cases, less than in previous years. As this is not an infectious disease in the ordinary sense of the word these cases are not visited.

SCARLET FEVER.

It is here that the only falling off from the experience of recent years has occurred. The number of cases was 85, more than double of any year since 1896. This is a disease which tends to run in cycles, and although the epidemic has been the largest which has occurred since my appointment, it is by no means as large or as long continued as those which happened in previous times. This result can only be attributed to the efficient means for isolation and disinfection which the Council now possess.

The incidence fell very heavily on the Exe and Clyst districts, due entirely to distinct outbreaks at Ide and Pinhoe. That at Ide consisted of 18 cases. The first cases occurred early in July, seven being reported in a few days, followed after another ten days by two more. On the occurrence of the first cases the school children were examined, and although some doubtful histories were obtained, no one was discovered who showed definite signs of having had the fever. The doubtful cases were excluded from attending, and it was hoped that the outbreak had been checked. On the occurrence of the next cases the Managers closed the school for the summer holidays, being a fortnight earlier than usual. The next case did not occur until September, and was a "return" case, due to infection from a previous case in that house which had returned from the Sanatorium a fortnight previously. The interval was rather long, but I think there is no doubt that this was the cause. The girl, shortly after coming home, had developed a mucous discharge from the nose, and which often in such cases brings a recrudescence of infection. A case in another part of the village was reported ten days later, but apparently had no connection with the previous cases. Then in the middle of October six fresh cases occurred in three houses. The infection in the first of these cases came from the girl above mentioned. On the occurrence of the first return case, her mother was instructed to keep her entirely apart from other children until the discharge from her nose had ceased. This was done until she changed houses, and the girl helped to carry some of the furniture to the new house. In this she was assisted by some other children, three of whom developed the fever. The other cases were secondary to these. The last case occurred at the end of December in a man, and in another part of the village.

The outbreak at Pinhoe was more extensive; the cause was not found, and it was more difficult to deal with. The number of cases was 22, the first being reported in the first week of August. There were three cases in two houses, followed a few days after by a secondary case in one house. A single case occurred in the middle of the month. The next case was in the middle of September. Then in the early days of October four more cases were reported, and on this the Managers closed the schools because the attendance had fallen from fear on the parents' part of infection. I was of opinion that this action was premature, but it was justified by the occurrence of 8 more cases in rapid succession. There was a pause for ten days, when a boy developed the disease, but he was not a scholar, and lived in an outlying part of the village. A secondary case arose in a house where the first case was not removed to the Sanatorium. Then three cases occurred simul-

taneously in another isolated cottage, all in children, but no cause could be found for it. The children had not been anywhere together, nor had any other children been to the cottage. Finally, the last case occurred at the end of December. This was a curious one. The child was only two years old, and owing to the mother having been unwell she had not taken the child out at all, and no one had come into the house.

A small outbreak arose at Honiton Clyst in November, which has not yet quite ended. There were 7 cases, 5 of which were in one house. The first child who contracted the disease had been playing two days before with a child who had come out from Exeter for the day. On the chance that this might have been the infecting agent, I mentioned the case to the City Authorities, who kindly enquired into the case. It was reported that the child had had an illness, slight in nature, as also had another in the same house. The children were watched carefully, but there was no sign of peeling. The other cases developed, two at a time, from this first case, the infection spreading immediately on the onset and before the infecting case could be removed. The two other cases arose a month later, and no cause could be found for these.

There were six cases at Kenn, in the Exe district. Five were in July, and one in the middle of August. The first four were in girls attending the girls' school, and arose within a few days of one another. I visited the schools, but found no suspicious cases, nor any one who had been absent from school on account of any indefinite illness which might have been an unrecognised case of Fever.

The remaining cases in the Exe district were a single case at Huxham in a child aged two years, in an isolated cottage, neither the child, the only one, nor the parent having been away from home for a week or more; two cases at Stoke Canon, in different houses and at different times, having no relation to one another; two cases at Brampford Speke in one house; five cases at Lymptone, four being in February in three houses, the other being in November; and at Kenton there was one case in an isolated cottage. There were three cases at Upton Pyne, two in February, and the other in September. The latter was possibly contracted in Exeter, as well as the first of the earlier cases. This was in a young woman, and she, after having been told by her Doctor that she was suffering from Scarlet Fever, walked about the village. After she had come back from the Sanatorium she was prosecuted for this wilful exposure and a conviction obtained. Only a nominal fine was inflicted, as the case was not pressed, but only intended to act as a warning.

The remaining cases in the Clyst district include five cases at Woodbury, four being in one house, in January. The first of these was removed to the Sanatorium, but a few days after another child sickened. Then the Sanatorium was full, and she could not be admitted. The two other cases were infected from this one, and were all removed later to the Sanatorium when there was room.

There were single cases at Sowton and Rockbeare. The latter proved a doubtful case, and, if anything, was contracted in Exeter.

The three cases in the Teign district were two at Whitstone in January, where some cases had occurred in the end of last year, and a case in an isolated cottage at Tedburn. There was no cause suggested for this last case.

Of the seven cases at Topsham six were at Countess Weir. Three were in January, two in one house arising after a dance, at which it is possible that there was some one who was in an infectious state. The other cases occurred singly, one of which is probably accounted for by school influence. The child attended the school at Topsham Barracks, and there had been cases there among some other children. This school is in Heavitree. The other case was in Topsham proper, and no source of possible infection could be suggested.

From this account of the year's experience of Scarlet Fever an idea may be gained of the difficulty of dealing with outbreaks of this disease. The great and initial difficulty is the existence of slight and undiscovered cases of the disease. The period of the infectious state is so long, six weeks, that such cases go on distributing disease for this period. Luckily these cases do not appear to be so infectious as the more acute ones, at least that is the experience this year. Then there is the great infectivity in the acute stage of the disease, so that others are attacked in the same house before or shortly after the initial case has been isolated.

It is necessary in most cases to remove those who are attacked to the Sanatorium as it is impossible to persuade parents to keep them isolated for over six weeks. In one case, at Pinhoe, where it seemed that there was sufficient accommodation at home and the parents were averse from the children being removed, they were allowed to remain. But a few days after I visited to see that all precautions were being observed and found that both children were downstairs in the living room. They were immediately removed, but it shows the necessity of extensive removals in these cases. The difficulties are not ended with the removal of patients, for there is the possibility of what are known as return cases. The term is applied to fresh cases

arising in a house after a case has returned. The arbitrary period fixed for these cases is three weeks, but as seen at Ide the infection can last a much longer time than this, being here nearly seven weeks. Previous to this year there has only been one instance of this, which is most fortunate. In some places the number of return cases has been such as to seriously affect the value of removal in Scarlet Fever. However, there can be no question as to its value in this district, and if it had not been for the facilities for removal available the prevalence of Scarlet Fever would have been much more. This is shown from the number of places where only a few cases have occurred, and on prompt removal and disinfection no further cases have arisen.

ENTERIC FEVER.

Another great improvement for the year is the diminished number of cases of Enteric Fever, the number being 12, the lowest that has occurred since the adoption of the Notification Act. The average for the last five years is 37.

The Clyst district had the greatest number, namely five. Of these, two were at Clysthydon in one house. The first case was that of a man who worked in Exeter all the week, and came home on Sundays only. The drains were defective here, allowing of soil pollution, but the water was not analysed. He was removed to the Sanatorium immediately. The second case did not occur until two months afterwards. The infection must have some connection with the first case, but it is difficult to account for it. It may have been a similar cause for both cases, or that the first case left some infection behind him. Possibly some of his infectious excretions passed into the soil before the defective drain was repaired, or it is possible that some of the bedding was infected in a similar manner. But this is doubtful, as he was removed before he became seriously ill, and there was no account of his bedding being soiled involuntarily as occurs in serious cases. The Bacillus of Enteric Fever can remain in contaminated bedding for a long time with its vitality unharmed. Another possibility is that on his discharge he was still passing bacilli in his urine, as sometimes happens to an extraordinary extent, and the infection carried on in this way. A case at Whimple, unaccounted for, on premises that were in a sufficient state of sanitation; one at Pinhoe, under similar circumstances, a very mild case; and a case at Broadclyst. Here the water was grossly polluted, but there had been no specific pollution of the soil that could be traced. The premises were being put into a thoroughly satisfactory state as far as the drains were concerned, but they were being carried into an unlined cess pit within a short distance of the well, offering an obvious and dangerous source of pollution. Connection with the sewer was enforced.

In the Exe district there were four cases, two being at Exminster. One of these proved to be influenza. The origin of the other was uncertain. There were cases of each at Upton Pyne and Alphington, both unaccounted for.

The single case in the Otter district was at East Budleigh, also unaccounted for.

In the Teign district there was a case at Christow. This patient died shortly of General Tuberculosis, and it is possible that what appeared to be Enteric was the early manifestations of this disease. The two are difficult to distinguish at an early stage. The other case was at Doddiscombsleigh, unaccounted for, and which proved fatal.

PUERPERAL FEVER.

The two cases, both of which proved fatal, were at Woodbury and Christow.

Non-Notifiable Zymotic Diseases.

MEASLES.

This has been of a very slight amount, there being no death and only two outbursts of sufficient intensity to cause school closure, these being at Whimple and Countess Weir. A case occurred in August, at Whimple, in a visitor, and a second case followed in the same house. No further cases arose until December, when 31 scholars were absent on the ninth. Not all of these were ill, but had been kept from school because of Measles in the house. The delay of the outbreak, and the sudden onset is most unusual.

WHOOPIING COUGH.

For the first time the district has been free from fatalities from this disease, and no cases were brought to my notice.

EPIDEMIC DIARRHŒA.

There have also been no deaths from this cause. This may be partly attributed to the absence of hot weather in the late summer and autumn. Possibly the death from Enteritis which occurred in an infant of two months old in August should have been certified as under this head.

Other Specific Diseases.

INFLUENZA.

There has been a further fall in the mortality from this disease, there only being seven deaths. Three of the deaths in the Clyst district are in quite young infants, namely of 14 days, one month and two months respectively. One case occurred in July.

PHTHISIS.

The deaths from this year, though two more than last year, are one less than the average. There is a great improvement at Topsham, where only one case occurred, the average of 1.79, which is very high, having fallen to .36. The Exe district, with eight cases, is above its average, whilst the Clyst shows a slight improvement. The other districts remain about the same. The cases were generally scattered over the district, the only parishes that had more than one death being Woodbury, Broadclyst and Exminster, where there were two each.

I have, in previous reports, laid especial stress on the necessity of preventive measures being generally adopted against this disease. It produces its effects at the most valuable period of a person's life, and produces a mortality in excess of all the chief Zymotic diseases. At this time it is easy to remember the panic at the Smallpox epidemic in London, and the strenuous effort that was successfully made to stamp it out. I am probably within the mark in saying that there are at present more cases of Phthisis in London than there were cases of Smallpox. But one creates panic, and of the other no notice is taken. The infection is the same, with only a question of degree. In Smallpox the spread of the disease is great and obvious, the disease itself short and dangerous, and all agree on the necessity of drastic methods in dealing with it. In Phthisis the march of the disease is slower, and almost imperceptible, but it is none the less sure. It is within the bounds of possibility that a case of Phthisis is capable of distributing as much infectious material during the years that it exists as a case of Smallpox during its short and virulent course.

The first and obvious step in the way of preventive measures is that of compulsory notification of the disease. If one does not know where the cases exist, it is impossible to

deal with them. The official view of the Local Government Board is opposed to this, the standing argument against it being that it is not a disease to which the principle of notification is applicable because of its chronicity, and that during a great period of the time a person is able to go about and earn his living. But it is doubtful if the supervision which would follow notification would at all interfere with a man's livelihood, at all events that is not the experience of those places that have adopted the principle of voluntary notification. But the argument seems to be essentially weak. In mild cases of Scarlet Fever a person is able to go about and earn his living, but that is no argument for his being allowed to spread infection broadcast. More than that, is the risk of one man's living being interfered with a valid reason for allowing him to have the chance of infecting his brother workers. It is probable that as the public at large become educated to the pitch of recognising that a consumptive patient is a source of potential danger to his fellows, that they will decline to work with him unless he takes proper precautions. These are summed up in the measures to prevent the source of infection, the sputum, from being disseminated. This can be done by using portable spittoons, which can be washed and disinfected, or, preferably, by the use of paper handkerchiefs, which are quite cheap, and can be burnt after use. Particular attention should be paid to general sanitary rules as to lighting and ventilation.

MUMPS.

This disease was prevalent to an extraordinary degree at Exminster and Whimple, the school attendance being markedly affected by it in both places.

CANCER.

This terrible disease still remains a problem, and until this is solved it is impossible to dream of anything like prevention. The number of deaths is 20, being about the average. The largest number is again in the Clyst district.

OTHER DISEASES.

The mortality from diseases of the lungs has fallen by about 20 per cent., and the fall in Heart Disease is also considerable. Deaths from violence are four less, and the indefinite cause of old age has also fallen, and finally there is a fall of 24 in the group of all other diseases.

Sanitary Administration.

INFECTIOUS DISEASE.

SANATORIUM.

Under the arrangement with the Exeter City Council 75 cases were removed to their Infectious Disease Hospital for isolation. This is the largest number that we have yet had occasion to put there, and the good that was done by their removal is difficult to overestimate. Only once during the year was there any difficulty, in January, and the delay led to two further cases in that house. I am glad to take this opportunity of expressing my obligation to the City Chief Sanitary Inspector for his readiness at all times to facilitate the removal of our cases by freely placing the ambulance at my disposal.

The Heavitree Urban District Council, being under notice to determine the tenancy of their present premises, suggested to this Council the advisability of combining to form a joint Hospital district. The suggestion was carefully considered, and the conclusion was arrived at that as we were being well served by the Exeter Council, the advantages to be gained by co-operating with Heavitree were not sufficient to justify the large expenditure involved in building a Hospital

The Heavitree Council have purchased a site in the parish of Pinhoe in this district for the erection of a Hospital, thereby depreciating the value of a good building site. To prevent opposition there is no intention of applying to the Local Government Board for a loan, the whole expense being borne out of current revenue.

At the time of the outbreak of Smallpox in Exeter, the question was raised of what should be done in the event of the accommodation at their Sanatorium being insufficient should the epidemic become extensive. A site was looked for, and one found in an almost completely isolated position, there being only one farmhouse in that valley, and that at a distance of nearly half a mile. The tenant agreed to give the Council an option to enter and erect a temporary hospital, but the landlords, the Ecclesiastical Commissioners, declined to agree as the approach would be through the village of Ide. An alternative site was offered, on the top of a hill, close to some cottages, and which would have entailed the sinking of a well over 60 feet in depth, and the approach to it was also partly through Ide. However, as by this time it was evident that the outbreak was not going to be extensive, the matter dropped.

DISINFECTION.

The new methods of disinfecting clothes by steam and fumigating with formic aldehyde have been severely tested during the year, and have proved entirely satisfactory. In spite of the large number of cases of infectious diseases, only one case has arisen in which there might be a suspicion that the fresh case was due to inefficient disinfection. Here it was probably due to a continuance of the original source of infection, but it cannot be stated definitely. The fresh case occurred nearly a month after the first. This is a great improvement upon what has happened in previous years.

The plan of a special officer, with fees for work done, has proved expensive. For little more than has been paid in this way an officer could be employed for his whole time.

HOUSE ACCOMMODATION.

The house accommodation varies considerably in different parts of the district, being better in some than in others. In some parts some of the cottages are held on leaseholds, which have nearly expired. These are most difficult to deal with, as the tenant has no interest in keeping the house habitable, and when the lease has only a year or so to run it seems a hardship to cause the expenditure of considerable sums to place them in good repair. Some are let on merely nominal terms, and the landlords refuse to dispossess the tenants on charitable grounds. With such a case great difficulty has been experienced this year. A house was condemned as unfit for human habitation, and an order obtained from the Justices to that effect. The tenant refused to leave the cottage, and she was then summoned for disobeying the order. Conviction was obtained and a small fine imposed, but still the tenant would not go, and matters were at a deadlock. The landlord was then appealed to, to evict the tenant, but he declined to do this as he had promised the cottage for a ground rent of 10/- a year for her lifetime. There the matter rests. Some time ago this landlord wanted to get rid of a similar tenant, and he appealed to the Council to use their powers to get her out of the house. This latter house was stated by the agent to be unfit for habitation, but it was infinitely better than the one that has been under consideration this year.

Building Bye-laws are in force at Pinhoe, Alphington, Broadclyst and Topsham. The Inspector of Nuisances is Surveyor for the three latter parishes. The amount of building that goes on is not great, unfortunately, but if it were, too much time would be taken up by the proper performance of the work, and seriously interfere with his other duties, he being the only Inspector engaged.

It would be a great advantage if the modified Bye-laws applicable to rural districts were adopted for the whole of the district. These are of such a nature as to restrict building by an irreducible minimum only, the absolute essentials of sanitary construction being all that is required, and it is of great importance that these should be enforced. The old Bye-laws are certainly open to the objection that in them matters are enforced which are not essential to rural districts, and which seriously added to the cost of the building.

SEWERAGE AND DRAINAGE.

The largest and most important work of the year in this respect has been the laying down of a complete system of sewerage and disposal works at Exminster. This was necessitated by the action of the Asylum Authorities in turning their sewage into a small sewer which drained some 40 houses, and where the sewage was treated by broad irrigation in the marshes below. This was quite insufficient for the added sewage, and in consequence the present scheme was evolved. This has just been completed, and the works are now in full order. A main sewer has been laid through the village, and the sewage treated by the Septic Tank System. Several small sewers that were previously in existence have been taken up, and the houses connected with the new system. Although the action of the Asylum Authorities forced on the matter, it is an excellent proceeding, as there had been much complaint as to the outfalls of some of the small lengths of sewer that previously existed.

The sewer that is being laid at Otterton has been further extended, and in consequence the bad condition of the brook has been correspondingly improved. This will, in the course of a year or two, be carried up to the head of the village.

A new length of sewer has been laid at Topsham to connect an isolated terrace of houses with the main system. This was necessitated by considerable nuisance arising from the cesspool into which the sewer was discharged. A small length of sewer which drained two houses and discharged on the foreshore has been renewed.

The sewer at Bramford Speke is to be extended to take the drainage of some houses where nuisance arises from lack of proper outfall.

The sewer at Starcross is to be extended to take the drainage of some new houses.

In last year's report the matter of the brook at Woodbury was mentioned. This practically takes the sewage of the whole village, and at the lowest part of the village it caused considerable nuisance. Instead of the sewage being taken out of the brook and a sewer constructed, as was recommended, the brook has been pitched. This, by preventing stagnation, and increasing the rapidity of the flow, has much improved matters, but it is only patchwork. Higher up in the village a block of cottages is situated, and of the sanitary state of which complaint was made. The privy accommodation was very insufficient, and the drainage was bad. There is no land available on the premises for the disposal of faecal matter from pail closets which were provided, and the matter of emptying these was left to the landlord, who agreed to do it. But to deal with these satisfactorily a drain should have been provided, and a sewer should be laid through the village.

The amount of Scarlet Fever that was present at Ide again has directed attention to the sanitary state of this village. There are a number of cottages which lie against the stream, and this is made the receptacle for all the refuse of these houses. In some the privies are made right over the stream, so that the faeces, etc., fall directly into it. When there is a scarcity of water in this, a very great nuisance arises. Most of the slop drains discharge into the road side water channels, which are practically open sewers. This place also needs a complete system of sewerage.

At Whimble, also, a similar state of affairs exists. This village contains several houses with water closets, the sewage from which passes into the stream, and in other cases this made the outfall for slop drains. The brook at the lower part is pitched, so that there is not much delay in the flow, but with grass and weeds there is some obstruction in the summer. Here also a small sewer would be of great service. This is the fate of most places when a water closet is introduced.

Owing to flood water passing up the drains and into the houses at the lower part of Alphington, the sewer is to be relaid, and a storm overflow constructed. The work is in hand at the present time.

Considerable nuisance has been caused by the outflow of the drains from the cider factory at Hele Station, and that from three houses there. The matter has been under discussion for some time, it being debateable as to whether there was not an infringement of the Rivers Pollution Act, and what was stated to

be a sewer was in reality a water course into which the drains had at different times been taken. However, it was thought that even if this was allowed, the owners would call upon the Council to provide a sewer for them, so the work has been taken in hand, and a length of sewer is to be constructed to effectually deal with the nuisance once and for all.

EXCREMENT DISPOSAL.

In a district such as this the disposal of excrementitious matters varies according to the locality. As far as possible the conservancy methods are adopted, as the indiscriminate making of drains and water closets is unnecessary in a large proportion of the district. Small lengths of sewer are most productive of nuisance, both at the inlets and at their outfall, and where these are multiplied it generally entails at some time the provision of a system of sewerage and sewage disposal at great expense.

Consequently a water closet is not recommended unless unavoidable, or unless there is already a sufficient sewer for it to discharge into. Insufficient and dilapidated privies are replaced either by pail closets or Poore's dry privy, while it is insisted that all water closets shall be on modern principles. Where these exist, and there is in addition the possibility of supplying sufficient water, a separate flush has to be provided

REMOVAL AND DISPOSAL OF HOUSE REFUSE.

The scavenging at Topsham and Lympstone is satisfactory. In both places it is done twice a week, and under contract.

At Ide the brook is used as a receptacle for all sorts of refuse, from buckets and tin cans to fish offal and vegetable refuse generally. In some cottages there is no other alternative.

WATER SUPPLY.

The sources of public supply in those places that have them are satisfactory. By far the greater part of the district is supplied by wells.

At Alphington the City water mains have been carried up to nearly the head of the village. A group of eight cottages was supplied by three wells, the situation of which led me to suspect that they might be polluted. They were analysed, with the result that they were found to be very grossly polluted, the

analysis being shown in the appendix. Notice was served to connect with the City water mains, but nothing was done. On the matter coming up a second time, the notices were withdrawn and the wells ordered to be cleaned out. I have frequently had to point out that in the great majority of cases when a well is polluted it is not because the well is dirty, but because the ground from which the water is drawn is foul. It is, of course, impossible to clean this, and it frequently happens that an analysis taken after a well has been cleaned is worse than before. No fresh analysis of these wells has been taken, and the water is still being consumed. There have been cases of Enteric Fever at Alphington every year but one of the last six, and most of them in this part of the village, and it does not seem consistent with the functions of a sanitary authority to allow poor people to go on drinking polluted water to save the owners of indifferent property the expense of connecting the cottages with the water mains which pass the door. It is not as if it involved the supplying of the whole parish with a public supply at the public cost, but a matter affecting the individual owner in the same manner as if a drain was defective. The words of the Statute on the point are as follows:—"Every Rural Sanitary Authority *shall* see that every occupied dwelling within their district has within a reasonable distance an available and sufficient supply of wholesome water."

The public well at Lymptone was analysed in consequence of some sewage being ponded back and getting into the well. The analysis was taken after the work had been done and the well allowed to settle to see if it was satisfactory. It could not be said to be satisfactory, and instructions were given that it was not to be used for drinking unless it had been boiled.

The sample at Pinhoe was analysed in consequence of a complaint. It proved unsatisfactory. The City water has been laid on to the premises.

The Ide sample is very bad. It was from a well which was under notice last year, and after it had been cleaned out. It is worse than it was before cleaning, and the well was ordered to be closed, as there was an alternative supply.

The Woodbury sample was from the lower part of the village, where much trouble has been experienced in finding pure water. This sample was allowed to pass, as the organic constituents were very low, but there is risk in its use, as the Chlorine is very high, and the Nitrates are rather excessive, indicating that the water has at some time come into contact with organic matter.

At Whitstone the houses at Nadderwater are supplied by one public well. I received a complaint that after heavy rain the water, as frequently is the case from the shillet, became very turbid. I recommended that a small sand filter be provided for use under these circumstances, but this was not done. A similar complaint under identical circumstances at Alphington has been thus remedied by the owner under notice.

PLACES OVER WHICH THE COUNCIL HAVE SUPERVISION.

COMMON LODGING HOUSES.

There are none of these as defined by the Statute. A large number of men come into the district to work on the Teign Valley Railway, and during this year, as in years previous, trouble has been experienced by the houses where they lodge being overcrowded. This especially applies to Ide. The difficulty has been to prove the overcrowding, as the householders always state that there is a less number of lodgers than that given by the neighbours who complain. Only one definite notice was given for overcrowding, though it is probable that it has existed in more houses. The work on the line is approaching completion, and then this matter will settle itself.

SLAUGHTER HOUSES.

The Local Government Board have granted Urban powers in this respect, and the model Bye-laws have been adopted with an addition preventing the premises being used, as has been found to be the case, as places for the deposition of lumber. They have just come into force, and now the necessary powers for the proper regulation of these places are in the hands of the Council.

Of those inspected during the year, some required lime-washing. It is obvious that a slaughter house may not be in such a state as to be dealt with as a nuisance, but it may be such that it is not compatible with its use as a slaughter house. These places cannot be kept too clean.

DAIRIES, COWSHEDS AND MILKSHOPS.

Only a small addition has been made to the register. In spite of the advertising of the order at various times, there are many who apparently are not aware of the provisions of the order and who plead ignorance when they are told that they must be registered. When such cases are discovered, notice is given

to register, and no prosecution has ever taken place. The number of names on the register is so small for the size of the district that there must be a large number who are in default in this matter. Unnecessary prosecutions are to be avoided, but successful proceedings in one case would do more to advertise that registration is necessary by law than any other method.

Most of the cowsheds in the district are merely milking sheds, and in such cases the provisions of the order are not rigidly enforced. The Dairies and Milkshops are generally satisfactory.

FACTORIES AND WORKSHOPS.

The Act of 1901 has added more in the way of Inspectorial work than it is possible to perform with the present staff of one Inspector without neglecting other work. The difficulty lies not so much in inspecting those places that are known, but the necessary enquiries to find out the workshops that are situate in the district. The definition of a workshop or workplace is very inclusive, and the district must contain a number of them.

The chief points to be reported upon are scheduled as follows:—

1. Sanitary condition of workshops and workplaces including :

(a) Cleanliness, airspace and ventilation.

These are satisfactory.

(b) Drainage of floors on which wet processes are carried on.

As far as I know there are none such in the district, except the cider factories, which are satisfactory.

(c) Provision of suitable and sufficient sanitary conveniences.

These are satisfactory.

2. Special sanitary regulations for bakehouses.

These have been under systematic inspection in years previous, and are generally satisfactory. The only doubtful points are the floors in some cases, and in some neglect of sufficient limewashing. There are no underground bakehouses.

3. Home work.

This very inclusive term apparently only applies to places where work is given out from factories and workshops to be done at home. The provisions of the Act with regard to this were extensively advertised, but no lists of outworkers were furnished to the Council, and no names have been forwarded by other authorities. I am not aware of any such work being done in the district.

4. Keeping lists of outworkers.

Following on the last paragraph, it follows that no list of outworkers is kept.

5. Keeping a register of workshops.

As directed by the Act, application was made to the Factory Inspector for the district for a copy of his register, as far as it applied to this district. The only place that was mentioned as containing workshops was Topsham, where there were 12. The bakehouses for the remainder of the district have been added, and any others that are known.

OFFENSIVE TRADES.

The premises of one gut cleaner have been inspected, and were found to be rather offensive. This particular tradesman states that he is leaving the district.

NUISANCES.

These are effectively dealt with, the proceedings in most cases being by statutory notice. The plan of informing parties that a nuisance exists and asking them to abate it does not work satisfactorily in the majority of cases, the necessary work being neglected, or insufficiently done. Owing to press of work, sometimes a considerable time elapses before they are followed up, but they are all dealt with in time. This delay would be materially shortened if the staff of one was increased. The County Council report always notes with disapproval the fact that there is only one Inspector for this district, the largest in Devon, with the exception of that which contains Dartmoor.

ADOPTIVE ACTS.

Both the Infectious Diseases Prevention Act and the Public Health Amendment Act as far as it relates to Rural Districts are in force, and are of great value.

FOOD AND DRUGS ACT.

As in previous years, no use is made of this Act.

This is a convenient place to refer to an outbreak of Lead Poisoning that was brought to my notice, occurring at Farringdon. Three labourers on a farm were badly effected, and two other persons showed signs of lead in their system. The probable cause of the poisoning was narrowed down to be either water or cider. Samples of both of these were analysed, but no lead was found in either. This was done at some time after the symptoms had appeared, and it is probably due to this that no lead was found. The only commodity that the three labourers partook freely of in common was the cider, and it being harvest time, when a considerable quantity is consumed, the probability is that this was the cause. I examined the cider press, but there was no lead in its structure. I think it was an accidental contamination affecting only one cask of cider, which was emptied before my analysis, and that which I examined was not that which caused the trouble.

INSPECTIONS.

I have made a total of 217 inspections during the year. In addition to those already detailed in this report, I have visited the Cider Factory at Whimple. Here the washings from the cider casks and from the floors passed along a ditch and discharged into a small stream, causing considerable nuisance. I recommended treatment by small quantities of lime to neutralise the acids in the liquor, and precipitate other bodies. The owner preferred, however, to treat by irrigation, which has up to the present proved satisfactory. The land is a very stiff clay, and the work will require careful supervision.

The brook at Lympstone came under notice. The outfall on the sea shore caused a nuisance by reason of the washing up of seaweed, where it lay about and decomposed. A small bank of drift sand had formed, which prevented the seaweed from flowing back. I recommended the removal of the bank of sand, and the construction of a groyne to prevent its re-formation. This has been done, but too recently to say whether it will prove successful or no.

Other matters that have been dealt with in consequence of my reports have been 17 insufficient privies, 11 insufficient drains, 14 insufficient water closets, 6 insufficient traps, 2 ashpits, 14

houses dirty, damp or otherwise insanitary, 1 dirty yard, 1 foul pigstye, and 1 house insufficiently lighted and ventilated. In addition houses where infectious diseases or phthisis have existed have been thoroughly cleansed.

A summary of the work of the Inspector of Nuisances is included as an Appendix.

I have the honour to be

Your obedient servant,

(Signed)

MARK FARRANT, JUNR., L.R.C.P., M.R.C.S., D.P.H.,

Fellow of the Royal Institute of Public Health, and of the Incorporated Society of Medical Officers of Health; Member of the Sanitary Institute.

RESULTS OF WATER ANALYSES

LOCALITY.	Total Solids.	Chlorine.	Free Ammonia.	Fixed Ammonia.	Nitrogen as Nitrates.	Oxygen absorbed.
Lympstone	58	7·2	·0048	·009	1·23	·14
Alphington	98	14·0	·008	·019	3·7	·37
„	132	17·2	·011	·013	3·9	·24
Pinhoe	80	5·1	·006	·0088	1·23	·09
Ide	122	14·2	·008	·024	3·6	·2
Woodbury	66	12	·000	·002	1·2	·1

SUMMARY OF WORK DONE BY THE INSPECTOR
OF NUISANCES.—1902.

No. of Complaints	...	...	...	...	69
„ Inspections	...	...	...	...	783
„ Re-Inspections	...	...	...	...	766
„ Notices Issued	..	...	...	..	171
„ Houses cleansed and limewashed	...	..			69
„ Drains (new) laid down	...	...			63
„ „ repaired	...	...	...	...	48
„ „ ventilated	..	...	...	...	41
„ Water Closets (new) provided		...	...		11
„ „ „ supplied with water		...	...		21
„ „ „ and Privies repaired		...	...		79
„ Earth Closets (new) provided	...	...			14
„ Privies converted into Pail Closets					32
„ Wells (new) sunk	...	...	...		4
„ „ cleansed and protected	...	...	...		11
„ Houses to which a public supply has been laid on	...	..	...	...	4
„ Houses condemned as unfit for human habitation	...	...	..	...	2
„ Buildings, dangerous, demolished	...	...			2
„ Other Nuisances abated	...	...	...		24
„ Bakehouses inspected	...	...	...		44
„ Slaughter Houses inspected		...	..		32
„ Dairies inspected	..	..	...	...	60
„ Proceedings taken before Justices and Orders obtained	...	...	...	...	2

During the past year the Sewerage systems throughout the district have, excepting the Alphington Sewer (now being dealt with), worked in a satisfactory manner; renewals of Sewers at

the higher and lower end of the village of Lymptone, and extensions at Otterton, Brampford Speke, Pinhoe, Kenn and Topsham have been made. The latter, just finished at the close of the year, is a lengthy and very important one, connecting an high-class locality, previously drained into cesspools, with the town's system of Sewerage; the abolition of the cesspools is a distinct gain to the Public Health. The Alphington Outfall Field has been doubled in area and the added portion laid out for broad irrigation, this enables the two sections to be worked alternately and ensures greater purification. The Water Supplies have also been inspected, and such necessary work as cleansing and protecting done where required.

E. H. QUICK, I.O.N.

JANUARY, 1903.



TABLE I.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1902 AND PREVIOUS YEARS.

S. THOMAS RURAL DISTRICT.

Year.	Population estimated to Middle of each Year.		Births.		Total Deaths Registered in the District.				Deaths in Public Institutions.	Deaths of non-residents registered in public institutions in the district.	Deaths of residents registered in public institutions beyond the district.	Nett Deaths at all Ages belonging to the District.	
	2	3	Number.	Rate.*	One Year of Age.		At all Ages.					Number.	Rate.*
					Number.	Rate.*	Number.	Rate.*					
1897	26,890	651	24.2	71	105	430	15.9	95	97	22	355	13.2	
1898	26,940	558	20.7	66	118	425	15.7	58	61	27	391	14.5	
1899	26,900	586	21.7	70	119	487	18.1	94	94	18	411	15.2	
1900	26,910	560	22.2	53	98	485	18.0	104	105	15	395	14.2	
1901	24,520	560	23.7	64	110	500	20.3	114	103	25	421	17.2	
Corrected Averages for years 1897-1901	24,800	587	23.7	65	110	481	18.9	93	92	21	395	15.8	
1902	24,410	557	22.8	48	86	406	16.6	130	124	30	312	12.7	

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

The figures for the years 1897-1900 are given as they have appeared in previous reports, but the averages are corrected in accordance with the over estimation of the population.

Total population of all ages, 24,520. Number of inhabited houses, 5,650. Average number of persons per house, 4.3. At Census of 1901. Area of District in acres (exclusive of area covered by water), 109,640.

Institutions within the District receiving Sick and Infirm Persons from outside the District:—Devon County Asylum, Starcross Idiot Asylum, City of Exeter Infectious Diseases Hospital, Heavitree Infectious Diseases Hospital Institutions outside the District receiving Sick and Infirm Persons from the District:—S. Thomas Union Workhouse, Royal Devon and Exeter Hospital.

TABLE II.

VITAL STATISTICS OF SEPARATE LOCALITIES IN 1902 AND PREVIOUS YEARS.
S. THOMAS RURAL DISTRICT.

NAME OF LOCALITIES.	1. CLYST.				2. EXE.				3. OTTER.				4. TEIGN.				5. TOPSHAM.			
	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
1892	7750	204	109	24	9855	222	95	21	2835	66	39	7	3600	96	58	9	2850	63	46	10
1893	7800	198	110	17	9855	160	129	21	2835	54	55	10	3600	84	59	15	2850	62	38	3
1894	7800	182	110	25	9840	182	128	21	2820	43	51	4	3600	108	56	9	2840	71	66	11
1895	7800	177	110	14	9850	182	115	21	2820	51	53	5	3600	86	60	9	2840	64	51	5
1896	7634	174	135	33	8133	172	117	22	2447	64	45	5	3526	98	74	8	2780	63	51	9
Corrected Averages of Years 1897 to 1901.	7658	187	117	22	8208	184	117	21	2547	55	48	6	3566	94	61	10	2790	65	50	7
1902	7620	180	112	17	8110	188	98	11	2400	48	27	4	3500	86	41	9	2780	55	34	8

TABLE III.
S. THOMAS RURAL DISTRICT.
Cases of Infectious Diseases notified during the Year, 1902.

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.				65 and upwards.	1	2	3	4	5	6	7	8	9	10	11	12
		Under 1.	1 to 5.	5 to 15.	15 to 25.														25 to 65.	H. Clyst.	Exe.	Otter.	Teign.	Topsham.
Small-pox ..																		
Cholera ..																		
Diphtheria ..	4		3	1			2	1				1					1	
Membranous croup ..																		
Erysipelas ..	11		1	8	2		2	4	3									
Scarlet fever ..	85	26	48	8	3		37	37	1	3		7				29	2	2
Typhus fever ..																		
Enteric fever ..	12		4	6	2		5	4	1	2						1	1	
Relapsing fever ..																		
Continued fever ..																		
Puerperal fever ..	2				2		1		1									
Plague ..																		
Totals ..	114	26	56	23	9		47	46	4	9	8	31	3	2		38	3	2

State the name of the isolation hospital, if any, used by the sick of the district. Mark (H) the locality in which it is situated, or if not within the district, state where it is situated, and in what district.—City of Exeter Sanatorium, at Pinhoe.

TABLE IV.

S. THOMAS RURAL DISTRICT.

Causes of, and Ages at, Death during Year 1902.

Causes of Death	Deaths in whole District at subjoined Ages.							Deaths in Localities (At all Ages).					Deaths in Public Institutions.
	All ages	Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upw'rds	Clyst	Exe	Otter	Teign	Tops'm	
Small-pox ..													1
Measles ..	1	1							1				
Scarlet fever ..	1			1				1					10
Whooping- cough ..													
Diphtheria and membranous croup ..													3
Croup ..													
Fever { Typhus													
{ Enteric	1				1						1		4
{ Other													
{ contin'd													
Epidemic influenza ..	7	3				1	3	5	1			1	
Diarrhoea ..													1
Enteritis ..	4	1		1		1	1		2	2			
Puerperal fever	2					2		1			1		1
Erysipelas ..													
Other septic diseases ..	3			1		1	1		2			1	1
Phthisis ..	21				4	16	1	7	8	3	2	1	13
Other tuber- cular diseases.	9		2	3		4		2	5	2			4
Cancer, malign- ant disease.	20					9	11	11	4	2	1	2	2
Bronchitis ..	25	4	2			4	15	11	8	1	5	4	4
Pneumonia ..	22	7	4	1		6	4	6	6		6	4	12
Pleurisy ..	3				1	1	1		1		1	1	
Other diseases of Respiratory organs. ..	8	3	1			2	2	4	2		1	1	1
Alcoholism ..													
Cirrhosis of liver	3			1		1	1	1	2				1
Premature birth	8	8						1		1	2	4	
Diseases and accidents of parturition.	10	7				3		2	3	1	3	1	
Heart diseases	46			2	3	11	30	12	16	3	8	7	7
Accidents ..	9	1			2	4	2	3	3	1	1	1	
Suicides ..	1						1					1	
Old age ..	30						30	12	9	3	3	3	11
Diseases of nervous system	24	1		1		8	14	9	8	2	2	3	45
Convulsions ..	9	7	2					3	3		1	2	
Kidney Diseases	15	1			1	9	4	9	4	2			7
All other causes	30	5		1	3	5	16	12	10	4	3	1	2
All causes ..	312	49	11	12	15	88	137	112	98	27	41	34	130

In recording the fact under the various headings of Tables I, II, III, and IV., attention has been given to the notes on the Tables.
 MARK FARRANT, Junr., Medical Officer of Health. January, 1903.

