Contributors

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Barnsley.

REPORT

ON THE

SANITARY CONDITION of BARNSLEY

AND THE

WORK OF THE ISOLATION HOSPITAL

IN 1913,

SUBMITTED TO THE TOWN COUNCIL

BY

F. J. SADLER, M.A., D.M., D.P.H.,

OXON.,

MEDICAL OFFICER OF MEALTM,

JUNE, 1914.

BARNSLEY : J. E. Vero Ltd., Printers, Market Street.

1914.

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BOROUGH OF BARNSLEY.

REPORT

OF THE

Medical Officer of Health

FOR THE YEAR 1913.

To the Sanitary Committee of the Town Council.

GENTLEMEN,

In the matter of weather, 1913 proved to be a year Meteorological when everything was a little below the average. There were seven fewer hot days than the average for 40 years; 20 fewer days of frost; 12 fewer days on which rain fell, and $1\frac{1}{2}$ inches less than the average amount of rain.

On the other hand, days of moderate warmth were 29 above the average, so that on the whole the year was milder than usual.

The rainfall in February was unusually small, '65 inches, whereas in March, when dry, windy weather would have been acceptable, rain fell on 23 days out of 31, and amounted to $3\frac{1}{2}$ inches.

Towards the end of May we had some hot weather, which continued more or less throughout June, but July, as a whole, was undoubtedly cooler than the average, and August also, so that the 4ft. earth thermometer never registered more than 54'5°. As the temperature at this depth is a fairly correct index of the balance of heat given out and received by the earth from the sun, and the years in which the 4ft. earth thermometer does not reach 56° are few and far between, it is clear that in 1913 there was a distinct deficiency of solar heat in this district.

The meteorological curiosity of the year was a fall of 2 inches of rain in Barnsley in 24 hours, between 9 a.m. on

September 17th and 9 a.m. on the following day. There has been no such downfall in Barnsley for the last 15 years, at all events.

The rather moderate rainfall in June, July and August seems to have produced conditions exceptionally favourable to the production of flies, and although the 4ft. earth thermometer did not reach 56° during any of these months, yet there was a considerable prevalence of Diarrhœa, with 46 deaths in the months of August and September alone.

The inclement weather of the first 4 months of the year also seems to have been responsible for some increase over the usual number of deaths from Respiratory Diseases, and these two causes seem to have been responsible for the increase in our nett death rate over that of the previous year.

Statistics

The population at the Census of 1911 having been 50,614 and my estimation of the population in July of 1912 51,800, I thought last January it would be wiser to count on an increase of 1,000 in the population rather than one of 1,500, and made my estimate 52,500 as being the population of the Borough at the middle of 1913, and so slightly under-estimate the population rather than over-estimate it, lest a possible diminution of the rate of increase of population should give us too low a death rate and birth rate. On this estimate of the population the following statistics are based.

During the year 913 deaths and 1,608 births were registered in the Borough of Barnsley, but certain corrections have to be made to both figures. Five of the births—all of them illegitimate—properly belong to other Districts, while one illegitimate birth registered outside the Borough belongs to Barnsley. Five births, therefore, have to be deducted, and 1 added, making a nett deduction of 4, and, therefore, during the year 1,604 births are properly credited to Barnsley, giving a birth rate of 30'55; the average for the previous 10 years being 33'84, and the 1912 birth rate being 30'38, so that although we are below the average of the 10 years there is a slight increase as compared with the previous year.

Of the 913 deaths registered in the Borough 176 were in public institutions, 90 of these being deaths of residents and 86 of non-residents, while 32 deaths of residents in the Borough occurred outside the District. The 86 non-residents registered in Barnsley have to be deducted, the 32 registered outside at other places have to be added, a nett deduction of 54. The nett deaths belonging to the Borough are therefore 859, giving a death rate of 16'36, compared with 17'89 for the previous 10 years, and 14'46 for 1912. The death rate, consequently, is below the average for the 10 years, but 2 per thousand more than in the previous year.

Among infants or children under 1 year 237 deaths were Infant Mortality registered, being 11 less than the average for the previous 10 years, but 79 more than in 1912. From these 237 deaths, two deaths of Infants who were not born in the Borough have to be deducted, leaving the nett Infant deaths 235. As the births during the year numbered 1604, the Infant mortality or deaths of Infants per thousand births is 146 50, the figure appearing in Table 1 being calculated on the gross number of Infant deaths registered.

The two main factors in this Infant mortality were Diarrhœa, which caused 46 deaths, and Premature Birth, which was accountable for 41 deaths. Bronchitis and Pneumonia caused 47 deaths, and Wasting Diseases 26 deaths.

All other causes had comparatively trivial effect on the Infant mortality.

The deaths of children under 5 years were 41 per cent. of the total deaths, as compared with a 10 year's average of 43.72 per cent. and the 33.42 per cent. in 1912, this deterioration being apparently almost wholly due to the excess of Infant deaths.

The 7 principal Zymotic Diseases—Small-pox, Measles, Infectious Scarlet Fever, Diphtheria, Whooping Cough, Typhoid, and Diseases Diarrhœa caused 108 deaths in 1913, as compared with the 10 years' average 146'9, and 76 in 1912.

Measles caused 22 deaths (17), Scarlet Fever 7 (10), Diphtheria 7 (7), Whooping Cough 6 (24), Enteric Fever 1 (5), and Diarrhœa 65 (13).

(1912 figures in brackets).

Scarlet Fever, Whooping Cough, and Enteric Fever, therefore, show a diminution even as compared with 1912, while Measles and Diarrhœa are responsible for more than the whole increase.

The Zymotic death rate for the year is 2'06, compared with the 10 years' average of 3'19, and 1'48 in 1912.

Small-pox failed to make any appearance in Barnsley Small-pox during 1913. The precautions taken in towns where the disease did appear seem to have been effective in preventing the spread of the disease to other towns.

Of Scarlet Fever 72 cases only were notified, as compared with 170 in 1912, and a 10 years' average of 179 cases. This figure is somewhat of a surprise to me, because it seemed likely in 1912 that we had an increasing susceptible population liable to Scarlet Fever, and that the number of cases was likely to increase during 1913 to somewhere between 200 and 300 cases. Further, the small number of cases in Barnsley is the more surprising in that there have been widespread epidemics in neighbouring districts which use the Kendray Hospital, and, incidentally, use Barnsley also as a market town, and in these districts the overlooked case was a very serious factor in the epidemics, as was shown by the number of children who were sent to the Kendray Hospital in the later stages of the disease, so that it is somewhat hard to understand why Barnsley was fortunate enough to escape. Perhaps the high percentage of cases isolated in the Kendray Hospital from Barnsley has something to do with this diminished prevalence.

In Barnsley, at all events, the Kendray Hospital is not on the whole unpopular, and I think there is very little intentional concealment of the disease.

Enteric Fever

Typhoid Fever again showed a satisfactory diminution in the number of cases notified, the figures falling from 29 cases in 1912 to 14 in 1913. The cool Autumn weather may have had something to do with this, although the number of Diarrhœa deaths led me to expect that there might be also a serious amount of Typhoid Fever in the autumn.

During the past 10 years the high Diarrhœa death rate in August and September has nearly always corresponded with a high prevalence of Typhoid Fever in October and November.

I sincerely hope that your efforts in the reduction of Privy Ashpits in Barnsley is also a considerable factor in this diminution. If the experience of other towns is anything to go by, the diminished number of Privy Ashpits has always been followed by a diminution in the amount of Typhoid Fever, and I hope that in coming years there will be even more satisfactory reports to make in this matter than even in the present year.

Diphtheria

Once more there was an increase in the amount of Diphtheria cases notified during 1913, and for the first time since the Notification Acts came into force in Barnsley more cases of Diphtheria were notified than cases of Scarlet Fever. As compared with 10 years ago, the attack rate per thousand persons living has slightly increased, but the virulence of the

disease appears to have slightly diminished, for a larger number of cases produced two fewer deaths. Possibly here again the opening of the Kendray Hospital for cases of Diphtheria has resulted in the saving of some lives.

There was certainly no School epidemic during the year, though the children attending Racecommon Road School seem to have been slightly more liable to attack than children attending other schools, and in the case of Diphtheria, as in the case of Scarlet Fever, we were not able to trace any connection with the milk supply.

Nineteen cases of Erysipelas were reported during the Erysipelas year, compared with the 10 years' average of 28, and 29 cases for 1912. Two of the cases proved fatal, but nothing worthy of special record was found in connection with any of the attacked houses.

No case of Puerperal Fever was reported during the year. Puerperal Fever

In all cases of Notifiable Infectious Diseases each case is Other Notifiable visited as soon as possible after the receipt of the Notification, Diseases and the sanitary condition of the premises is investigated. The milk supply, the amount of bedroom accommodation, and the number of occupants of the bedrooms are ascertained, and the parents or friends of patients suffering from Scarlet Fever, Diphtheria, or Typhoid Fever are urged to take advantage of isolation in the Kendray Hospital. In cases of Scarlet Fever and Diphtheria, any School attended by the children from the infected house is warned of the danger of infection, and to exclude such children for a specified time. When the patient has been removed to the Hospital, or, if kept at home, has sufficiently recovered, the house is disinfected by a spray of formalin solution, while any clothes or bedding are disinfected by steam in a "Thresh " Steam Disinfector.

Not a single case of Poliomyelitis or of Cerebro-Spinal Meningitis was notified during the year.

Of the principal Zymotic Diseases which are not notifiable in Barnsley-namely: Measles, Whooping Cough, and Diarrhœa -Diarrhœa caused 65 deaths, Measles 22 deaths, and Whooping Cough only 6 deaths, as compared with 13 deaths from Diarrhœa, 17 from Measles, and 24 from Whooping Cough in 1912.

Although the 4ft. earth thermometer never reached 56° Diarrhea Fahrenheit throughout the year, there was a very considerable number of deaths from Diarrhœa in August and September. Fifty-five of the whole number of deaths occurred in August,

September, and October, 3 being registered in the first half of August, 17 in the second half of August, 16 in the first half of September, 10 in the second half of September, 7 in the first half of October, and 2 in the second half of October.

The great prevalence of the disease was, therefore, from the middle of August to the middle of October. Whether the deficient rainfall in June, July, and August was in any way responsible for the epidemic I should not like to say, but I have noticed in the past that heavy rainfall in August often checks an epidemic of Diarrhœa, even when the other conditions are favourable for a big epidemic.

It is at least suggestive that after the extremely heavy downpour of rain on the 18th September, followed by a rainy beginning of October, the epidemic began to subside.

We made every effort to get manure heaps cleared away week by week, but I fear that there will always be some members of the public who will consider this precaution a fad of the Medical Officer of Health, and will passively resist a measure which might be the means of saving many lives could it be efficiently carried out.

I am almost forced to the conclusion that the excessive Diarrhœa death rate of Barnsley is due to flies and dirt, including under the heading "dirt" privy ashpits, accumulations of manure, and the rather dirty habits of a certain section of the population.

I make this last statement after careful consideration; for, when visiting houses which structurally seemed unfit for human habitation, just one or two of these houses were kept as clean as the proverbial new pin, and the rest were very decidedly not kept clean. The clean houses, though structurally unfit, by reason of their cleanliness seemed quite possible places for poor elderly couples to live in, whereas those which were not kept clean were obviously unfit for human habitation.

Some houses, therefore, in Barnsley, one must conclude, are rendered unfit for human habitation by reason of the personal lack of cleanliness on the part of their tenants.

It is difficult, otherwise, to explain why a place like Brighouse, with a population of 21,000—a third of that of Barnsley—should only have had 3 deaths from Diarrhœal diseases during 1913, whereas Barnsley had 65.

The Diarrhœa death rate of Barnsley is 1'24 per thousand persons living. While the whole Zymotic death rate of Leeds is only 1'27 per thousand persons living, and that for Brighouse '42, Leeds, after Barnsley, has the highest Zymotic death rate of the big towns in the West Riding.

I emphasise this point so that the public of Barnsley may become aware how urgently necessary it is that your Committee should take the action they propose taking in regard to the Privy Ashpits of the town. I fear it is beyond the powers of any Sanitary Committee to make dirty people clean, or even desire to be clean, but over privies and manure heaps the Sanitary Committee has power, and this factor in our high Diarrhœa death rate is the only one over which you have control, and is, therefore, the point at which you must make your effort to improve the Infant Mortality and Diarrhœa death rate of Barnsley.

The Local Government Board, in March, 1914, asked for Measles a special report on the deaths from Measles registered in January, 1914. From my records it was clear that January was only the climax of an epidemic which started in October, 1913, and lasted till March, 1914. I, therefore, prepared the following report on the whole epidemic, and as the first part of it occurred in 1913, I include it in this report on the year 1913.

COUNTY BOROUGH OF BARNSLEY.

REPORT ON MEASLES EPIDEMIC, 1913-1914.

To the Chairman and Members of the Sanitary Committee.

GENTLEMEN,

In October there began a serious epidemic of Measles which lasted for six months, reaching its height in January, and beginning to subside in February and March, 1914. During those six months no less than 56 deaths were caused by Measles, of which 10 were attributed to Measles only and the remainder to Measles and some complication, the complication being in 38 cases Broncho-Pneumonia, 7 cases true Pneumonia, 1 case Whooping Cough and Broncho-Pneumonia. Four of the deaths were registered in October, 4 in November, 8 in December, 24 in January, 1914, 10 in February, and 6 in March.

Throughout the epidemic the fatality fell with the greatest severity on the South East Ward, in which there were altogether 33 deaths from Measles, in the North Ward there were 8 deaths, in the South Ward 6 deaths, in the East Ward and the South West Ward there were 4 deaths each, and in the West Ward 1 death.

Divided into age periods, of the 56 deaths 17 were among

Infants, 18 children between 1-2 years, 7 children between 2-3 years, 9 children between 3-4 years, 2 children between 4-5 years, 2 children between 5-6 years, and 1 child between 6-7 years.

Twenty-six of the Children who died were boys and 30 were girls. Every single one of the deaths occurred in the houses for which the rates are compounded.

As might be expected, the majority of the parents were workers in the Coal Mines, either as Coal Getters, Trammers, or Labourers. The exceptions were: Builder's Labourer 1, Provision Dealer's Traveller 1, Iron Moulder 1, Bottle Blowers 6, Coal Carter 1, Hawkers 2, Platelayer 1, Fruit Salesman 1, Pork Butcher 1, Gardener 1, Painter 1.

Apart from the information given me by your Lady Visitor that Measles were beginning to be prevalent in the houses she visited, the earliest intimation of the epidemic came to me from the Doncaster Road Schools, where 51 Infants of the 383 on the books were reported to be actually suffering from Measles on the 27th October, and I advised you to close the Infants' School from the 28th October to the 26th November, a period of 4 weeks. Subsequently, St. George's Infants' School was also closed for 4 weeks from the 17th December to the 17th January, and the babies' class at Grove Street for the same period.

There seems to be consensus of opinion that very little can be done to check a Measles epidemic when the infection is particularly virulent by School closure, but in the case of children under 6 years (since under that age the infection of Measles is specially dangerous) it hardly seems fair that they should run the risk of catching it at School in addition to their chances of catching it in their homes and the homes of their friends. Therefore, my policy continues to be to close an Infant's School so soon as it is reported to me that 10 per cent. of the children on the rolls are actually suffering from Measles.

During the seven months ending April 30th we have had at the Kendray Hospital frequent invasions of Measles in our Scarlet Fever Ward, and we had in all 50 cases of Measles among children under 5 years, with 2 deaths of children already seriously weakened by Scarlet Fever. It is, therefore, probable that for every Measles death there are about 25 cases which do not die, possibly more, so that 56 deaths from Measles represent 1,000 or 2,000 cases.

As I have many times reported to you, the great difficulty about controlling an epidemic of Measles is that the children are infectious for three or four days before they develop the characteristic rash. Therefore, it is impossible by early notification to prevent the disease spreading. Before a case could possibly be notified, it would probably have done all the mischief of which it was capable. The impossibility of controlling Measles seems to be so fully recognised that at a meeting of School Medical Officers, when the question was discussed, the Medical Officers of certain Secondary Schools went so far as to say that it would be better if children were allowed to catch Measles between the ages of 7 and 10, apparently in order that the Medical Officers of the said Secondary Schools might be saved the bother of a Measles epidemic. If Measles is so impossible to control even in a big public school, with a highly expert Medical Officer with all the resources of the discipline of such a school at his command, it seems almost hopeless that we should expect to be able to control the spread of Measles in Barnsley.

From the statistics with which I began this report three things stand out very clearly. The danger age is really below 4 years, only 5 of the 56 deaths being in children more than 4 years old. Secondly, the most dangerous age of all is under 2 years, 35 of the deaths having occurred under that age. Thirdly, assuming that where no complication is mentioned the children died from acute Measles poisoning, only 1 out of 5 of the deaths were due to this cause. Only 10 of the whole number of deaths are attributed to Measles only. In the 46 other cases Pneumonia or Broncho-Pneumonia were contributing causes.

This fits in entirely with my experience of the disease at the Kendray Hospital and elsewhere. On the first two days of the rash a certain small proportion of children pass through a very dangerous time, when their symptoms are those associated with the phenomenon of anaphylaxis; that is, the breathing becomes extremely rapid (I have seen it as high as 90 respirations per minute in a case which was fortunate to survive). The pulse also becomes exceedingly rapid and rather feeble—sometimes alarmingly feeble, so much so, that the use of stimulants is urgently necessary; the most satisfactory of stimulants being the hypodermic injection of minute doses of strychnine. This stage lasts about 12 hours, and if the patient survives it, the improvement then becomes very rapid. During these two days, and the following three or four, the cough in a bad case of Measles is very troublesome, and even with the most careful nursing Broncho-Pneumonia may make its appearance, and with careless nursing or exposure of the patient to cold this complication is likely to be much more common, and is very dangerous, particularly in small children.

We do, as a matter of fact, leave a leaflet pointing out the dangers of Measles at every house in Barnsley where a child is born, saving only those houses whose occupiers pay the rates themselves, and, therefore, presumably have sufficient means and intelligence to employ a medical man if their children happen to suffer from Measles.

The leaflet we distribute is as follows :---

"BARNSLEY URBAN SANITARY AUTHORITY." "MEASLES."

" Measles neglected is a very dangerous disease.

- "During the last ten years Measles has been the cause of more deaths in Barnsley than Small-pox, Scarlet Fever, and Diphtheria put together.
- "On the average during the past ten years 33 children have died of Measles each year in Barnsley.
- "A large majority of these children might have been saved by proper care.
- "Nearly all these deaths were caused by some form of Inflammation of the Lungs following Measles.
- "This means that it is very dangerous to let children recovering from Measles catch cold.
- "All children suffering from Measles, however mild, should be kept in bed for one week, and in the house for another week.
- "Get medical assistance early rather than late.
- "Don't let children recovering from Measles run about the floor with bare feet.

"Don't let them sit on the doorstep in their nightgowns.

"F. J. SADLER,

"Medical Officer of Health,

"August, 1909."

Beyond this we cannot at present go, though possibly, in the near future, I, or my successor, may have recommendations to make to you on this subject.

I am, Gentlemen,

Your obedient Servant, F. J. SADLER. There was no very great prevalence of Whooping Cough Whooping during 1913. Six deaths, or '12 per thousand persons living, Cough were caused by this disease, two deaths occurring in the first quarter of the year, three in the third, and one in the fourth quarter.

As the average deaths from Whooping Cough in the past 10 years is 21, six deaths is a fairly satisfactory figure.

Influenza caused 30 deaths during the year, there being a Influenza very serious prevalence of this disease in the first three months of the year, the greatest number of deaths in any one month being 11 in February, but even April, May, and June were not without deaths due to this cause.

Pulmonary Tuberculosis was notified in 109 cases—63 Pulmonary males, 46 females. To these have to be added 64 cases found Tuberculosis in Schools, and notified for the first time during the year. There were also 4 cases of Non-Pulmonary Tuberculosis. There were, however, only 41 deaths from this disease registered during the year, giving a death rate of '78 per thousand persons living, a figure which compares very favourably with other towns in the West Riding.

The greatest number of deaths from this disease in 1913 was between the ages of 45 and 65. The age periods 30 to 45 years and 15 to 25 years provide a number of deaths very nearly as large.

The total Respiratory death rate 3'58 was higher than in Respiratory 1912, as indeed was the Phthisis death rate, the figures for Diseases the previous year being Phthisis '54 and total Respiratory 2'88.

The Open-air School for tuberculous children was kept Open-air School open throughout the year with satisfactory results.

The Lady Visitor, Mrs. Malkin, reports on her work as follows:---

DECEMBER, 1913, YEARLY REPORT.

		Houses Visited.		Revisits.		ldren attended Medical Man.
1913		1,450		304		156
1912		1,410		278		122
Di	ed befo Visit.	re Rem before			vice oted.	Advice refused.
1913	126	9	2	1,0	58	18
1912	80	10	3	1,0	43	54
		Breast Feeding.		Bottle Fed.		Improper Feeding.
1913		966		240		25
1912		1,000		182		47

LEAFLETS.—" How to bring up children," "Proportions of milk and water suitable for a baby's meal," "The dangers of Measles and how to avoid them," "Precautions against Epidemic Diarrhœa," distributed in every home.

"Improper Feeding," great improvement.

Measles, with complications such as Bronchitis and Broncho-Pneumonia, caused many deaths in the last quarter of the year.

FRANCES MARY MALKIN.

The adoption of the Notification of Births Act did not take place till 1914, and, therefore, does not fall to be discussed in this report.

During 1913, 400 Privies were reconstructed and converted into Water Closets, and 100 additional Water Closets were provided for old property during the year.

The Closet accommodation of the Borough at the end of 1913 was as follows :---

	1913.	1912.	1911.	1910.
Privies with open Middens	110	134	143	257
Privies with covered Middens	2,260	2,492	2,741	2,924
Water Closets	3,080	2,609	2,197	1,807
Waste-water closets	2,087	2,190	2,190	2,220

Milk Supply

Fourteen Cowkeepers are registered in the District, and also sell milk. There are also 35 Purveyors of Milk who do not keep cows.

There are 18 Cowsheds in which are housed, approximately, 85 cows. Twenty-nine inspections were made of the Cowsheds during 1913.

Under the Public Health (Milk and Cream) Regulations, 1912, the following action was taken during 1913:—

COUNTY BOROUGH OF BARNSLEY.

ANNUAL REPORT OF THE ADMINISTRATION OF THE PUBLIC HEALTH (MILK AND CREAM) REGULATIONS, 1912, DURING 1913.

MILK AND CREAM NOT SOLD AS PRESERVED CREAM.

During 1913, 48 samples of new milk were taken and examined by the Borough Analyst. In none of these was a preservative reported as being present. Six of the samples were found to be deficient in various respects, as reported elsewhere under the Food and Drugs Act.

Privies and Water Closets Two samples of cream sold as preserved cream were taken and submitted for analysis to ascertain if the statements on the label as to a preservative were correct. Correct statements were made in both cases.

Determinations were made of milk fat in cream sold as preserved cream in two cases. In both the amount was above 35 per cent.

F. J. SADLER, M.D., D.P.H.,

Medical Officer of Health.

1. Milk and Cream not sold as Preserved Cream.

	(a). Number of samples examined for the presence of a Preservative.	(b). Number in which a Preservative was reported to be present.				
Milk	48	None				
CREAM	None	None				

2. Cream sold as Preserved Cream.

(a) Instances in which samples have been submitted for analysis to ascertain if the statements on the label as to preservatives were correct.

(I).	Correct statements made	 2
(11).	Statements incorrect	 0

Total... 2

(b) Determinations made of milk fat in cream sold as preserved cream.

(I).	Above	35	per	cent.			2	
(11).	Below	35	per	cent.			0	
					Tot	al	2	

- (c) Instances where (apart from analysis) the requirements as to labelling or declaration of preserved cream in Article V. (1) and the proviso in Article V. (2) of the Regulations have not been observed.
 —None.
- (d) Particulars of each case in which the Regulations. have not been complied with and action taken. None.

15

3. Thickening Substances. Any evidence of their addition to Cream or to Preserved Cream.

Action taken where found.-None.

4. Other observations, if any.

F. J. SADLER.

The following is the statistical report of the Sanitary Inspector on the action taken under the Food and Drugs Act :—

FOOD AND DRUGS.

Of the 134 samples analysed there were :---

New Mil	k		4	8	Compound Liquorice	
Machine	Skimn	ned Mill	k	6	Powder	2
Butter			1	7	Sweet Spirits of Nitre	2
Lard				9	Paregoric	4
Cheese				2	Glycerine	5
Jam				2	Tincture of Rhubarb	1
Castor O	il			4	Camphorated Oil	4
'Tea				5	Whisky	5
Sugar				2	Rum	3
Coffee				1	Gin	3
Cocoa				2	Condensed Milk	2
Mustard				1	Cream	2
Pepper				2	and the second second second	
					Tota	al 134

With the result that :---

New Milk		9 samples were of superior quality.
		20 samples were genuine.
,,		13 samples were of fair quality.
,,		6 samples were slightly deficient in
		milk fat.
		4 samples were found deficient in
		milk fat, and the Vendors were
		fined 5/- and costs respectively.
		Deficiency, 8'3, 7'83, 7'97, and
		8'6 per cent.
,		2 samples were found deficient in
		milk fat, and the Vendor was
		warned. Deficiency, 8 [°] 6 and
		8.62 per cent.
Machine Sk	immed Mill	k 6 samples all of which were genuine.
Butter		17 ,, ,, ,,
Lard		9
Cheese		2 ,, ,, ,, ,,
Jam		2 ,, ,, ,

Castor Oil		4	samples all of which were genuine.
'Tea		5	· · · · · · · · · · · · · · · · · · ·
Sugar		2	
Coffee		1	11 11 11
Cocoa		2	., ., .,
Mustard		1	· · · · · · · · · · · · · · · · · · ·
Pepper		2	11 11 11
Comp'nd Liquorice Pov	vder	2	samples which were prepared in
			accordance with the British
			Pharmacopœia.
Sweet Spirits of Nitre		2	samples which were genuine.
Paregoric		4	
Glycerine		5	11 22 23
Tincture of Rhubarb		1	" prepared in accordance
			with the British Pharmacopœia.
Camphorated Oil		1	sample deficient in camphor 33'3
			per cent. The Vendor was sum-
			moned and fined 5/- and costs.
,, ,,		3	samples which were genuine.
Whisky			samples which complied with the
			standard.
,,		1	sample contained an excess of
			water 4'3 per cent. The Vendor
			was warned.
Rum		3	samples which complied with the
			standard.
Gin		3	samples which complied with the
			standard.
Condensed Milk		2	samples which were genuine.
Cream		2	samples which were genuine.
			Both samples contained a Boron
			preservative which complied
			with the statement on the
			label.

Offensive Trades were carried on in 7 places in the Borough, Offensive and 23 inspections were made in the year of these places. Trades They were found to be in a satisfactory condition. 1, Knacker's Yard has been inspected 4 times, and found to be satisfactory.

Twenty-seven seizures of unsound food were made (beef, mutton, and offal), the quantity amounting to $263\frac{1}{2}$ stones.

As attention was called by the owners of this food in every case to its condition, no prosecution was undertaken.

No Canal Boats are registered in your District but 61 inspections were made of Canal Boats coming into the District from outside, and their general condition was found to be fairly satisfactory. No legal proceedings were taken. Nuisances

4,487 inspections were made in 1913, 38 informal notices were served and complied with, 533 statutory notices were served and complied with in 485 cases. The total number of nuisances "in hand" at the close of 1912 was 37, and at the close of 1913 48. The total number of nuisances reported during 1913 was 453, of which 405 were abated during the year, and legal proceedings were taken in 3 cases.

Slaughterhouses

There are 21 Slaughter-houses in the District, of which 16 are registered and 5 licensed. They are all in private hands, and some of the older ones are not in a very satisfactory condition. In some cases the floor is constituted of stone slabs, and though kept scrupulously clean, the crevices between the stones, in my opinion, make this kind of floor quite unsuitable for Slaughter-houses, but I am not prepared to say that any one of these Slaughter-houses is in such a condition as to be a nuisance or a danger to public health.

Factories and Workshops Twenty-seven inspections of Factories, 203 of Workshops, and 32 of Work Places were made during 1913. Eleven written notices were served in connection with the Workshops. No legal proceedings were taken.

The following defects were found and remedied in each case:—In 14 cases want of cleanliness; in 5 cases want of ventilation; 3 cases overcrowding; other nuisances, 6; sanitary accommodation unsuitable or defective, 7 cases; sanitary accommodation not provided for separate sexes, 2.

Twelve lists of outworkers were received from 6 employers.

Water Supply

The Water Supply continues satisfactory from your reservoirs at Ingbirchworth and Midhope.

The tabular statement of action taken under the Housing. Regulations, 1910, is as follows :—

Housing

Number of dwelling-houses inspected under and for the purposes of Section 17 of the Act of 1909 ... 4,032.
Houses found satisfactory on inspection ... 3,971
Number of dwelling-houses which on inspection

nu				0						spection	
	were	con	side	red to	be in	a	state	e so (dange	erous or	
	injur	ious	to	healtl	ı as	to	be	unfit	for	human	
	habit	atio	n								

Number of representations made to the Town Council with a view to the making of Closing Orders

Number of Closing Orders made ...

19

19

19

...

Houses closed as unfit for habitation after Closing Orders were made	19
Number of dwelling-houses the defects in which were remedied without the making of Closing Orders	0
Number of dwelling-houses which after the making of Closing Orders were put into a fit state for human habitation	2
General character of the defects found to exist-	

Excessive dampness. General dilapidation.

Want of sufficient ventilation and of air space surrounding the house.

I consider there is very little doubt that the population of Barnsley continues to increase almost in the ratio of the decennial increase between the Census of 1901 and the Census of 1911. Therefore, I think we must regard with some concern the figures issued by the Borough Surveyor, in which the number of new houses, villas, and cottages, built for residential purposes, has decreased from 286 in 1909 to 199 in 1913. There has been, undoubtedly, a scarcity of suitable houses of the cottage type during 1913, and there is some evidence of overcrowding.

During 1913, 255 houses were visited on account of the presence therein of Infectious Disease or Tuberculosis. In every case the number of occupants, including the number of children, was ascertained. Of the houses with two bedrooms, I count those overcrowded with 7 or more occupants. In such two-bedroomed houses 11 persons were found once, 9 being children; 10 persons were found to be occupying two bedrooms on two occasions, 5 of the 10 being children; 9 occupants of two bedrooms 8 times; 8 occupants 3 times; and 7 occupants 5 times. In all, 19 cases of overcrowding in 255 houses, or 7'4 per cent.

In houses with three bedrooms, when there are 8 occupants, I consider the house overcrowded. In houses with 3 bedrooms 11 occupants were found once; 10 occupants once; 9 occupants 5 times; and 8 occupants 8 times; or 15 cases out of the 255, 5'8 per cent., total 13'3 per cent.

Out of the houses selected in this way by infectious diseases 13 per cent were overcrowded, and the overcrowding was serious in rather over 4 per cent. of the cases. The administrative difficulty is this, that where there are no 4 ouses of suitable size to let it is very difficult to take proceedings for overcrowding, because it is difficult to know where or how the overcrowding can be abated.

There seem to have been two main reasons for the slackness in building operations during 1913. The first was the dearness of money. In this District the most usual method of building cottage houses is for a speculative builder to buy a building site, and, with money borrowed on mortgage, to erect cottage houses on the site so bought, selling the property so soon as the houses are built and occupied. The builder is satisfied if he makes a profit of £10 or £15 per house built, and if he succeeds in selling his property, he buys a fresh site, mortgages once more, and repeats the operation. If for any reason the builder fails to sell the block of houses that he has built, his money is tied up, and he cannot proceed with further building operations till he has successfully sold his houses.

If I am correctly informed that this is the general procedure in this District, it is clear that when money is at 5 per cent. the margin of possible profit is seriously diminished. Therefore, a high Bank-rate is a serious deterrent to building operations.

Secondly, a case was decided in the Courts in 1912 where the profits of a builder of houses were taxed for increment duty, and, whether rightly or wrongly, I believe that a good many builders felt some insecurity as to whether they would be able to retain the whole of the profits of their enterprise, and where there is any such uncertainty a small capitalist clearly cannot afford to risk his money in building operations unless money is cheap.

Any possible increase of overcrowding in Barnsley will require to be very carefully watched, for it might even be necessary for the Corporation to consider the possibility of building houses themselves under the Housing and Town Planning Act. It is, however, quite possible that a return of cheaper money may produce an automatic increase in the amount of building operations in Barnsley.

Although it is regrettable that our death-rate and Infant Mortality and Zymotic death-rate show an increase on the previous year, Barnsley has not come out so badly in the incidence of Notifiable Infectious Diseases. The attack rate of Scarlet Fever in the 78 County Boroughs is 4'29 per thousand persons living. In Barnsley in 1913 it was 1'37, only 10 County Boroughs having a lower Scarlet Fever attack rate. In Diphtheria the aggregate attack rate was 1'49; that of Barnsley 1'41. In the case of Diphtheria, therefore, Barnsley is very considerably higher up the list.

In Typhoid Fever the aggregate attack rate is 0'25 perthousand persons living, and Barnsley is 27th in the list with 0'25 per thousand persons living attacked by Typhoid.

In Erysipelas the aggregate attack rate is '73. The attack rate in Barnsley was '37, in this disease Barnsley being 10 from the bottom, so that in the matter of Notifiable Infectious Diseases Barnsley holds a fairly satisfactory position, and if some of the features of 1913 spur us on to greater activity in the future there are at least also some features on which we can look with satisfaction.

I have the honour to be,

Your obedient Servant,

F. J. SADLER, M.D., D.P.H., Oxon.,

Medical Officer of Health.

June, 1914.

To the Hospitals Committee of the Town Council.

Gentlemen,

During 1913, 692 cases were admitted to the Kendray Hospital, the highest number since 1908, and the second largest number of cases since the Hospital reached its present size in 1904.

Of these 692 cases, 443 were cases of Scarlet Fever, 55 were isolated as Typhoid Fever and 194 as Diphtheria.

Of the Scarlet Fever cases, 3 were members of the Staff who contracted Fever in the course of their employment.

The number of admissions from the time the Kendray Hospital reached its present dimensions, are as follows :—

1904	-	628 cases	1909	-	496 cases
1905	-	691 ,,	1910	-	422 ,,
1906	- 2	622 ,,	1911	-	542 ,,
1907	-	594 ,,	1912	-	501 ,,
1908	-	760 ,,	1913	-	692 ,,

From Barnsley itself 131 cases were admitted, of which 61 were Scarlet Fever, 12 Typhoid Fever, and 58 Diphtheria.

			Scarlet Fever	Enteric Fever	Diphtheria	TOTAL
Barnsley	-	-	61	12	58	131
Wombwell	-	-	49	10	65	124
Worsbrough		-	115	2	5	122
Monk Bretto	on	-	19	1	3	23
Darfield	-	-	10	2	5	17
Hoyland	-	-	58	5	14	77
Royston	-	-	2	0	7	9
Dodworth	-	-	12	1	0	13
Ardsley -	-	-	9	0	25	34
Darton -	-	-	43	13	5	61
Cudworth	-	-	61	7	5	73.
Barnsley Ru	ral	-	1	2	2	5
Staff -	-	-	3	0	0	3
			443	55	194	692

In tabular form, the various localities sent in cases as follows:—

There were 10 deaths among the 442 cases of Scarlet Fever, a case fatality of 2.2, which is slightly below the average of the preceding 10 years and satisfactorily lower than the case fatality of 1912, which was 3.3.

The type of Scarlet Fever was very nearly as severe as in the preceding year, and there was a great tendency for the patients to develop complications caused by various streptococci such as discharge from the nose and from the ears. So much was this the case that after consultation with Professor Dean, of Sheffield University, we decided that in 1914 we would try the effect of a sensitised streptococcal vaccine for every alternate case, this being the most up-to-date form of vaccine treatment, on the results of which treatment I shall have occasion to comment next year.

Among the 55 cases of Typhoid Fever there were 7 deaths, being a case fatality of 12'7, a slightly higher case fatality than in 1912, but 2% lower than the average of the past 10 years.

Of the 194 cases of Diphtheria 9 died, a case fatality 4'6, which is an improvement on the previous year with a case fatality of 6'9.

Tracheotomy was required in 11 cases, and I regret to say that 5 of these died, so that 54'6 per cent. of the Tracheotomy cases were saved.

The Diphtheria of the year was undoubtedly of a very much more severe type than in the previous year, necessitating the administration of larger doses of anti-toxin. Whereas we used to find that for an ordinary case 2,000 units of anti-toxin was ample, this year we began to discover that in 8 or 10 days patients who had only received so small an amount were liable to complications such as paralysis and heart failure.

So much was this the case that I decided that for the present no child admitted with Diphtheria to the Hospital should receive less than 4,000 units, and in many cases we found it necessary to give as much as 10,000 or 12,000 units.

When I remind you that each 2,000 units of anti-toxin costs 2/9, this increased virulence of the type of Diphtheria has by itself added very appreciably to the cost of treating Diphtheria during the year.

It is universally admitted that the only way to prevent complications is to give sufficient anti-toxin to neutralise all the Diphtheria toxins which have been already set free in the body, and that anything short of this amount leaves toxins free to anchor themselves to various parts of the nervous system, and that means danger to the patient, if not death, so that the additional money spent in Diphtheria anti-toxin is not money thrown away, seeing that the lives of patients cannot be measured in terms of \pounds s. d.

The following tables give the record of Scarlet Fever and Typhoid Fever in the Kendray Hospital during the past 10 years.

Year.	Cas	ses admitted.		Deaths.		Case fatality per cent.
	Cas					
1903	-	215	-	3	-	1.3
1904	4	462	-	12	-	2.6
1905	-	572	-	30	-	5.2
1906	-	494	-	14	-	2.8
1907	-	467	-	11	-	2.35
1908	-	587	-	23	-	3.9
1909	-	346	-	9	-	2.6
1910	-	310	-	5	-	1.7
1911	-	364	-	6	-	1.6
1912	-	362	-	12	-	3.3
In 10	Years	4,179		125		2'9
1913	-	443	-	10	-	2'2

SCARLET FEVER IN KENDRAY HOSPITAL.

Year.	Ca	uses admitt	ed.	Deaths.	C	ase fatality per cent.
1903	-	101	-	20	-	19'9
1904	-	91	-	13	-	14.2
1905	-	98	-	9	-	9'2
1906	-	94	-	11	-	11.7
1907	-	87	-	16	-	18'4
1908	-	146	-	21	-	14'3
1909	-	123	-	21	-	17
1910	-	55	-	10	-	18
1911	-	64	-	10	-	15.6
1912	-	49	-	6	-	12.2
Totals		908		137		14.6
1913	-	55		7	-	12.7

TYPHOID FEVER IN KENDRAY HOSPITAL.

My thanks are due to Dr. Fryer, the Matron, and the Nursing Staff for the indefatigable assistance which they have once more given me during the year; and also to Dr. Harold Horne for his assistance when Dr. Fryer was on his holiday and when I was taking mine; also to other Medical men who, in an emergency, have kindly given their assistance.

I have the honour to be, Gentlemen,

Your obedient Servant,

F. J. SADLER. M.D., D.P.H., Oxon.,

Medical Officer.

June, 1914.



Vital Statistics of whole District during 1913 and Previous Years. TABLE I.

		_					_	_								
		Zymotic Death Rate.		61.8		2.38				1.78				3 .19	2.06	
	Deaths	5 years.	nt. of eaths.	48.99	49.73	in	46.88	44.76	43.14	40.73	45.85	49.91	33.42	43.72	41.09	of 1911.
Ne t.	* Total Deaths in Pu Total Deaths in Pu Total Deaths of Non-resid registered in Public Institution Public Institution P		Per cent. of Total Deaths.	32.66	33.66	-	32.37	28.39	30.58	27.02	32.06	78.08	21.20	29.83	27'36	at Census of 1911,
wths at	istrict.			19.92	9.	.9	18.74	18'46	ò	1		20.70	4	17'89	16'36	. 50,614
Nett Deaths at all Ages Belonging	to the D		Number.	845	-	3	834	831	860	807	761	1056	745	829	859	::
su	ni be mituti	tan1 :	Public	16	34	26	20	18	24	23	22	48	40	27	32	ll ages Houses
st	ni be itution	tenI :	Public	66	67	68	72	86	77	64	55	94	64	71	86	Total Population at all ages Number of Inhabited Houses
	lå ni s	noidu	lijanI	119	129	01	147	175	9	134	111	177	157	144	126	Total Fol Number
the	ages.		Rate *	21.10	19.45	2.2	6.6	19.97	20.06	18'24		21.61	14.93	18.97	17'39	
	At all		Number.	895	850	781	886	5	913	848	794	1102	769	872	913	
Total Deaths Registered in District.	ar of age.	Rate per	1,000 Births registered.	75		50.	72.	55	.19	35.0	4.3	211.27	100.96	159.85	147.75	
Tota	Under 1 year of		Number	-1	274		270	236	9	-	244	326	158	248	237	ation.
hs.		Rate * .		I.1	34.46	8.8			9			30'26	30.38	33'84	30.55	mated popul
Births.		Number.		1575	1506	49	5	5	62	61	1581	4	1565	1558	1604	1,000 of esti
əli	bbim o	afuqo ted t dose	emites	42400	43700	44000	44500	45000	45500	46500	48000	51000	51500	46210	52500	Rates calculated per 1,000 of estimated population.
		Year.		1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	Averages for years 1903 - 1912.	1913	* Rates ca

Area of District (exclusive of area covered by water) 2,386 acres.

Number of Inhabited Houses 10,631 at Census of 1911. Average number of persons per house ... 476 TABLE III.

Cases of Infectious Disease notified during the year 1913.

and the object whe			Num	ber of C	Number of Cases Notified.	ified.		-	Total Cases	
NOTIFIABLE DISEASE.	At all Ages.	Under 1 Year.	1-5	5-15	15-25	25-45	45-65	65 and upwards	removed to Hospital.	
Diphtheria (including Membranous Croup)	73	1	15	47	7	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	:	:	58	
Erysipelas	19	:	:	:	3	7	7	2		
Scarlet Fever	72	1	18	45	4	4	:	:	61	
Enteric Fever	14	:	5	2	33	7	:	:	12	
TOTALS	178	5	35	94	17	21	2	62	131	
Isolation Hospitals provided by Barnsley Corpora- { Kendray Hospital, Ardsley, nr. Barnsley. tion and Contributing Authorities { Lund Wood Hospital, Monk Bretton, nr. I	oy Barns uthoritie	sley Corj	pora- {	Kendra Lund V	y Hosp Vood He	ital, Ard ospital, I	lsley, m Monk B	c. Barns retton, 1	Kendray Hospital, Ardsley, nr. Barnsley. Lund Wood Hospital, Monk Bretton, nr. Barnsley.	

4.

Number of Diseases that can be concurrently treated ...

Total available Beds ... 150.

DISEASI	ES.		At all Ages.	Under 1 Year.	1-2	2-5	5-15	15 - 25	25 - 30	30-45	45-65	65—	70-	80—	90-
Measles			22	9	5	7	1								-
Scarlet Fever			7	3	3		1								
Whooping Cough			6		4	2	-								
Diphtheria and Membrai		•••	7												
Enteric Fever				1	1	3	2								
Epidemic Influenza			1					1							
D' I	•••		30	6	4	2		4	1	3	6		2	2	
Diarrhœa			65	46	15	1				2			1		
Erysipelas			2								1		1		
Other Septic Diseases			4				1	1		1		1			
Phthisis			41	1	1	1	2	11	1	11	12	î	1000		
Other Tubercular Diseas			44	13	11	7	9	2		1	12				
Cancer, malignant Disea	se		52	2			1	1		6	30		4		
Bronchitis			69	25	3	1	2	1		1	15	-	1.1.1		
Pneumonia		103.001	31	4	3	3	3	4	2	1		4	14	3	
Pleurisy			2		9	-	3	4	2	4	5	2	1		
Broncho-pneumonia			44			1		•••		1					
Other Diseases of respira				18	11	9	2			1	2	1			
Number Diseases of respira	tory organs		1	1											
Cirrhosis of Liver			7							2	3	1	1		
Venereal Diseases			8	8											
Premature Birth			45	45											
Diseases and accidents of	f Parturition		9					2	2	5					
Heart Diseases			77		1		3	2		13	21	7	23	5	2
Accidents			36	4	ĩ	5	5	6	1	3	6	2	2	1	_
Suicides			6						î		4	_		1	
Acute Rheumatism		222	1								-			1	••••
Diseases of Nervous Syst	em		24	10									1		
Diseases of Digestive Sys	tom		24		5		3		1		1	2	2		••••
Diseases of Uninemand	demensting G			4		1			1	1	8	3	3		
Diseases of Urinary and (Jenerative S	ystems	34		1		1	2		3	17	5	5		
Old Age			40								2		18	18	2
Cerebral Hæmorrhage			29								13	3	11	2	
Other Defined Diseases			61	10	2	4	1		2	3	21	7	11		
Congenital Defects			22	21			1								
Alcoholism			2								1	1			
All other Causes			9	4					1		ī	ī	2		
ALL CAUSES			859	235	71	47	38	37	13	61	170	49	102	32	4

TABLE II. Causes of, and Ages at, Death in Barnsley during the year 1913.

Deaths of Non-Residents registered in Public Institutions in the District 86 in the District...86Deaths of Residents in Public Institutions in the District90 Illegitimate included in above { Male ... 54 Total Deaths in Public Institutions 176

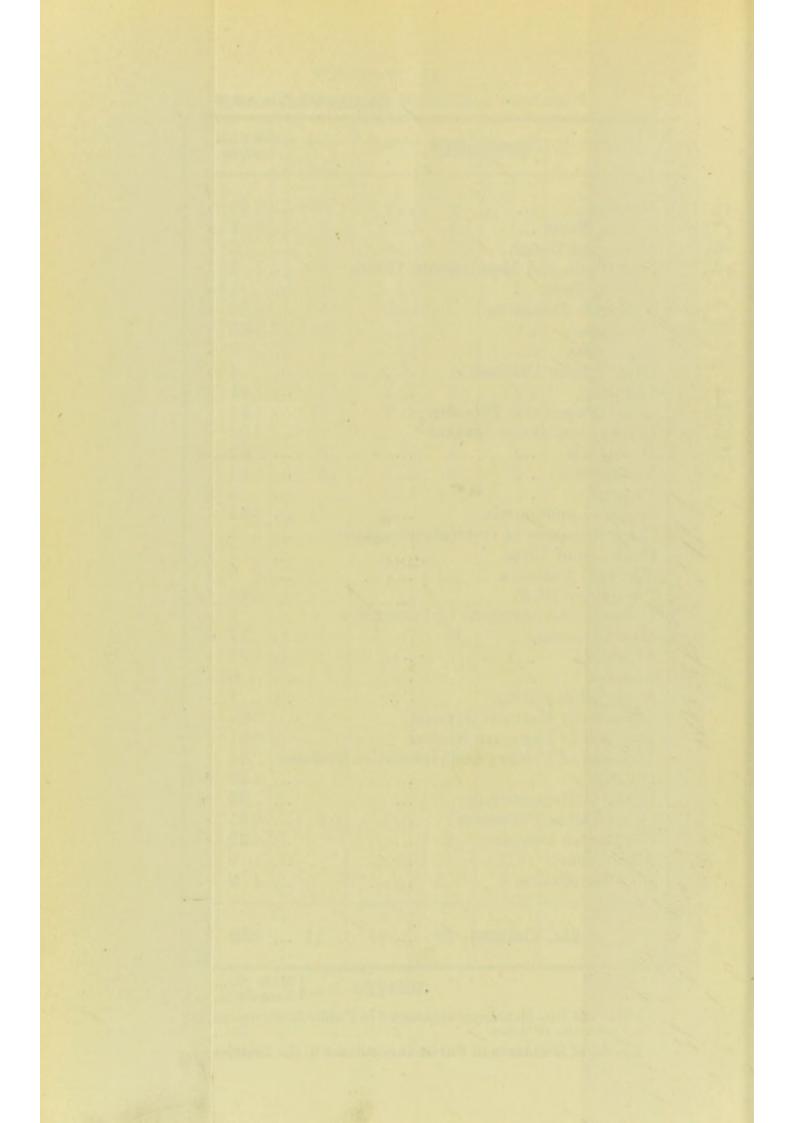


TABLE IV.

Class of Disease.	Total Deaths.	Deaths per 1,000 Persons living.	Percentage of Total Deaths.
Phthisis	41	.78	4.81
Bronchitis	69	1.31	8.06
Pneumonia	31	.59	3.65
Pleurisy Broncho-Pneumonia and other Respiratory	2	.04	.04
Diseases	45	.86	5.32
Total	188	3.58	21.88

Deaths from Phthisis and Respiratory Diseases.

TABLE V.

Showing the number of Deaths from each of the Seven Principal Zymotic Diseases in the Twelve Years 1902 to 1913, omitting Deaths from other Sanitary Districts, but including Deaths from Barnsley in the Kendray and Lund Wood Hospitals.

DISEASE.	1903	1904	. 1905	1906	1907	1908	1909	1910	1911	1912	Average Number of Deaths for 10 years, 1903-1912.	Deaths in 1913.	Zymotic Death Rates, 1913.
Small-pox	1	5	3								•90		
Measles	56	23	28	11	44	10	26	8	90	17	31.30	22	•42
Scarlet Fever	2	11	8	17	10	12	3	1	2	10	7.6	7	•13
Diphtheria and Membran. Croup	9	9	4	7	4	1		2	4	7	4.7	7	•13
Whooping Cough	21	27	3	17	24	32	1	53	12	24	21.4	6	.12
Enteric Fever	10	19	8	7	11	16	10	7	11	5	10.4	1	.02
Diarrhœa	62	99	51	99	53	76	43	57	153	13	70.6	65	1.24
									-				
TOTALS	161	193	105	158	146	147	83	128	272	76	146.9	108	2.06

TABLE VI.

Births and Deaths registered' Deaths under 12 Months; and Number of Deaths from various Causes in each Month of the year 1913; and also

Deaths in Public Institutions.

		·
Public Institutions.	15 19 19 19 10 16 14 10 16 12 14 12 12 12 12	176
Diarrhoea.	$ \begin{array}{c} & & & \\ & & & &$	65
.zsiruțaI	03 cp cg cg : 4 H ro H co 60	36
Phthisis.		41
Influenza.	4100004000 : · ·	30
Respiratory Diseases, except Phthisis.	22 30 13 10 10 10 10 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 10	147
ariqoodW Cough.	ц :ц : : :ц сл : : : :	9
меязіея.	4 : : : : : : : : : : : : : : : : : : :	22
Турлоід Fever	: : : : : : : : : : : : : : : : : : :	1
Diphtheris and Membranous Croup.	······································	7
Scarlet Fever.	: 50 00 : : : : 00 10 : : :	7
Deaths under I year.	16 29 17 17 13 13 13 30 30 30 24 24	235
Deaths.	84 82 82 81 63 57 57 63 63 68 69 63 85	859
Births.	152 152 106 128 140 129 138 149 144 127 138 141 141	1,608
1913.	January January February March April July August September October December	Totals

TABLE VII.

Temperature and Rainfall in Barnsley in 1913.

Amount in Inches	3'33 '65 '65 3'52 2'71 2'71 2'71 2'71 2'71 2'71 2'71 2'7	24.87	26.43
Days on which Rain fell	20 11 18 18 18 16 15 10 16 10 10 10	177	189
Days on which 4 ft. Earth Thern'meter registered 56° or more.		Nil.	Av. for 21 yrs. 46
Days of Frost	11 ²⁰ ²⁰ ²⁰ ²⁰ ²⁰ ²⁰ ²⁰ ²⁰	32	52
Days on which 70° was reached		28	35
Days on which 50° was reached.	2 10 31 31 31 29 29 29 29 29 29 29 29	249	220
Minimum	$\begin{array}{c} 23^{\circ}\\ 23^{\circ}\\ 26^{\circ}\\ 36^{\circ}\\ 44^{\circ}\\ 37^{\circ}\\ 32^{\circ}\\ 32^{\circ}\\ 25^{\circ}\\ \end{array}$		40 years
Maximum	51° 51° 55° 76° 73° 53° 53° 53°		preceding
Month.	January January February March April June July July September October December	TOTALS	Average for preceding 40 years

TABLE VIII. (Table IV. of L.G.B.) INFANT MORTALITY. Nett Deaths from stated Causes at various Ages under 1 Year of Age.

Under 1 week
:
:
:
:
:
:
4
32
12
4
60
legitimate illegitimate

Years.	Scarlet Fever Death Rates.								
1871	.17	1881	.13	1891	.25	1901	•44	1911	.03
1872	·01	1882	1.24	1892	.24	1902	·14	1912	.18
1873	5.06	1883	.30	1893	•58	1903	·04	1913	.13
1874	2.80	1884	3.87	1894	·10	1904	.25		
1875	.62	1885	1.71	1895	•40	1905	.18		
1876	.27	1886	1.52	1396	·59	1906	'38		
1877	.27	1887	178	1897	.54	1907	•22		
1878	.57	1888	•49	1898	.02	1908	·27		
1879	1.58	1889	.23	1899	·21	1909	.00		
1880	1.58	1890	.05	1900	'32	1910	.02		

TABLES A to D.

SCARLET FEVER DEATH RATES FOR 43 YEARS.

A

C Number of Deaths in Barnsley from the seven principal Zymotic Diseases during Four Decades, and in the years 1911—1913, including Deaths at Kendray and Lund Wood Hospitals of Barnsley Residents.

	Decade	Decade	Decade	Decade	Years
	1871-1880	1881-1890	1891-1900	1901-1910	. 1911-1913
Small-poxMeaslesDiphtheriaWhooping CoughTyphoid FeverDiarrhœaScarlet Fever	130 23	$\begin{array}{r} 4\\ 195\\ 58\\ 175\\ 75\\ 358\\ 355 \end{array}$	$5 \\ 299 \\ 65 \\ 195 \\ 145 \\ 650 \\ 135$	$ \begin{array}{c} 11\\ 287\\ 65\\ 202\\ 138\\ 681\\ 88\\ \end{array} $	$0\\129\\14\\42\\17\\231\\19$

N.B.-The Kendray Hospital was opened in 1891.

Year.	Small-pox.	Scarlet Fever	Diphtheria and Membranous Croup	Erysipelas.	Puerperal Fever.	Typhoid Fever.	Total Notifications
1892 1893 1894 1895 1896 1897 1898 1899 1900 1901 1901 1902	43 26 5 3 1 15	$ \begin{array}{r} 112 \\ 283 \\ 240 \\ 280 \\ 326 \\ 230 \\ 99 \\ 151 \\ 297 \\ 396 \\ 346 \\ \end{array} $	57 79 51 36 52 18 18 20 47 43 52	$29\\63\\39\\33\\26\\37\\33\\40\\28\\36\\39$	$2 \\ 9 \\ 4 \\ 6 \\ 10 \\ 6 \\ 2 \\ 8 \\ 9 \\ 10 \\ 11$	$ \begin{array}{c} 11\\ 236\\ 125\\ 124\\ 76\\ 52\\ 133\\ 76\\ 87\\ 164\\ 86\\ \end{array} $	$254 \\ 696 \\ 464 \\ 482 \\ 491 \\ 343 \\ 285 \\ 295 \\ 468 \\ 649 \\ 549 \\ 549 \\ $
1903 1904 1905 1906 1907 1908 1909 1910 1911 1912	38 89 59 	105 222 255 244 249 240 104 84 118 170	52 56 29 45 24 16 11 22 34 62	33 38 28 42 22 28 16 29 23 29	7 4 5 4 4 2 1 1 1 2 3.1	58 78 66 53 47 78 58 23 52 29 54.2	293 485 442 388 346 364 190 159 228 360 325 ⁵
10 years		179'1 72	35 [.] 1 73	28 [.] 8	3.1	54 [•] 2	325 5

D	Comparative Table of Notification	ns for	preceding						
Twenty One Years.									

REPORT

OF THE

MEDICAL OFFICER OF HEALTH

AND OF THE

SCHOOL MEDICAL OFFICER

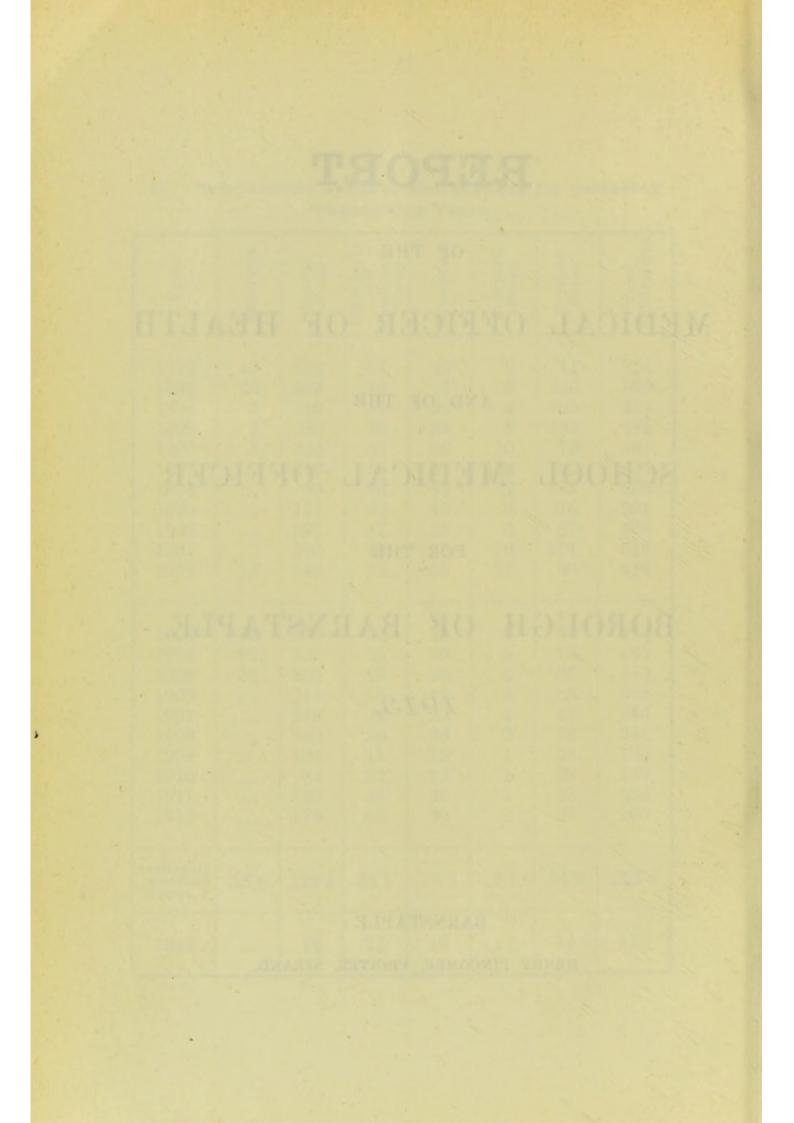
FOR THE

BOROUGH OF BARNSTAPLE.

1913.

BARNSTAPLE :

HENRY PINCOMBE, PRINTER, STRAND.



Rackfield House,

Barnstaple.

January 31st, 1914.

To the Chairman and Members of the Barnstaple Town Council, and Education Authority.

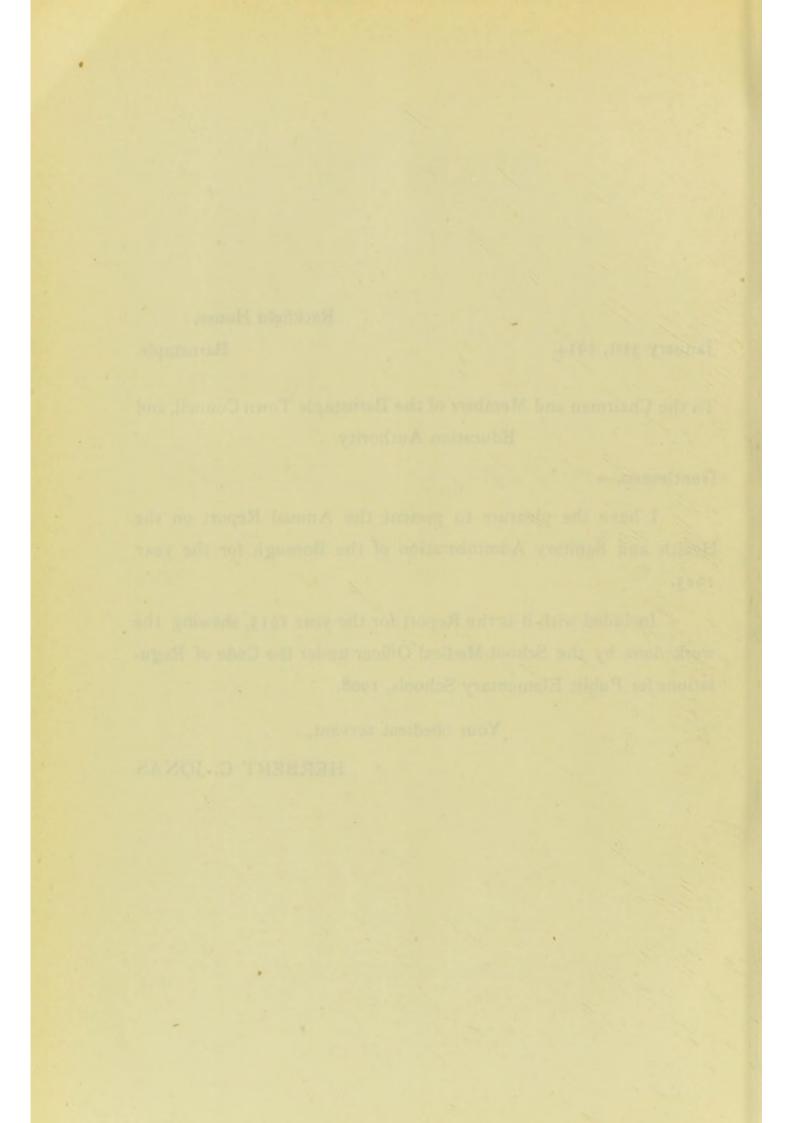
Gentlemen,-

I have the pleasure to present the Annual Report on the Health and Sanitary Administration of the Borough for the year 1913.

Included with it is the Report for the year 1913, shewing the work done by the School Medical Officer under the Code of Regulations for Public Elementary Schools, 1908.

Your obedient servant,

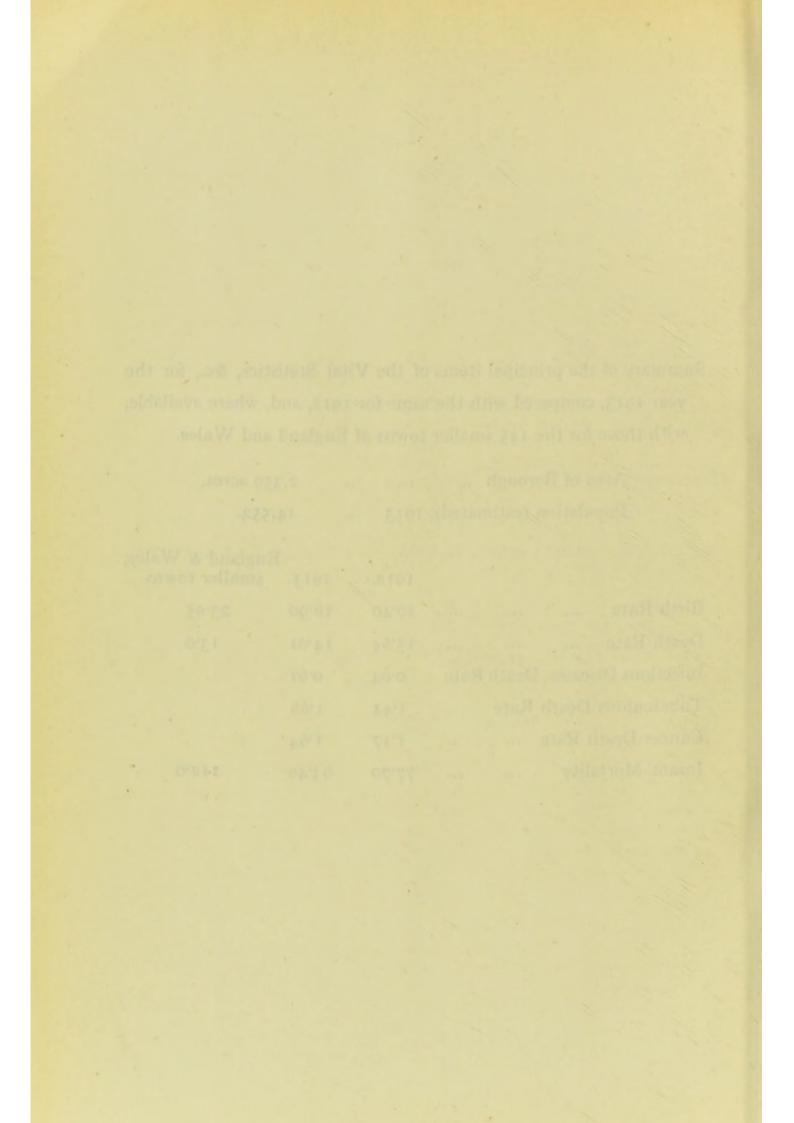
HERBERT C. JONAS.



Summary of the principal items of the Vital Statistics, &c., for the year 1913, compared with the same for 1912, and, where available, with those for the 145 smaller towns of England and Wales.

Area of Borough	••• •••	 2,359 acres.
Population (estim	ated). 1913	 14,552.

	1912.	1913.	England & Wales, smaller towns.
Birth Rate	20.40	16.90	23.95
Death Rate	15.64	14.01	13.0
Infectious Diseases, Death Rate	0.04	0.61	
Tuberculosis Death Rate	1.44	1.66	
Cancer Death Rate	1.12	1.64	
Insant Mortality	77.70	93.49	112.0



(A.) NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT.

The Borough of Barnstaple comprises an area of 2,359 acres. It is situated on the banks of the estuary of the Taw, and the greater part of the town is on the north-eastern bank. The town is pleasantly situated : surrounding hills shelter it from the north and east winds. The tide runs up to Newbridge on the Exeter road, nearly four miles out of Barnstaple.

The census of 1911 gives the population as 14,484.

The estimated population up to the middle of 1913 was 14,552.

There were 3,539 inhabited houses in 1911.

The chief industries are agriculture (mainly sheep and cattle raising), cabinet making, glove manufactory, lace net making, and pottery.

POOR LAW RELIEF.

The average number of persons in receipt of relief for the year ending September 30th, 1913, in the Borough of Barnstaple is :---

Males	Females	Children	Total
55	199.	131.	385.

A meteorological report has been kindly given by Mr. Wain wright, and will be found as Table VI. at the end of this Report.

(B.) SANITARY CIRCUMSTANCES OF THE DISTRICT.

WATER SUPPLY.

The Borough is supplied with water by the Barnstaple Water Company. The water is derived from the river Yeo at Bratton Cross. It is of an excellent quality, and the supply is abundant. There is no pollution.

No instances of lead poisoning have occurred in the Borough. The supply is a constant one. The filtration beds are 8,800 square feet in extent.

The daily consumption is 677,000 gallons.

The whole of the watershed is within the area of the Barnstaple Rural District Council, and is very carefully supervised by their sanitary staff. RIVERS AND STREAMS.

The river Taw is polluted by receiving the crude sewage from Barnstaple and other places on its banks.

In estimating the importance to health of this pollution there are several factors to be considered.

The estuary is very broad and over a large part of its course very shallow, and consequently any sewage left by the tide gets constantly arrated.

The river brings down a very large quantity of flood water, and the rainfall is heavy. The Taw rising on Dartmoor, receives at South Molton Road at least an equal volume from Exmoor by way of the Mole and Bray. A glance at the map will show what a very large area for its length the river does drain. The constant flooding effectually cleans the bed of the river. Salmon ascend the river annually, and in 1913 they came up in increasing numbers. This is not usually the case if the sewage pollution is serious.

Again, Barnstaple sewage is diluted with a large quantity of storm water and subsoil water, since the rainfall on all the surrounding hills drains into the sewers.

It would appear from the report of the Royal Commission on the pollution of rivers that they recommend considerable alterations in the present methods of dealing with river pollution, and they suggest that experiments should be carried out for a considerable time to come.

Considering the fact that any scheme for dealing with the Barnstaple sewage is bound to be extremely costly, it would not be advisable for the Council to undertake a vast scheme which may eventually prove to have been an experiment which has failed.

The two main dangers to public health from this pollution are (1) eating shell-fish and (2) bathing in the river near the outfall.

At present the cure for these two causes rests with the people themselves. And the double warning may once again be given to them in this Report.

It is dangerous to eat any shell-fish gathered in the Taw or Torridge, and bathing should not be indulged in anywhere within the neighbourhood of the town.

DRAINAGE & SEWERAGE.

There are two outfalls on the east side of the river, one at Castle Quay and one at Pottington. A third is situated on the west side of the river at Bridge Wharf; this takes the drainage from the Sticklepath district.

This latter sewer carries a heavy amount of storm water, and has, unfortunately, a very small fall at the lower portion. Consequently, when a heavy storm coincides with a high spring tide, flooding sometimes occurs, The matter is engaging the attention of the Council.

SCAVENGING,

House refuse is collected in a covered cart, and is at present being used to fill up some old clay pits by the Braunton Road. The field which was used in the Derby district last year is no longer in use.

This year an attempt was made during the hot weather to collect refuse twice a week from certain districts specified by the Medical Officer, but it was found that the amount so collected was very small, so that the practice was discontinued.

It is still to be regretted that proper covered ash-bins are not more generally used. There are still very many filthy boxes in use throughout the Borough.

CLOSET ACCOMMODATION.

Water closets are used everywhere in the district with a few exceptions. What earth closets there are, are not too well kept, and it would be advisable to issue printed instructions to each householder explaining the best way to keep them clean and sanitary.

SANITARY INSPECTION OF THE DISTRICT.

The following report is given by Mr. Hill, showing the work done during the year .--

Pilton, Barnstaple,

January, 1914.

To the Chairman and Members of the Urban District Council.

Gentlemen,-I beg to report the following :

Number of Complaints received during the year	. 150
" Houses inspected	
" Inspections made	
" Preliminary Notices given	
,, Statutory Notices served	
" Official reports made	
" Houses re-drained throughout, with new connec	
tions to sewer	
" House drains repaired and put in order	
" Dwelling houses made reasonably fit	. 82
" Dwelling houses under repair	
"Houses condemned as unfit for human habitation	
New Water Closets built	
, Water Closets repaired	
" Privies converted into Earth Closets	
". Privies converted into Water Closets	
Visits to Dairies, Cowsheds, and Milkshops	
"Workshops, Bakehouses. and Outworkers' premise	
" Common Lodging Houses	
"Slaughter-houses	
Cases of Overcrowding Abated	
Heaps of Manure, &c., removed, and various nuisances abated	
Number of Houses disinfected	
,, cleaned and limewashed	
Quantities of Disinfectants served out	
Samples of Water taken for analysis	
Condemned	

The carcases of 3 bullocks with the offal have been condemned as unfit for human consumption and destroyed; also one lot of unsound fish seized and destroyed.

I am, Gentlemen,

Your obedient servant,

JOHN HILL, AR.S.I.

Premises and occupations which can be controlled by Bye-laws :--

COMMON LODGING-HOUSES.

Of these there are two. Both are well kept.

OFFENSIVE TRADES.

Fell Mongers, 2. Fried Fish Shops, 4. Manufacture of Tar and Sulphate of Ammonia, 1.

Complaints of an offensive smell causing a nuisance were made with regard to one fellmonger. Nothing definite was found on repeated inspection, but the owner was communicated with, and since then presumably more care has been exercised, since no further complaints have been made.

SCHOOLS.

Mr. S. R. Gibbs continues to fill the post of School Medical Officer, and his report is included under this heading.

The general sanitary condition of all schools is satisfactory. The improvement this year in the Pilton lavatories is excellent, and it is to be hoped some of the other schools can be improved in the same way.

The cloak room accommodation still remains somewhat insufficient. The same remark applies to washing accommodation in some schools.

Bear Street, Barnstaple,

January, 1914.

To the Barnstaple Education Committee.

Miss Wright & Gentlemen,-

Your School Medical Officer begs to present his Sixth Annual Report upon the Medical Inspection of School Children in the Borough :---

The plan of previous years has been followed in dividing the subject into the following heads :---

A. The General and Sanitary arrangements of the schools.

B. The arrangements adopted for carrying out the inspection.

C. The Scope and Extent of Medical Inspection during the year.

D. The Physical Condition as revealed by Medical Inspection.

E. The action taken in regard to treatment.

Medical Inspection of Schools during the year.

There are eleven Public Elementary Schools in the Borough, with 14 departments.

The total number of children on the books at the end of the year was 1,923, which shows a slight increase on the low figure of the year 1912.

The children were distributed as follows :---

	1912		1913
Blue Coat	173	1611	158
National Girls	145		143
" Infants	130		158
Holy Trinity Boys	. 117		116
Holy Trinity Girls	149		126
Ashleigh Road Council (Mixed	d) 336		287
Cyprus Terrace Infants .	78		163
Pilton Mixed	133		119
	81		104
Roman Catholic	85		88
	141		125
St. Mary Magdalene Infants .	64		83
	202		185
Wesleyan Infants	88		103
	Jostan	Bada	
	1923		1898
		and the second se	A DECEMBER OF THE OWNER OWNE

HEATING ARRANGEMENTS.

These are quite satisfactory.

VENTILATION.

There is no change in this since the last report,

LIGHTING.

This is good at most of the schools. A new window has been recommended to be put in at one of the schools in one class-room which was slightly deficient.

CLOAK ROOMS.

The accommodation in this department is still far from sufficient.

CLEANLINESS OF CLASS-ROOMS.

This is satisfactory, and the work is well done.

WATER SUPPLY.

Very good. Washing accommodation still insufficient in several schools.

SANITARY OFFICES.

These continue to improve. A complete new lavatory has been built at Pilton School, which reflects great credit on those who are responsible for it. It consists of w.c's. and urinals, and is a great improvement on what was there before.

EQUIPMENT,

Is gradually improving.

(B). ARRANGEMENTS FOR CARRYING OUT SCHOOL INSPECTION.

The examination of this year has been occupied with the following groups :--

- 1. Entrants to Infants' School, 4-5.
- 2. Entrants to Upper School, 7-8.
- 3. Leavers, 12-13.
- 4. Children of other ages needing examination.

5. Children who were referred as needing treatment at previous examinations.

6. Children who were referred as needing supervision at previous examinations.

7. A number of children referred for treatment were gone especially into this year, to see how many actually receive treatment and improve as the result; and a table will be found at the end of this section.

The School Medical Officer cannot speak too highly of the assistance given him by the teachers of the various schools, as in the absence of a school nurse or visitor it would be impossible to get through the work without their very active help, which is most willingly given.

The examinations have been all carried out in school hours on school premises, with very little disturbance to work.

The parents do not attend very well on the whole, and the good percentage obtained at the end of 1912 has not been kept up; but there have been very few cases of objections to examination on the part of the parents. The same arrangements for obtaining the presence of patients have been continued from last year.

A special inquiry was also carried out at the request of the Committee into the state of the children's teeth, which were found to be far from satisfactory; and also a special inquiry was carried out with a view to providing especial treatment for mentally defective children in the Borough.

As the result of an inquiry into the cases of 247 children referred for treatment at previous examinations, the following figures were obtained :---

No. examined. No. receiving no treatment. No. receiving treatment. 247. 112. 124.

Of the 124 receiving treatment 119 had improved, and five shewed little or no improvement.

Of the 112 receiving no treatment 23 had improved, and 99 showed no improvement.

This means that an average of just about 50 per cent. of the children get adequate treatment.

(C). EXTENT & SCOPE OF THE MEDICAL INSPECTION DURING THE YEAR.

Visits to Schools and Departm	ients		····		103
Number of children examined					708
Entrants and Leavers					472
Other Ages					68
Parents present					210
No. referred for treatment					222
No. referred for supervision or	subseque	ent exami	nation		102
No. examined as the result of d	lefects no	ted in pre	vious exa	ms.	368

Diseases referred for medical treatment :--

Tonsils					29
Adenoids		···			26
Nits					17
Defective to	eeth				99
Deficient ey	resight				35
Eye disease					9
Weak hear	t				5
Skin disease	е				4
Spinal curv	ature	l	www		3
Weak ches	t				2
General de	bility				6
Ear disease	· ··· 10			yoh bob	6
Enuresis		ken bai	P		I
Enlarged th	hyroid				2
Rupture					I
Enlarged g	lands				2
All other c	auses				6
				-	

Total 255

(D). PHYSICAL CONDITION AS REVEALED BY MEDICAL INSPECTION.

NUTRITION.

Good on the whole.

A	Number	Males.				FEMALES.			
Age.	exam'ed.	Statement of the second s		Weight.		Height.		Weight.	
5-6 6-7 7-8 8-9 9-10 10-11 11-12 12-13 13-14 14-15	137 2 1 172 27 63 18 112 19 12	ft. 3 3 4 4 4 4 5	ins. $4\frac{1}{2}$ $5\frac{1}{12}$ $3\frac{1}{2}$ 4 7 9 0	st. 2 3 4 4 5 5 6	$ \begin{array}{c} \text{lbs.} \\ \text{IO} \\ \\ \text{IO}_{2}^{1} \\ \text{IO}_{2}^{1} \\ \text{IO}_{2}^{1} \\ \text{II} \\ \text{II}_{2}^{1} \\ \text{II}_{2}^{1} \\ \text{II}_{2}^{1} \\ \text{II} \\ \text{II} \\ \text{II}_{2}^{1} \\ \text{II} \\ \text{II} \\ \text{II}_{2}^{1} \\ \text{II} \\ \text{II} \\ \text{II}_{2}^{1} \\ \text{II} \\ I$	ft. 3 3 4 4 4 4 4 4 4 4 4 4	ins. 4 6 O_{12}^{1} I 4 3 7 II 9_{12}^{1}	st. 2 2 3 4 4 5 6 5	$ 1bs. 92 11 9 0 3^{\frac{1}{2}}_{\frac{1}{2}}}_{\frac{1}{2}}_{\frac{1}{2}}_{\frac{1}{2}}}_{\frac{1}{2}}_{\frac{1}{2}}_{\frac{1}{2}}_{\frac{1}{2}}_{\frac{1}{2}}_{\frac{1}{2}}_{\frac{1}{2}}_{\frac{1}{2}}_{\frac{1}{2}}_{\frac{1}{2}}_{\frac{1}{2}}_{\frac{1}{2}}_{\frac{1}{2}}_{\frac{1}{2}}_{\frac{1}{2}}_{\frac{1}{2}}_{\frac{1}{2}}_{\frac{1}{2}}_{\frac{1}{2}}}_{\frac{1}{2}}_{\frac{1}{2}}_{\frac{1}{2}}}_{\frac{1}{2}}_{\frac{1}{2}}}_{\frac{1}{2}}_{\frac{1}{2}}}_{\frac{1}{2}}}_{\frac{1}{2}}_{\frac{1}{2}}}_{\frac{1}{2}}_{\frac{1}{2}}}_{\frac{1}{2}}_{\frac{1}{2}}}_{\frac{1}{2}}_{\frac{1}{2}}}_{\frac{1}{2}}}_{\frac{1}{2}}_{\frac{1}{2}}}_{\frac{1}{2}}_{\frac{1}{2}}}}_{\frac{1}{2}}}_{\frac{1}{2}}}_{\frac{1}{2}}}_{\frac{1}{2}}}_{\frac{1}{2}}}_{\frac{1}{2}}}_{\frac{1}{2}}}_{\frac{1}{2}}}_{\frac{1}{2}}}_{\frac{1}{2}}}_{\frac{1}{2}}}_{\frac{1}{2}}}_{\frac{1}{2}}}_{\frac{1}{2}}}_{\frac{1}{2}$

CLEANLINESS.

There is not much cause for complaint in this direction. Most of the trouble originates from a very small proportion of the children in the schools, who are gradually being weeded out, and it is hoped this year to make a special effort to get these few children quite clean. The clothing and boots of some of the children in the poorer parts of the town are very bad indeed.

RINGWORM.

This has been very scarce in the schools. There have been one or two cases in the town imported from outside, but they have been caught before being admitted into the schools. No case of ringworm of the scalp was discovered during the routine examinations. There have been a few slight cases of ringworm of the face and hands but they have caused no trouble.

CARIOUS TEETH.

The teeth of the children are very bad. A special report was drawn up with regard to the children's teeth by your Medical Officer, who with the consent of the Committee visited several of the schools with two qualified dentists, and drew up a scheme for treating the children's teeth, and the following conclusions were drawn and suggestions made : The question arose this year in an acute form as the present arrangements with the North Devon Infirmary were discontinued.

A specimen of the report and suggestions drawn up is appended :---

1. That the children of the ages of 7, 8 and 9 are the best ages to start with.

That the estimated number will be 250; that 200 of these need conservative treatment.

2. The work is well worth doing, and should be of permanent good to the children; and the value of it to the physical well-being of the children in the town of the next generation cannot be over-estimated.

3. That all the children should be examined at those ages by a qualified dentist, who should decide what should be done.

(*i.e.* : at 7, 8 and 9 at first, and in future as children arrive at age of 7).

4. That practically two permanent teeth per child need filling, in addition to extractions of temporary teeth, and so at least 400 fillings would be necessary in the first twelve months.

5. Tha thalf-an-hour per filling, including charting and change of patient, must be counted, and 200 hours would be necessary to do the work, or, at three hours a day, 67 days.

6. That refusals by parents must be reckoned upon, even up to 25-30 per cent, ; but that even then there would be ample work to keep a dentist employed for three hours a week.

7. That your School Medical Officer begs to recommend the starting of a dental clinic as being the only solution of the difficulty.

It was noticed again during the preparing of the report that the teeth of the children in the poorer schools, though far from good, were distinctly better than those in the better class schools.

TONSILS AND ADENOIDS.

There is an average number of children with enlarged tonsils and adenoids. Most of them obtain treatment by recommend at the North Devon Infirmary or Barnstaple and North Devon Dispensary.

GLANDULAR ENLARGEMENTS.

Only two children were referred for treatment for enlarged glands.

EYE DISEASES, DEFECTIVE VISION.

There still remains the difficulty of replacing broken spectacles

In some cases, where children only need glasses for reading, the head teacher keeps their glasses for them while at play, and, in the case of very poor children, even while they are at home.

EAR DISEASE.

This is not very prevalent.

ENLARGED THYROID.

There is a decrease again here, only two cases being referred

SPINAL CURVATURE.

Three cases were referred.

LUNGS.

No definitely tuberculous lungs were discovered by the Medical Officer during his routine examinations.

HEART AND GENERAL DEBILITY.

Five children were referred for definite and valvular disease of the heart, and six for general debility.

(E). ACTION TAKEN WITH REGARD TO MEDICAL TREATMENT.

This has not changed. There is closer working between the Attendance Officer and the School Medical Officer, and they are in almost daily communication with regard to the schools.

There has been a considerable amount of scarlet fever in the town, but during the year it did not necessitate the closing of the schools, largely owing to the extension of the Christmas vacation of 1912.

I beg to remain

Your obedient servant,

STANLEY R. GIBBS.

FOOD.

MILK SUPPLY.

The cattle used in the dairies are mostly Devons, which are very free from tuberculosis. A certain number of Channel Island cattle are used in many dairies presumably to give richness to the milk. But if the figures, given later, by Mr. Eddy be examined it will be seen that the addition of water is much too common. During the year 2 out of 5 samples of scald milk were adulterated, and there were besides 2 convictions for samples taken too late in 1912 to be reported on last year. It would be advisable for your Inspector to take samples more frequently this year in order to try and put a stop to this practice.

In the circular letter of 6th August 1912, from the Local Government Board it is advised that your Medical Officer of Health should exercise a general supervision over action taken under the regulations.

It is suggested to the Council that special attention should be paid this year to the scald milk supplied in the Borough, and that the Inspector under the Food and Drugs Act be directed to obtain frequent samples from various milkmen,

Barnstaple holds a very unenviable position in this respect in the annual report of the Local Government Board on the Sale of Food and Drugs Act. The following table has been compiled from that report. It shows the proportion of pure to adulterated samples taken under the act in 7 districts. The towns chosen are those whose populations are nearest in numbers to that of this Borough which is in the centre. The figures need no comment.

District.		Population.	Milk Samples.				
		r opulation.	Examined.	Adulterated.			
Penzance		£3,478	26	0			
Beverley		13,655	21	I			
Kendal		14,033	14	0			
Barnstaple		14,485	20	4			
Wenlock		15,244	6	0			
Newark		16,408	34	I			
Boston		16,673	24	0			

OTHER FOODS.

During the year 3 bullocks have been surrendered and condemned with the offal, as the beasts had suffered from tuberculosis. One lot of fish was seized and condemned. The regulations of the Local Government Board as to meat inspection are followed by the Medical Officer of Health.

The food shops are clean and well kept.

The 5 private and 2 public slaughter houses are frequently inspected and are all kept very well.

There are no underground bakehouses. There are 20 upon ground and all are clean.

SALE OF FOOD & DRUGS ACT.

Mr. Eddy, Chief Constable, who is your inspector under the Act supplies the following report.

Sample.	No. taken.	Genuine.	Adulterated.	Convictions
Butter	7	7	0	0
Lard	6	6	0	0
Cheese	7	7	0	0
Pepper	I	Ï	0	0
Mustard	I	I	0	0
New Milk	9	9	0	0
Scald Milk	5 200 5 200	3	2	2
Scotch Whiskey	4	4	0	0
Total	40	38	2	2

RICHARD S. EDDY,

Chief Constable.

HOUSING.

l'abı	alar statement of work done under the Housing (Inspection) District) Regulations, 1910.	of
	No. of Dwelling Houses inspected under and for the purposes of Sec. 17 13	30
	No. of Dwelling Houses considered to be in a state dangerous or injurious to health II	18
	No. of Dwelling Houses the defects in which were remedied without the making of Closing Order	31
	No. of representations made to the Local Authority with the view to the making of Closing Order	13
	No. of Closing Orders made	13
	No. of Dwelling Houses which, after the making of Closing Order, were put in a fit state for human habitation	I
	No. of Houses demolished	4
	General character of defects found to exist : Defective drain	

age, unpaved yards, inadequate ventilation to living and sleeping rooms, etc.

A large amount of time has been spent this year on the inspection of Green Lane and its improvement where possible.

The work is hampered as before by the scarcity of houses fit for habitation whose rent is within the means of the labourer.

The Yeo Vale estate provided some houses whose rents were very moderate, but recently there has been a rise in these rents, and, consequently, the occupiers have in some instances migrated to other parts of the town.

Some new houses are building and to be built on this estate, which should be suitable for the working classes, but the situation is • by no means ideal, since the ground on which they are built is a reclaimed marsh, and is still liable to floods.

Three cases of over-crowding have been abated.

(C.) SANITARY ADMINISTRATION OF THE DISTRICT.

The Sanitary Inspector's report is enclosed elsewhere, and from it it will be seen that a very large amount of work has been done during the year. The Clerk of the Works continues to do the drain testing for new construction, and this plan is a success, as it sets Mr. Hill free for more important duties connected with sanitation.

HOSPITAL ACCOMMODATION

Is provided for 18 patients in 3 wards. This is sufficient in numbers for the needs of the town, but the Hospital is an old prison converted at different times, and the site is not ideal for the purpose. The Council have received no further communication with regard to the joint hospital foreshadowed by the County Medical Officer, and so at present are obliged to do what they can with the present building. At the present time alterations are being made to improve the entrance for patients, and provide for a lift, so as to avoid carrying them up an awkward staircase.

A Joint Hospital would be an enormous improvement for this district, since it would be always open for the reception of patients; whereas at the present time should, the Hospital be closed, there is always a tendency to accept any form of makeshift isolation rather than re-open the Hospital.

The Hospital has been opened twice this year, once for the reception of a scarlet fever case occurring in business premises, and once to take in an enteric living in lodgings.

There is no accommodation in the district for small-pox patients. The matter has received considerable attention from the Council, and at one time a site had nearly been acquired. But, owing to local and sentimental opposition, the scheme fell through. However, the Council are fully alive to the importance of this question, and are agreed that some provision must be made.

With an estuary such as the Taw there could be no difficulty in providing a Hospital Ship for such cases.

LOCAL & ADOPTIVE ACTS IN FORCE WITHIN THE BOROUGH. LOCAL ACTS.

Barnstaple Market Act, 1852, Provisional Order 1907, Partially repealing and altering above.

ADOPTIVE ACTS.

Public Health Amendments Act, 1890, Parts 2, 3, 4 and 5. The whole of Public Health Amendment Act, 1907, except Sections 48, 51, 68, 78, 82, 84, 85, 91, 92, 93, and 94.

CHEMICAL & BACTERIOLOGICAL WORK.

The County Medical Officer still makes all bacteriological examinations necessary for any practitioner, and this assistance to the Sanitary Authority is very greatly appreciated.

(D). PREVALENCE OF AND CONTROL OVER ACUTE INFECTIOUS DISEASES.

The number of cases of notifiable disease during the year is 256. This is a serious increase on last year with 162. But this increase is not so remarkable if 21 cases of tuberculosis other than lung notified this year for the first time are deducted ; and, further, it must be borne in mind that at the end of last year the Borough had just commenced an epidemic of scarlet fever, from which disease the district had been, comparatively speaking, free for three years.

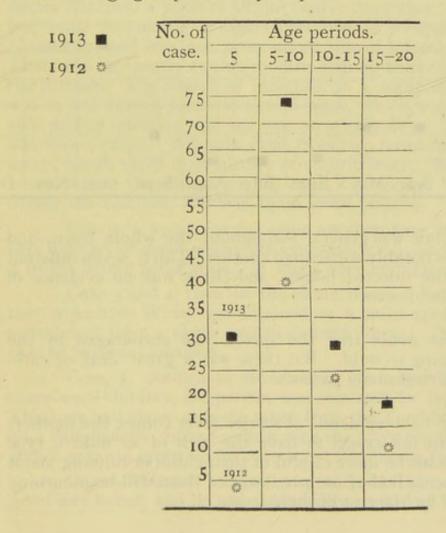
The second se	-	_	_		_	-		-
Disease.	10	1907	1908	1909	1910	1911	1912	1913
Small-pox								
Cholera Diphtheria		16	2	22	13	9	29	29
Erysipelas Scarlet Fever		9 101	- 54	9 7	8	46	8 83	156
Typhus Fever Enteric Fever		13	4	6	6	49	4	6
Relapsing Fever Continued Fever							•••••	
Puerperal Fever Acute Poliomyelitis		·····						I
Cerebro-spinal Meningi Pulmonary Tuberculo Other forms of							38	 37 21
Other forms of ,,								1

SCARLET FEVER.

There has been a very extensive epidemic of this disease during the year—156 cases having been notified. The type of disease has been mild throughout, and only one case has died. At the same time, several more severe attacks have been witnessed at the end of the year, and it is quite possible when the 1914 report comes to be written it will be found that the mortality rate is much higher.

Taking 1912 and 1913 together, we have had 239 cases of scarlet fever and 2 deaths, *i.e.*, 0'7 per cent.

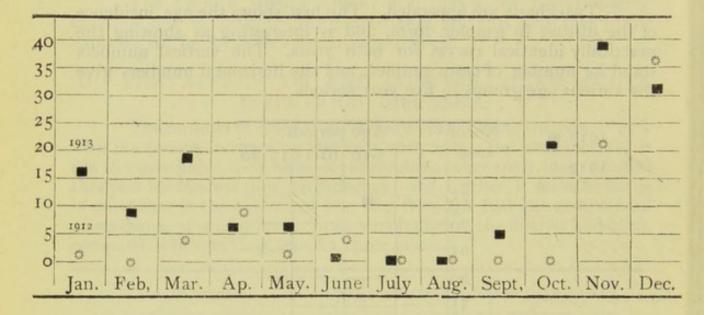
Two charts are appended. The first shows the age incidence of the disease in graphic form, and is interesting as showing the practically identical curves for both years. The vertical numbers stand for number of cases notified, and the horizontal numbers give the various age groups in five year periods



The second chart gives numbers notified each month for both years. The general similarity of the two curves will be seen at a glance.

The vertical numbers are again cases notified ; the horizontal divisions correspond to months. The same signs are used for each year.

If December, 1912, be compared with January, 1913, the effect of the school holiday, prolonged at the request of the Town Council, will be seen.



The epidemic was general throughout the whole town, and no one school was notably worse than another. Thirty-seven different dairies supplied the infected houses, and there was no evidence of milk spreading the disease.

There is no doubt that the spread was encouraged by the type of disease being so mild. But there was a great deal of carelessness on the part of many parents.

When the next epidemic of scarlet fever comes, the mothers in Barnstaple must not expect to have the luck of so mild a type again, and they must be more careful of their children running about and infecting others. If they are not, some of them will be mourning their carelessness for the rest of their lives.

ENTERIC FEVER.

Six cases have been notified of this disease during the year. There has been no death.

One has been nursed in the Isolation Hospital. The remaining five cases were successfully nursed at home.

One of these cases, a child of two, was unrecognised till the father had contracted the disease. Otherwise there was no evidence of personal infection.

The ages of the cases present two striking anomalies. While 4 cases occurred between the age of 20 and 30, one was in a child of 2, and another in a woman of 64.

One case occurred in February, one each in August, September, and October, two in November.

Case 1, a girl in bed with rheumatic fever for three weeks, had normal temperature for a few days, then a staircase rise, and the doctor obtained a positive Widal twelve days after. This girl was in bed with fluctuating temperatures due to irregular relapses until November, and was not pronounced free of infection till December. That is to say nearly twelve months elapsed before she was free from the disease. The source of infection is a complete mystery. She was in bed during January, second week, which would be her probable date of infection, and she was on a milk diet. The milk supply was investigated. All milk came from two farms four and five miles away, where there is no history of enteric fever. No other case has arisen where the same milk is used. A second Widal was taken during the summer, and was again found positive.

Case 2, a woman at 64, again another case who had been ill this time six or eight weeks before notification, and was in bed for 4 weeks before notification. It was a very atypical case.

Case 3 and 4, both in the same house. Father first notified then a positive Widal was obtained on a child aged 2 who had just convalesced from a vague and ill-defined illness. Doubtless this was case of personal infection.

Case 3, notified in November. A lodger in a house where there were children, the patient was removed to Isolation Hospital. This man had eaten mussels taken from the Torridge, near Bideford, on a date exactly corresponding with the probable date of infection, and it is quite probable he contracted the disease from this source.

Case 6, this was a man living with his wife alone, and in a good size house, and he was successfully treated at home.

ACUTE POLIOMYELITIS.

One case of this disease was notified on the 12th February. The child aged 13 had been ill a week, sickness, pain in head, not kept to bed for the first 5 days so that onset was very gradual. On the fifth day she began to complain of pain in the leg. No nasal catarrh no hyperarsthesia, reflexes brisk, all symptoms particularly limb pains increased for 2 days, until on the 12th of February, she had pain in the neck, slight retraction, legs could hardly be moved, reflexes obtained slightly and with much difficulty, considerable spasm of left sterno-mastoid muscle, respirations shallow and diaphragm moving badly.

Patient was successfully nursed at home and completely recovered. The other children were sent away and kept under daily observation.

DIPHTHERIA.

There have been 29 notifications of this disease with 1 death. The majority of these cases have not been severe. Antitoxin has been supplied by the Sanitary Authority. No one school has been more seriously affected than another. 2c different dairies have supplied the milk. Personal infection has been the most potent cause of spread.

The age incidence of the disease was as follows :---

Under 5 yrs.	IO	15	20	25	30	
10	5	5	3	5	Ι	and 1 case 33. 44 & 69
						respectively.

SMALL Pox.

No case of this disease has been notified.

The number of unvaccinated children still steadily increases; so that should a case arise here there will undoubtedly be a highly susceptible population open to its ravages.

PUERPERAL FEVER & CEREBRO SPINAL MENINGITIS.

No cases notified.

NON-NOTIFIABLE DISEASES.

MEASLES.

Very few cases have occurred of this disease or of whooping cough. A few of the latter have arisen at the end of the year.

ANTHRAX, GLANDERS, & TETANUS.

No case.

DIARRHŒA & ENTERITIS.

Seven deaths have occurred from this cause. Cases were fairly common in the late summer and early autumn of the year.

School intimations of disease are received and the schools visited when necessary; they are of very great help to the Medical Officer of Health.

DEATHS FROM ZYMOTIC DISEASES.

The following table gives the deaths occurring from the seven principal Zymotic diseases during the last seven years :---

Zymotic Dis	seases	•	1907	1908	1909	1910	1911	1912	1913
Diarrhœa			3	2	I	I	7	1	7
Diphtheria			I		I			3	I
Measles				2		I	8	I	
Scarlet Fever		7		10000				I	I
Typhoid Fever				2			9		
Whooping Cou			15			the second s			
Total for each y	vear		19	8	2	10	24	7	9

(E) PREVALENCE OF AND CONTROL OVER TUBERCULOSIS.

During the year 34 cases of pulmonary tuberculosis have been notified, and 21 other forms of tuberculosis.

At the beginning of the year the Medical Officer of Health visited all cases notified and made all enquiries necessary as to history and probable source of infection. Instructions were given as to prevention of infection to others, and the proper methods of dealing with expectoration when present. Contacts were examined where possible, and the patients visited occasionally to see that the instructions were carried out.

It was then found that the tuberculosis officer appointed by the County Council was travelling over the same ground. The two officers consulted together, and decided that such over-lapping was a needless inconvenience to the patients and their friends, and that it might help to make notification of the disease unpopular.

The Tuberculosis Officer finally volunteed to keep your Medical Officer informed of anything that concerned the Sanitary Authority, and since then he has made all the visits necessary after notification, and has referred matters requiring executive action to the Medical Officer of Health for him to report to the Town Council.

Houses which have been occupied by phthisical patients who have left or died are thoroughly disinfected and cleansed. In one house where a phthisical patient had left unknown to anyone until the Tuberculosis Officer had called and found a new occupier in possession, it was found by your Medical Officer that in spite of thorough cleansing on going in, the visits of the two officials had induced two more thorough scrubbings, and it was felt that further disinfection was unnecessary.

The Borough of Barnstaple not being a County Borough, has not provided any sanatorium or dispensary for the treatment of tubercle. The County have, however, provided a dispensary within the Borough, which will shortly be opened for the treatment of patients.

At the present time there is still much difficulty in getting sanatorium treatment for insured persons.

Considering they have been entitled to such benefit for over a year, it is to be hoped that proper provision will shortly be made.

(F.) INVESTIGATIONS OF OTHER DISEASES.

CANCER.

There have been 24 deaths from Cancer, 17 of which were over 45 years of age, the largest number since 1907.

Year	1908	1909	1910	1911	1912	1913
Deaths	19	16	19	20	17	24

PNEUMONIA.

Not extensively prevalent. 7 deaths from Pneumonia, 4 from Bronchitis, *i.e.* 11 against 32 for the Respiratory diseases last year.

RHEUMATIC FEVER. No deaths.

INFLUENZA.

4 deaths against 8 last year. It may again be noticed that Influenza put in an earlier appearance than usual.

Syphilis and Gonorrhœa are not prevalent in the Borough.

(G). INFANT MORTALITY.

23 Infants under 12 month have died this year, this is out of 246 births. Last year 23 died out of 296. The death rate is thus 93.49. Last year's was 77.70. The rate for the 145 smaller towns in England and Wales is 112.0, so that the Barnstaple infant mortality is still keeping low. It will be seen however that what raises the rate from last year is the very serious decrease in the birth rate.

Attention is again drawn to the difference between the death rates in legitimate and illegitimate children.

Legitimate	chlldr	en.	Illegitimate	childr	en.
Births		227.	Births		19.
Deaths		20.	Deaths		3.
Death rate		88.1	Death rate		160.5 per 1,000.

The contrast is not so extreme as last year, but it is even now nearly 2 to 1.

The worst district in the Borough this year has been Pilton and Yeo Vale, and the next Derby in which is included all on the south side of the Yeo to Boutport street and including Bear street.

Ophthalmia Neotorum becomes notifiable on April 1st, 1914.

Inspection of Midwives has been put under a special Inspector and it now has nothing to do with the Barnstaple Sanitary Authority.

(H) VITAL STATISTICS.

BIRTHS.

246 births were registered, giving a birth rate of 1690.

The birth rate for England and Wales (145 smaller towns) is 23.95

This is far the lowest birth rate the Borough has ever experienced.

Year.	Number of Births.	Barnstaple Birth Rate per 1000 Living.	England & Wales Birth Rate per 1000 Living.					
1908	345	23.92	25.6					
1909	312	21.57	26.5					
1910	278	19.16	24.8					
1911	300	20'79	24.4					
1912	296	20.40	22.6					
1913	246	16.90	23.95					

Comparison table for the last 6 years :

Rates for the quinquennium—1901 to 1905 ... 22.19 1906 to 1910 ... 20.97

DEATHS.

The total number of deaths registered was 205. Of these 17 were non-residents occurring in the Borough, and 16 occurred elsewhere and are transferred to this district. 204 is thus the number of nett deaths for Barnstaple. The death rate is 14.01.

Years.	Nett Deaths at all ages belonging to the district.	Barnstaple Death Rate per 1000.	Death Rate of England & Wales (145 smaller towns) per 1000 living.
1908	191	13.24	14.7
1909	191 187	1201	14.5
1910	216	14 89	13'4
1911	234	16.12	14.5
1912	227	15.64	12.1
1913	204	14. 0	13.4

A comparative table is appended for the last six years

Longevity Table	Deaths	over 65.	
Age period.			of deaths.
65-70			16
70-75			26
75—80			18
80—85			17
85-90			4
90-95			3
			-
			84

DEATHS IN PUBLIC INSTITUTIONS.

	Residents.	Non-Residents.
North Devon Infirmary	14	7
Barnstaple Workhouse	13	17

HERBERT C. JONAS, M.D., B.S.,

M.O.H.

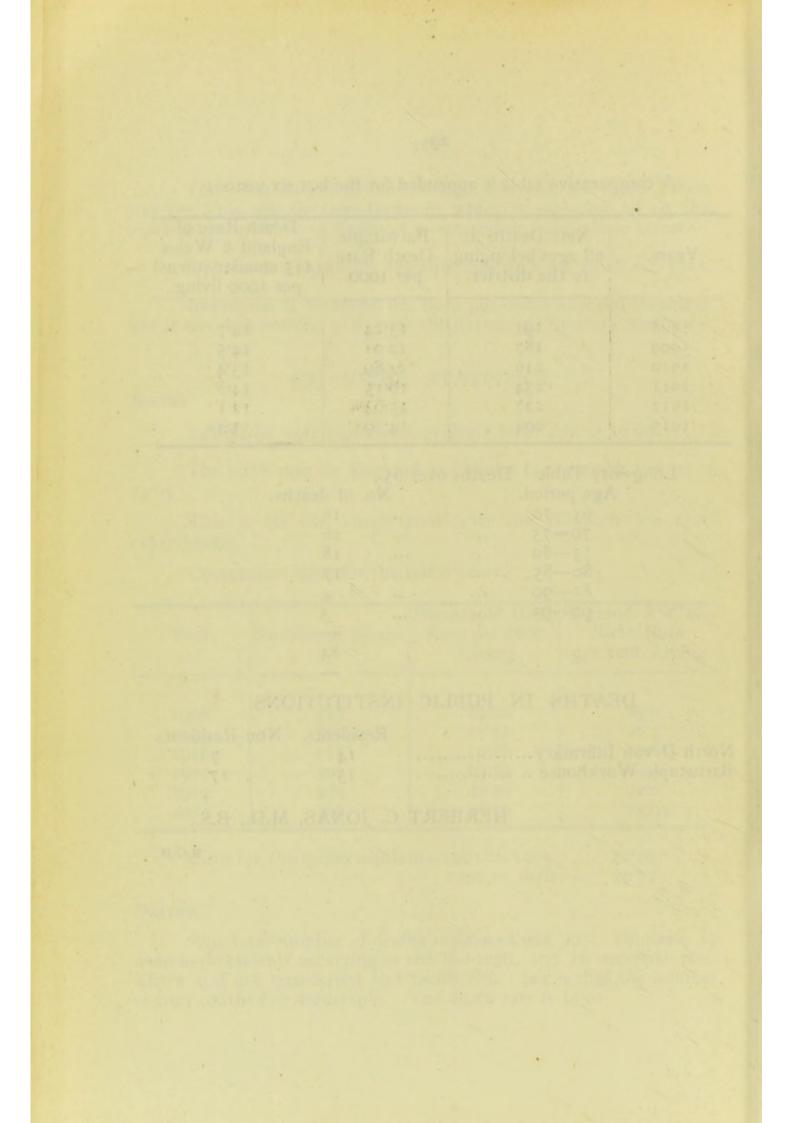


TABLE I.

Table showing Vital Statistics of the whole District during 1913 and Previous Years.

	Births.					Deaths istered	Transf Dea	ferable ths.	Nett Deaths belonging to the District							
V	estimated to middle		Ne	ett.	in the	District.			Unde	er 1 year.	At all Ages					
Year.	of each year. vorrected	No.	Rate.	of Non- residents registered in the District.	of Resi- dents not registered in the District	No. Rate per 1000 Nett Births		No.	Rate							
		1														
1908	14418	345	345	23.92	211	14.63	20		30	86.95	191	13.24				
1909	14462	312	312	21.57	224	15.85	37		22	70.51	187	12.92				
1910	14506	278	278	19.16	234	16.13	18		33	118.70	216	14.88				
1911	14484	300	300	20.70	253	17.46	28	9	32	106.66	234	16.18				
1912	14508	296	296	20.40	259	17.85	36	4	23	77.70	227	15.64				
1913	14552	246	246	16.90	205	14.21	17	16	23	93.49	204	14.0				

Area of District in Acres (exclusive of area covered

by water) 2359

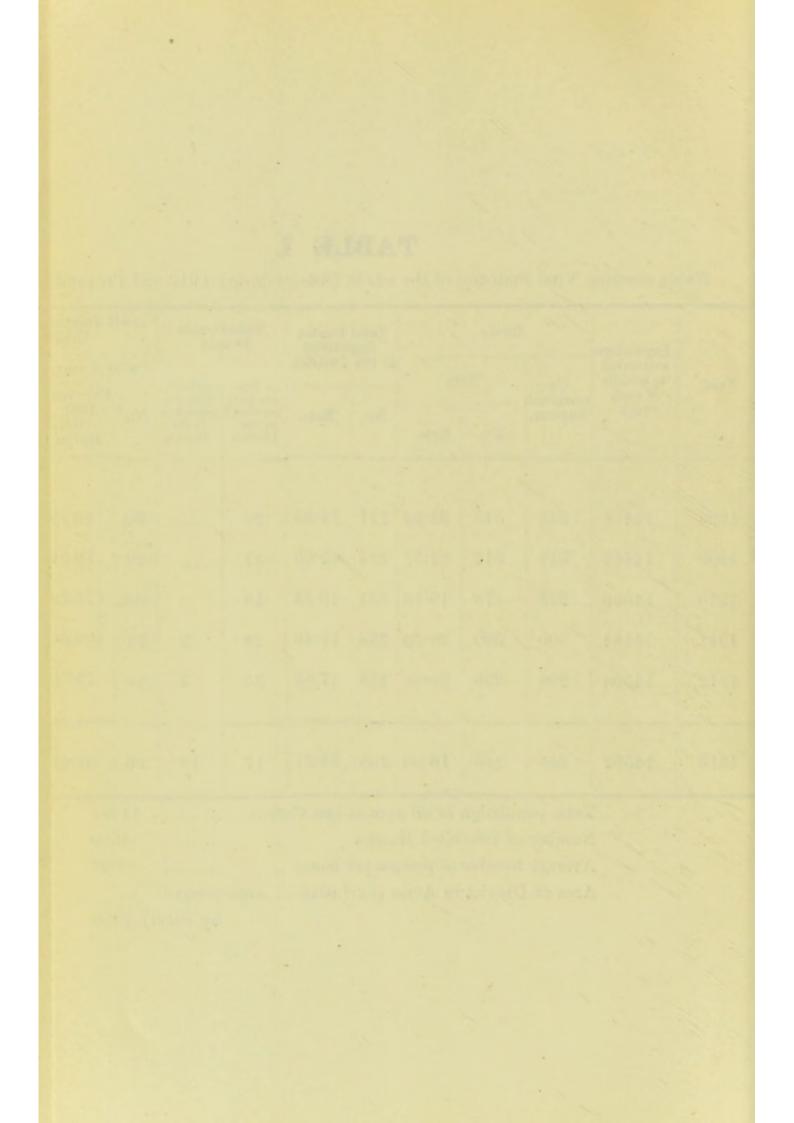


TABLE II.

Cases of Infectious Diseases notified during the year 1913.

		Cases	notif	fied in	n who	le di	strict.	
Notifiable Diseases.	At all Ages	Under 1 year	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and above
Small-pox								
Cholera								
Diphtheria (including Membranous croup)	}29		7	11	6	4		1
Erysipelas	6				1	2	1	2
Scarlet Fever	156	2	30	104	11	9		
Typhus Fever								
Enteric Fever	6		1		2	2		1
Relapsing Fever								
Continued Fever								
Puerperal Fever Cerebro-spinal								
Meningitis								
Poliomyelitis Pulmonary Tuber-	1			1				
culosis	37			2	9	19	6	1
Other forms of Tuberculosis	21	•••			8	7	6	
Totals	256	2	28	118	37	43	13	5

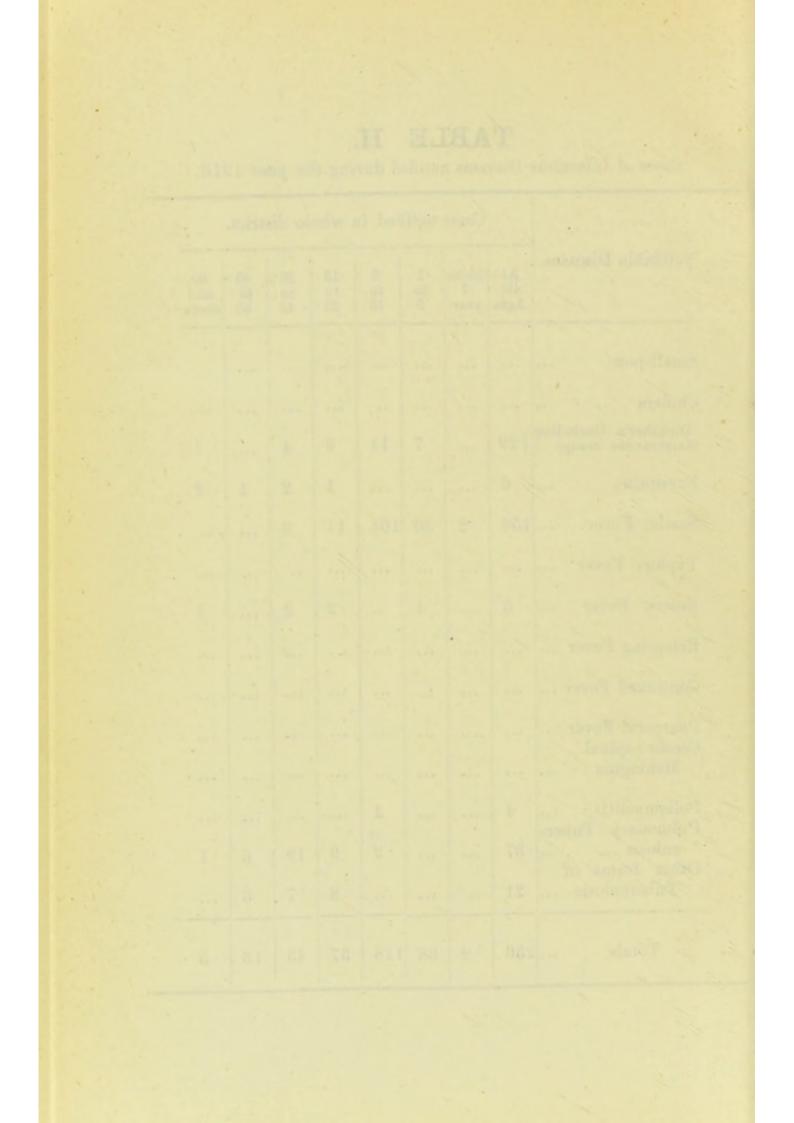


TABLE III.

Table showing the Causes of, and Ages at, Death during the Year 1913.

		Death	ı in or bel	onging to	whole Di	strict at s	ubjoined	ages.		Total Deaths whether of
Causes of Death.	All Ages.	Under 1 year.	1 and under 2	2 and under ö	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upwards	'Residents or 'Non- Residents, in Public Institutions in the District.
Enteric Fever										
Small-pox										
Measles	1 miles									
Scarlet Fever	1				1					
Whooping Cough										
Diphtheria and Membranous Croup					1					
Influenza	1						1	1	2	
Erysipelas	and the second s									
Phthisis, (Pulmonary Tuberculosis					1	3	8	5	2	
Tuberculous Meningtis										
Other Tuberculous Diseases	C					2		3	1	
Cancer, Malignant Disease	91					1	6	7	10	
Rheumatic Fever	A Street F									
Meningitis	9	1			1					
Organic Heart Disease	14	1					1	. 4	8	
Bronchitis	4							2	2	
Pneumonia	7	1	1				1	3	1	
Other Diseases of Respiratory Organ										
Diarrhœa	7	6	1							
Appendicitus and Typhlitis .	1						1			
Cirrhosis of Liver	0			1	1			1	1	
Alcoholism									1	
Nephritis and Bright's Disease	1.1							7	4	
Puerperal Fever		·								
Other Accidents & Diseases of Preg	-								-	
nancy and Parturition	1						1			
Congenital Debility, including Pre										
mature Birth	3	3								
Violent Deaths excluding Suicide	. 2				1			. 1		
Suicides	. 3.						1	2		4
Other Defined Diseases	. 89	11	1	2	1	4	2	15	53	
Diseases ill-defined or unknown	• • • • • •									
All Causes	204	28	3	2	6	10	22	54	84	

TABLE II.

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TABLE IV.

Table showing Infantile Mortality during the year 1913. Deaths from stated causes in Weeks and Months under One Year of Age.

Total Deaths under ,One Year.	::		:	:	:	:	: :	: :	:	:			I.	:	1	:	:	- 0	ಂಪ	:	: '	1	:	:-	•	: •	20	15	23	
sdinom 21-6	: :	1	:	:	:	:	: :	:	:	:	:		1	:	:	:	:	:	: :	:	: '	-	:	: :		:	:	::	2	227 19 20
adtnom e-0	: :	1	:	:	:	:	: :	:	:	:	:		:	:	1	:	:		-	: :	:	:	÷	: :		:	:	:-	4	
sdtaom 8-6	: :	1	:	:	:	:	: :	:	:	:	:		:	:	:	:	:	:	: -	:	:	:	:	: :		:	:	: -	67	
sdtnom 8-1		1	:	:	:	:	: :	: :	:	:	:		:	:	:	:	:	:-	- 6	:	:	:	:.	:		:	:	6) 6)	2	
I month.	: :		:	:	:	:	: :	:	:	:	:		:	:	:	:	:	:-		:	:	:	:	:-	•	: •	co.	: **	8	itimate gitimate legitimate infants
3–4 weeks.		1	:	:	:	:	: 1	:	:	:	;		:	:	:	:	:	:•	-	: :	:	:	:	:	:	:	:	:=	5	itimate egitimate legitimate infants
2-3 weeks.	1 : :	1	;	:	:	:	: :	: :	:	;	:		:	:	:	:	:	:	: :	:	:	:	:	:		:	:	: :	:	legitimate illegitimate of legitimat
l-2 weeks.	1 : :		:	:	:	:	: :		:	:			:	:	;	:	:	÷	:•	: :	:	:	:	:	:	:"	-	: -	3	
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CAUSE OF DEATH	All (Certified Causes (Uncertified		Small-pox	Chicken-pox	Measles	e	Uphtheria : Croup.		Erysipelas	Tuberculous Meningitis	Abdominal Tuberculosis	Other Tuberculous	(Diseases	Meningitis		Laryngitis	Bronchitis		Enteritis		Syphilis		Suffocation, overlaying	Injury at Birtin Atelectasis	f Congenital	Malformations	A Premature Birth	(Marasmus Other causes	Totals	Births in the year, "Deaths in the year

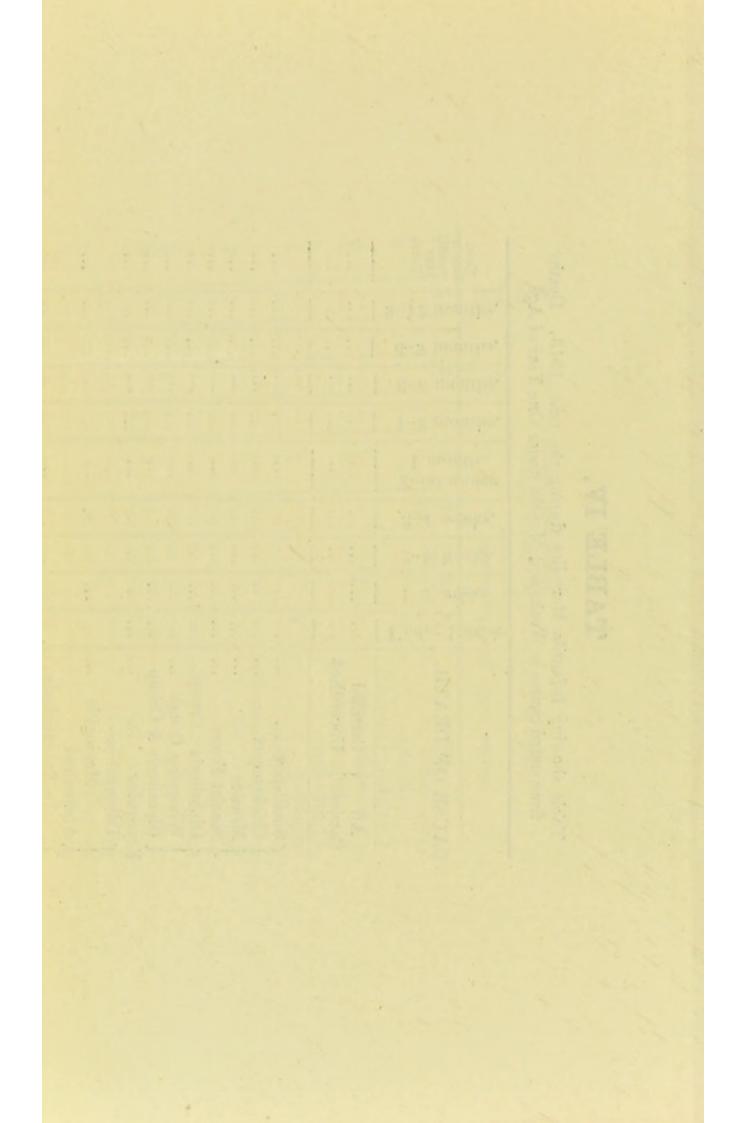


TABLE V.

Report of Factories, Workshops, Laundries, Work-places, and Home-work.

1.--INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspector of Nuisances.

				IN ULUDEL OF	
Premises.			Inspections.	Written Notices.	Prosecutions.
Factories (Including Factory Laundries)	:		Nil	Ni	Nil.
Workshops		:	102	Nil	TIN.
Workplaces	included in	:	81	TIN	.IIN
	Total	:	120		0

2.-DEFECTS FOUND.

HORS - S. STREE WATTER	NURK	Number of Defects.	Defects.	Number
Particulars.	Found.	1.000	Remedied. R.M.Inspector	of Prosecutions.
Nuisances under the Public Health Acts :				
Want of Cleanliness	9	9		
Want of Ventilation	2	2	:	
Overcrowding	:	:		
Want of Drainage of Floors	:	:		
Other nuisances		67		
(insufficient	1	1	:	:
Sanitary Accommodation & unsuitable or defective	4	4		
not separate for sexes	1	1		:
Offences under the Fuctory and Workshop Act :				
Illegal occupation of underground bakehouse (s. 101)	:	:		
Breach of special sanitary requirements for bakehouses (ss. 97 to 100)		1		
Other offences (Excluding offences relating to outwork which are included in Part 3 of this	:	:	;	:
report). Total	18	17		:

3.-HOME WORK.

50						129	:	:	ЭГ	1 Registe	shops or	Total number of Workshops on Register	Total num
	No underground Bakehouses	ndergrou	No u	l Bake- 101)	Underground Bake- houses (s. 101)								
ю	:		:	:	Other	20	:	:	:	:	:	:	Bakehouses
:	H.M. Inspector	-	y and W	e Factory 5).	not under the Factory and Work- shop Act (s. 5).	20	:	:	:	:	:	Trades	Various other Trades
-	Inspector Reports (of action	~~	tters ren s remed	spector a blic Hea	Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but	14		:	:	:	:	Smithy	Plumbing and Smithy
	···· ···			TOO)	A office to have been in	23	:	:	:	rs, &c.	et Make	oiners, Cabin	Carpenters, Joiners, Cabinet Makers,
:	Failure to affix Abstract of the Factory and Work-	f the Fac	ostract of	affix Ab	Failure to	20	:	:	:	:	:	:	Tailors
	Factories :	pector of j	I.M. Insp	fied to H	Matters notified to H.M. Inspector of Factories :-	32	:	:	:	:	:	und Milliners	Dressmakers and Milliners
No.			Class.			No.	e year.	at the end of the year.	t the er	131)	Register (s.	the	Workshops on
	MATTERS.		OTHER	5.—0T	5	'	OPS.	WORKSHOPS.	NOR		TER	-REGISTERED	4
1					5 - 01	EOI	00	0UN	b				
						•				t a		ure and Upholstery	Furniture and Uphols
	1				19	1	0	ц	23	0	6	Apparel king, &c	Wearing Apparel Making, &c.
	Im	Instances.	send lists.		or sending lists.	Work- men.	Con- 1 Worl tractors. men.	Lists.	Work- men.	Con- tractors, men.	Lists.		
	108. Sections 109, 110.	Premises, Section 108.	-	to keep	on Occupiers or Failing	year.	Once in the year.	Once	year.	Twice in the year.	Twice	Nature of Work.	Nature
m	-	Outwork in Unwholesome	ations.	Prosecutions.			ployers	Lists received from Employers	ceived f	Lists re			
	2				ion 107.	s, Secti	ers' List	Outworkers' Lists, Section 107.	0				

TABLE VI.

Table showing the Rainfall for each month of the year, together with the true mean Temperature for each month of the year, as recorded at the

Athenæum, Barnstaple, by THOMAS WAINWRIGHT, ESQ.

In Latitude, 50° 5" 15' N. In Longitude, 4º 3" 24' W. Height above the sea, 25 feet. Height above the ground, 8 inches.

	Rainfall in inches.	Number of days on which '01 inches or more rain fell.	Maximum Tem- perature.	Minin.um Tem- perature.	Mean Tem- perature.
January	6.33	26	53°	280	43.06°
February	1.23	11	57°	280	43°
March	4.18	26	55°	300	43.610
April	4.17	22	680	340	47.63°
Мау	3.00	19	75°	390	53.510
June	2.52	17	80°	41°	56·90°
July	0-77	13	790	450	600
August	1.08	8	800	410	61.16°
September	2.35	. 16	740	410	58.01°
October	3.48	18	670	31°	53.610
November	5.56	26	60°	29°	48:380
December	3.59	18	55°	24°	43.82°
The Year	38.56	220	30°	240	51.070

Bright Sunshine : Ilfracombe, 1433'5 hours. Woolacombe, 1412.4 hours.

The weather in North Devon during the year 1913, finer than that of its predecessor, but much less fine than that of 1911. of bright and sunny memory, may be described as normal in the aggregate, but with the rain and the temperature abnormally distributed over the months.

RAIN .- The amount measured exceeds that of the preceding 50 years by half an inch, the number of wet days was 220, the annual average for the same period being 188. The amount was in excess of the average by $3\frac{1}{2}$ inches in January, 2 in March, $2\frac{1}{4}$ in April, 2 in November, and smaller amounts in May and June, and the months of February being deficient by $1\frac{1}{2}$ inches. July by 2, August by $2\frac{1}{4}$, October by 1, September and December by smaller amounts.

TEMPERATURE. —The temperature for the year, nearly normal, but while January, February, and March, in the early part of the year, as well as September, October, November and December, were above, June and July were below the average. SUNSHINE. —The number of hours of bright sunshine at Woolacombe was 1412.4. the average there for the preceding 9 years being 1691.1 with 1918.5 in the year 1911, and 1336.5 in 1912. The numbers at Ilfracombe during the three previous years

were nearly the same.

THOS. WAINWRIGHT.

