

**[Report 1911] / Medical Officer of Health, Devon County Council.**

**Contributors**

Devon (England). County Council.

**Publication/Creation**

1911

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DEVON COUNTY COUNCIL.

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# ANNUAL REPORT

OF THE

# COUNTY MEDICAL OFFICER OF HEALTH

FOR THE YEAR

**1911.**

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EXETER :

WM. POLLARD & Co. LTD., PRINTERS AND LITHOGRAPHERS, NORTH STREET  
1912.



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PUBLIC HEALTH DEPARTMENT,  
14, BEDFORD CIRCUS,  
EXETER,

*August, 1912.*

*To the Chairman and Members of the Devon County Council.*

MY LORDS AND GENTLEMEN,

I have the honour to present my Annual Report for the Administrative County for the year 1911. It is not necessary to repeat the reasons for the order in which it is set out, save that I have endeavoured, as well as I can, to arrange it to follow the directions contained in the Order of the Local Government Board made in 1910, the details of which I gave in my last Annual Report.

Last year I was able to report, from statistics, an improvement in the general health of the county, but for this year there is a series of increases of different diseases and their corresponding death-rates, especially among the infectious diseases. Measles have occurred in several parts in a virulent form, causing 158 deaths, against 20 deaths for last year. Diphtheria has claimed 57 victims, against 49 for the previous year, and this in spite of the free use of bacteriology and antitoxin serum. Typhoid fever has caused 27 deaths, against 10 for last year; and in addition, the county was visited in the summer by a severe epidemic of acute poliomyelitis. Sixty deaths were registered from influenza, against 94 for the previous year. The only bright point is, that although there were more cases of scarlet fever reported, there were only



2 deaths against 8 for the preceding year. The long drought, during June, July and August, had much to do, as in other parts of England, with causing an increase of some of the diseases; but the failure to show an improvement should be a call for the different local authorities to increase their activities in providing the necessary weapons for combating these diseases. In particular do I mention improved water supplies, the provision of isolation hospitals, disinfecting appliances, and means for the rapid destruction of decomposing organic matter.

Unfortunately, also, I have to report an increase in the incidence of tuberculosis and cancer: from the former there were 562 deaths, and from the latter 500 deaths. We know of nothing that can be done to prevent this latter increase, for the medical profession is, at present, in spite of active research, in complete ignorance as to the cause and propagation of the disease. For the former, this coming year opened with brighter prospects. The Government has come forward with a determination to use all possible means to prevent any further inroads of this terrible scourge among all classes of society. We have now compulsory notification of all cases of pulmonary tuberculosis. This notification was made complete by the recent Tuberculosis Regulations of 1911. Large sums of money are to be provided by the Treasury and Insurance Act, 1911, for the provision of sanatorium treatment, and it only remains for the long-looked for Pure Milk Bill to be placed on the Statute Book, together with a Rural Housing Act, to complete the armour for the fight against this disease. So far the Devon County Council has led the van from the educational side, and it is to be hoped that it will not fall from its high position in now carrying out the administrative measures of attack.

At the end of July a report from Dr. Gray, medical officer of health for Holsworthy, reached this office containing an account of several cases of disease suspicious of cerebro-spinal fever in North Devon. At the same time he reported

the matter to the Local Government Board who, at once, decided to instruct one of their inspectors (Dr. R. J. Reece), staying at Bude at the time, to investigate and report on the outbreak. He commenced his duties without delay, and was fully occupied with his investigations until August 26th. Until September 10th, when the epidemic subsided, he was still informed of the further progress of the disease by the County Medical Officers of Cornwall and Devon, as the disease was found to be epidemic in both counties. During this time, Dr. Reece investigated 154 cases in Devon and Cornwall, of which 34 were fatal. The numbers and the distribution of cases reported in Devon are contained under the infectious disease section of this report, page 23.

A special Report, containing the results of Dr. Reece's investigations and conclusions, was published by the Local Government Board in December 1911. Dr. Reece minutely investigated the various attendant conditions which seemed likely to bear upon the prevalence of the disease. Materials for pathological examination were obtained, as far as possible, and examined by Dr. Mervyn Gordon (Pathologist to the Local Government Board), who found typical lesions of poliomyelitis in the spinal cords, also that the characteristics of the specimens of cerebro-spinal fluid obtained from numerous patients were consistent with a diagnosis of poliomyelitis but not of cerebro-spinal fever. Moreover, material from two of the fatal cases was sent to Professor Levaditi (of the Pasteur Institute of Paris), who found it produced typical acute poliomyelitis, on inoculation, in monkeys.

With regard to the distribution of the disease, although some cases occurred in the larger villages or small towns, the greater number occurred in small villages, or groups of houses, and often in isolated farmhouses and cottages. Of the 134 cases reported, 32 cases with 6 deaths were reported in fourteen of the thirty-four urban districts; whilst 102 cases, with 17 deaths, were reported in fourteen of the eighteen rural districts. Of the causation of the disease little is at present known,

except that it is due to a virus that is ultra-microscopic and capable of passing through the best filter. The possible conditions that favour or cause its spread were fully investigated, as suspicions arose in regard to the conveyance of the disease either by dust, insect-bites, clothes, house flies, sickness among animals, and personal contact, either through direct association with the actual sufferer or by those (carrier cases) who had been in contact with the patient but who were themselves not affected. Several striking instances occurred of this latter kind in different parts of the county, especially at Newton Abbot, where a man had been visiting the infected districts in North Devon and Cornwall as a traveller. He had a family of four children (two boys and two girls). On his return home he slept with the two boys, both of whom within five days were smitten down with severe attacks of poliomyelitis with marked paralysis. The two girls, who slept with their mother, escaped the disease altogether. Again, in North Devon, in the small village of Stoke Rivers, there was a striking instance of the spread of the disease among school children. Three children in one family had an attack of the disease during the summer. When the school opened on September 4th, two of the children were in attendance, and within a short period all but ten of the forty children on the register were infected.

I was with Dr. Reece in many of his investigations, and I think suspicion rested chiefly on insect bites and human "carriers" as being the most likely means of transmitting the virus from one person to another. Cases that may still occur will be thoroughly investigated by the Local Government Board, who now possess the necessary outfit, instead of having to resort to the means possessed by a friendly nation.

In connection with Dr. Reece's report, he makes strong comments on the sanitary administration of the county as illustrated by the outbreak. He particularly condemns the absence of isolation hospitals in order to prevent the spread of infectious diseases, to allay panic, and to avoid injury to

the good reputation of the many health resorts ; allusion is also made to the great reluctance on the part of many of the local authorities to do anything that would involve expenditure of money, whilst the unsatisfactory character of the organisation of the sanitary staff of the different local authorities for the prevention of infectious diseases is also mentioned. He states at the conclusion of his report : " I am of opinion that a revision of the previous policy of sanitary administration, the provision of suitable hospital accommodation, and the appointment of expert medical officers of health are matters of imperative importance, if the County of Devon is to maintain its reputation as a health resort."

There are one or two points in connection with my report that I would like to emphasise. One is the action of the Local Government Board in the matter of a combination of several districts in the east of the county for a whole-time medical officer. All enquiries and preparations were made for this desirable object, against which nothing could be said, and which was looked upon by its officers as a very necessary measure, when at the last moment, for some unaccountable reason, the Provisional Order for carrying this into effect was withdrawn. I would draw the attention of the Council to several interesting facts revealed by the census returns quoted on page 13.

The question of house accommodation should receive the earnest attention of the council, for there is a general want of proper houses for the working classes throughout the county. Many in the north-west consist of hovels, which are a disgrace to our present-day civilization. In a recent visit, with a Local Government Board inspector, to the Holsworthy district, we inspected about fifty houses and about two of them, only, were really fit for human habitation. Unless the different local authorities make use of the provisions of the Act of Parliament for remedying these matters, I would suggest that local enquiries be made by the county council with a view to enforcing this Act.

In the matter of the water supply of the county I have mentioned in my former reports, how much better the villages in the south are provided with a sufficient and wholesome water supply than those in the north. The main portion of the rural part of the north is dependent on surface wells with all their disadvantages. At the present time, the school teachers, school nurse, medical inspectors, and the county medical officer are preaching the gospel of cleanliness in the homes and schools, and yet the means for carrying out such instructions are not forthcoming in many cases, nor can they be until local authorities act up to their statutory duties.

Under the section dealing with the Food and Drugs Acts, I have suggested that, with a view to prevent the sale of unwholesome meat, some arrangement should be made for courses of lectures and demonstrations, by which the sanitary inspectors of the county could make themselves proficient in recognising diseased meat. At present, as far as I can find out, only two of the fifty-five inspectors are qualified for the work.

The bacteriological work of the county has, I believe, met with entire approval, and is more and more appreciated as time goes on ; especially will it be so now, by the compulsory notification of all cases of phthisis.

I have carefully gone into the matter of dealing with infectious diseases, and I am afraid that as long as the county remains so unprovided with isolation hospitals, so long will the incidence of large epidemics of preventable diseases be in evidence, with all their attendant evils. I have enclosed a map showing how the whole county could be divided up for this purpose, and I do trust the council will see its way to make a beginning in one at least of the areas.

During the year there have been several changes in the *personnel* of the office of medical officer of health in many of the districts. These have occurred at Ottery St. Mary, Honiton (rural), Buckfastleigh, Totnes (urban), Exmouth, Sidmouth, Tavistock (urban), Great Torrington, and Bideford (rural).

Owing to the death, at the end of the year, of Dr. Webb, the medical officer of health for the two Kingsbridge districts, I have been unable to obtain any reports or tables of statistics for these districts.

At the beginning of the year, owing to the alteration in the registration districts, the Registrar-General made each of the offices of all county medical officers a clearing house for the final assignment of the registration of all incoming and outgoing deaths of visitors and people dying in institutions in England and Wales, so that each case could be assigned to its proper sanitary district. This procedure has caused, (from the large size of the county), a great deal of extra clerical work in this office.

In conclusion, I have to again thank the members of the different committees and the officials of the different local authorities, to whom I have to go for information and assistance, for their great kindness and valuable help during the discharge of my duties.

I am,

My Lords and Gentlemen,

Your obedient Servant,

GEORGE ADKINS,

*County Medical Officer.*

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## LIST OF MEDICAL OFFICERS OF HEALTH.

District.	Name.	Date Report received.	Report printed or otherwise.
		1912.	
URBAN.	Ashburton ..	Dr. S. C. Jellicoe ..	18th March .. Printed
	Bampton ..	.. T. W. W. Bovey ..	5th March .. Printed
	Barnstaple ..	.. H. C. Jonas ..	18th March .. Printed
	Bideford ..	.. M. R. Gooding ..	22nd March .. Printed
	Brixham ..	.. G. B. Elliott ..	2nd August .. Printed
	Buckfastleigh ..	.. S. R. Williams ..	14th March .. Printed
	Budleigh Salterton ..	.. C. Beesley ..	11th March .. Printed
	Crediton ..	.. L. H. Moiser ..	23rd March .. Printed
	Dartmouth ..	.. J. H. Harris ..	23rd April .. Printed
	Dawlish ..	.. H. B. Mapleton ..	2nd April .. Printed
	Exmouth ..	.. E. L. Sturdee ..	1st May .. Printed
	Heavitree ..	.. J. F. Wolfe ..	19th April .. Printed
	Holsworthy ..	.. W. G. Gray ..	23rd May .. Typewritten
	Honiton ..	.. T. W. Shortridge ..	13th March .. Typewritten
	Ilfracombe ..	.. E. J. Slade-King ..	5th March .. Printed
	Ivybridge ..	.. C. E. Cooper ..	7th March .. Printed
	Kingsbridge ..	.. W. H. Webb ..	(deceased)
	Lynton ..	.. H. J. Edwards ..	16th March .. Typewritten
	Newton Abbot ..	.. H. B. Mapleton ..	2nd April .. Printed
	Northam ..	.. E. J. Toye ..	17th February .. Typewritten
	Okehampton ..	.. E. H. Young ..	23rd April .. Printed
	Ottery St. Mary ..	.. J. A. W. Ponton ..	5th March .. Manuscript
	Paignton ..	.. C. W. Vickers ..	9th March .. Printed
	Salcombe ..	.. V. W. Twining ..	4th March .. Printed
	Seaton ..	.. H. A. Pattinson ..	3rd February .. Typewritten
	Sidmouth ..	.. W. H. Peile ..	23rd March .. Printed
	South Molton ..	.. W. H. Wigham ..	30th January .. Typewritten
	Stonehouse, East ..	.. T. Leah ..	14th March .. Printed
	Tavistock ..	.. W. R. Griffin ..	7th March .. Printed
	Teignmouth ..	.. F. C. H. Piggott ..	16th March .. Printed
	Tiverton ..	.. R. B. Cullen ..	15th May .. Typewritten
	Torrington, Great ..	.. H. C. Parsons ..	30th April .. Typewritten
	Torquay ..	.. T. Dunlop ..	28th March .. Printed
Totnes ..	.. H. R. Allingham ..	7th March .. Printed	
RURAL.	Axminster ..	.. W. Langran ..	17th February .. Printed
	Barnstaple ..	.. J. R. Harper ..	17th February .. Printed
	Bideford ..	.. L. B. Betts ..	27th March .. Printed
	Broadwoodwidge ..	.. C. G. Gibson ..	16th May .. Printed
	Crediton ..	.. L. H. Moiser ..	28th February .. Printed
	Culmstock ..	.. W. H. Date ..	23rd April .. Printed
	Holsworthy ..	.. W. G. Gray ..	22nd May .. Typewritten
	Honiton ..	.. D. Steele-Perkins ..	7th February .. Printed
	Kingsbridge ..	.. W. H. Webb ..	(deceased)
	Newton Abbot ..	.. H. B. Mapleton ..	2nd April .. Printed
	Okehampton ..	.. E. H. Young ..	24th February .. Printed
	Plympton St. Mary ..	.. S. Noy Scott ..	4th April .. Printed
	South Molton ..	.. H. M. Body ..	12th March .. Printed
	St. Thomas ..	.. L. P. Black ..	2nd May .. Printed
	Tavistock ..	.. C. C. Brodrick ..	18th March .. Printed
	Tiverton ..	.. J. R. R. Pollock ..	28th February .. Printed
	Torrington ..	.. E. J. Slade-King ..	28th February .. Printed
	Totnes ..	.. S. C. Jellicoe ..	7th May .. Printed

## LIST OF MEDICAL OFFICERS OF HEALTH—continued.

District.	Name.	Date Report received.	Report printed or otherwise.	
PORT.	Barnstaple ..	Dr. M. R. Gooding ..	1912. 4th March ..	Manuscript
	Dartmouth & Totnes ..	„ J. H. Harris ..	16th March ..	Typewritten
	Exeter ..	„ E. L. Sturdee ..	15th June ..	Typewritten
	Kingsbridge and Salcombe ..	„ A. Pearce ..	3rd February	Manuscript
	Plymouth ..	„ F. M. Williams ..	27th June ..	Printed
	Teignmouth ..	„ F. C. H. Piggott ..	16th March ..	Printed

## LIST OF SANITARY INSPECTORS.

District.	Name.	Date of receipt of Report.	
URBAN.	Ashburton ..	A. Wilson ..	1912. 23rd January
	Bampton ..	W. F. Siddalls ..	7th March
	Barnstaple ..	J. Hill ..	26th February
	Bideford ..	J. Lugg ..	16th February
	Brixham ..	J. H. Lowe ..	28th February
	Buckfastleigh ..	A. Warren ..	10th February
	Budleigh Salterton ..	J. B. Holden ..	21st February
	Crediton ..	T. Jones ..	28th February
	Dartmouth ..	W. G. Lane ..	15th March
	Dawlish ..	F. S. C. Churchward ..	19th February
	Exmouth ..	J. Wilson ..	28th February
	Heavitree ..	F. E. Simpson ..	26th February
	Holsworthy ..	F. Vanstone ..	27th February
	Honiton ..	A. Tillotson ..	28th February
	Ilfracombe ..	H. J. Karslake ..	26th February
	Ivybridge ..	W. H. Full ..	9th February
	Kingsbridge ..	J. Hole ..	28th February
	Lynton ..	W. Yeo ..	7th March
	Newton Abbot ..	H. Judd ..	15th February
	Northam ..	A. Richards ..	8th February
	Okehampton ..	F. J. Worden ..	1st June
	Ottery St. Mary ..	R. M. Smith ..	22nd February
	Paignton ..	J. Crathorn ..	22nd January
	Salcombe ..	G. I. Holmes ..	10th February
	Seaton ..	E. W. Skinner ..	18th March
	Sidmouth ..	E. St. L. Whitford ..	3rd February
	South Molton ..	H. C. E. Rayner ..	9th March
	Stonehouse, East ..	N. G. T. Fedrick ..	22nd January
	Tavistock ..	F. Camble ..	31st January
	Teignmouth ..	J. Drake ..	12th February
	Tiverton ..	J. Siddalls ..	29th May
	Torrington, Great ..	G. Leate ..	17th April
Torquay ..	C. MacMahon ..	25th April	
Totnes ..	W. F. Follet ..	26th February	



## LIST OF SANITARY INSPECTORS—continued.

District.	Name.	Date of receipt of Report.
		1912.
RURAL. { Axminster ..	W. H. Biggs ..	25th January
{ Barnstaple ..	E. G. Kingwell ..	7th June
{ Bideford ..	J. Pennington ..	1st March
{ Broadwoodwidger ..	J. Frayne ..	2nd August
{ Crediton ..	L. E. Sharland, ..	5th February
	S. Pridham ..	13th February
{ Culmstock ..	W. R. Beadon ..	30th March
{ Holsworthy ..	R. Banbury ..	13th February
{ Honiton ..	A. J. Redfurn ..	8th February
{ Kingsbridge ..	J. H. Bailey ..	22nd June
{ Newton Abbot ..	R. A. Rogers ..	16th January
{ Okehampton ..	H. J. Ward ..	23rd February
{ Plympton St. Mary ..	W. E. Horton ..	18th April
{ South Molton ..	R. Kelland, ..	1st March
	W. S. Gardner ..	27th February
{ St. Thomas ..	E. H. Quick ..	25th January
{ Tavistock ..	W. J. Mason, ..	28th February
	J. H. Harris ..	28th February
{ Tiverton ..	R. Ellis ..	26th February
{ Torrington ..	R. Gomer ..	13th February
{ Totnes ..	W. F. Follet ..	4th June

**PHYSICAL FEATURES.**

The Administrative County, the second largest of the sixty-two administrative counties in England and Wales, is bordered on the north by the Bristol Channel, on the south by the English Channel, on the west by Cornwall, and the east by Somerset and Dorset. It lies between latitudes  $50^{\circ} 15'$  and  $51^{\circ} 15'$ , and contains 1,625,212 acres. Its geological structure is that of a vast synclinal trough, of which the marine Devonian formation of Exmoor in the north, and that from Dartmouth to Modbury in the south form the edges; while Silurian rocks, cropping out in the south from under the Devonian, compose the promontory from Start Point to Bolt Tail. In this great trough lie the carboniferous rocks (without the uppermost coal measure); and through this stratified rock is forced the great granitic mass of Dartmoor. It is from here that most of the many streams, yielding an abundance of potable waters, have their origin.



TABLE I.  
 (LOCAL GOVERNMENT BOARD TABLE I.)  
 (Census 1911.)

Districts.	Acreage.	Total Population	No. of Inhabited Houses.	Average No. of persons per house.
<b>URBAN.</b>				
Ashburton .. ..	6925	2494	..	..
Bampton .. ..	7760	1572	359	4.3
Barnstaple .. ..	2359	14484	3539	4.0
Bideford .. ..	3196	9084	2020	4.5
Brixham .. ..	5595	7954	1800	4.4
Buckfastleigh .. ..	1472	2425	580	4.1
Budleigh Salterton .. ..	840	2177	554	3.9
Crediton .. ..	2552	3640	996	3.6
Dartmouth .. ..	1847	7050	1548	4.5
Dawlish .. ..	1500	4099	1066	3.8
Exmouth .. ..	4000	11963	2975	4.0
Heavitree .. ..	3500	11000	2531	4.3
Holsworthy .. ..	703	1500	310	4.8
Honiton .. ..	3134	3230	713	4.5
Ilfracombe .. ..	5627	8935	2201	4.0
Ivybridge .. ..	600	1730	300	5.7
Kingsbridge .. ..	808	3049	..	..
Lynton .. ..	7203	1770	456	3.9
Newton Abbot .. ..	4132	13712	3215	4.3
Northam .. ..	3042	5575	1288	4.3
Okehampton .. ..	502	3175	652	4.8
Ottery St. Mary .. ..	10008	3700	926	4.0
Paignton .. ..	5312	11250	3000	4.0
Salcombe .. ..	1184	2032	518	3.9
Seaton .. ..	1091	1694	424	3.9
Sidmouth .. ..	1600	5569	1268	4.4
South Molton .. ..	6400	2740	712	4.0
Stonehouse, East .. ..	190	13722	1422	9.6
Tavistock .. ..	1621	4383	1083	4.0
Teignmouth .. ..	1589	9215	..	..
Tiverton .. ..	17680	10205	2400	4.2
Torrington, Great .. ..	3456	3041	715	4.2
Torquay .. ..	3906	38772	6614	5.9
Totnes .. ..	1408	4128	..	..
Total .. ..	122742	231069	46185	4.6
<b>RURAL.</b>				
Axminster .. ..	52135	12343	2958	4.1
Barnstaple .. ..	132059	18184	4317	4.1
Bideford .. ..	53775	6306	1472	4.2
Broadwoodwidge .. ..	24116	2390	530	4.5
Crediton .. ..	93508	10919	..	..
Culmstock .. ..	20972	3346	783	4.2
Holsworthy .. ..	84820	7347	1668	4.4
Honiton .. ..	73054	9597	2263	4.2
Kingsbridge .. ..	70082	11641	..	..
Newton Abbot .. ..	99142	19508	4591	4.2
Okehampton .. ..	114566	13601	3166	4.3
Plympton St. Mary .. ..	73252	21478	4704	4.5
South Molton .. ..	117432	10908	..	..
St. Thomas .. ..	109640	24835	5945	4.1
Tavistock .. ..	141000	16163	3504	4.6
Tiverton .. ..	85368	15340	3496	4.3
Torrington .. ..	79803	8970	2071	4.3
Totnes .. ..	77746	11751	..	..
Total .. ..	1502470	224627	41468	4.3
Administrative County	1625212	455696	87653	4.4

## POPULATION.

The Administrative County (census, 1911) consists of 455,696 inhabitants, of whom 231,069 are in the 32 urban districts, and 224,627 in the 18 rural districts. The whole population may, however, be considered "rural," for the urban districts (excluding those of Torquay, Barnstaple, Tiverton, Newton Abbot and Exmouth) are small and have the advantages pertaining to rural areas.

## CENSUS.

The decennial census of England and Wales was taken on April 2nd, 1911, and from the preliminary report some interesting figures are worthy of mention. The total number of persons returned as living in England and Wales at midnight, on Sunday, April 2nd, was 36,075,269. This total shows an increase of 3,547,426, or 10.9 per cent., upon the number returned at the previous enumeration of April 1901. The net gain of population by excess of births over deaths, which had been 15.09, 13.97, and 12.39 per cent. in the three preceding intercensal periods, rose in the period, 1901-1911, to 12.44. This result was due to the counterbalancing of a great reduction of the birth-rate by a still greater reduction of the death-rate.

The rate of increase per cent. for Devonshire was 5.7, against 10.5 for Dorset, 5.7 for Wilts, 5.3 for Somerset, and 1.8 for Cornwall (which comprise what is termed the five South-Western Counties).

With regard to the distribution of the population in urban and rural districts in the Administrative County, 51 per cent. of the people are in the urban districts, and 49 per cent. in the rural districts. That for England and Wales is, in the urban districts 75 per cent. and in the rural 22 per cent.

To show the steady rise of the urban population and the decrease in that of the rural, the following table is of interest :—

**PROPORTION PER CENT. OF POPULATION OF  
ENGLAND AND WALES.**

	1881	1891	1901	1911
Urban population in each census ..	67.9	72.0	77.0	78.1
Rural population in each censns ..	32.1	28.0	23.0	21.9

The population of the Administrative County has increased by 18,801 (16,422 in the urban, and 2,379 in the rural districts) during the period of 1901-1911.

On analysing the number of people in the different districts during the intercensal period, it is found that the populations have increased in 23 of the urban and in 11 of the rural districts, the chief in the urban districts being Torquay, 5,147 ; Heavitree, 3,421 ; Paignton, 2,856 ; Exmouth, 1,478 ; Sidmouth, 1,411 ; and Newton Abbot, 1,195 ; whilst the rural districts are, Plympton St. Mary, 1,644 ; Newton Abbot, 605 ; Barnstaple, 503 ; St. Thomas, 493 ; Totnes, 460 ; and Okehampton, 414. Decreases have taken place in 11 urban and in 7 rural districts, the chief in the urban districts being East Stonehouse, 1,357 ; South Molton, 336 ; Crediton, 334 ; Great Torrington, 200 ; and Tiverton, 177 ; while the rural districts are, Crediton, 660 ; Torrington, 290 ; Tiverton, 213 ; and Bideford, 145.

Dr. Elliott reports that at the time the census for Brixham was taken, a hundred fishing vessels were at sea. This would account for about 400 inhabitants of the district not being included in the returns, and will adversely affect the statistical rates for that area.

In England and Wales increases have taken place in all but five of the administrative counties. On comparing the Administrative County with the other sixty-one of England and Wales, it is found to be second in regard to the amount of acreage, and thirteenth in regard to population.

The main occupation of the population is that of agriculture, but along the coast a large proportion of the inhabitants is engaged in catering for visitors, and in the fishing industry. There are a few trades carried on, the chief being the manufacture of paper, boots and shoes, woollen material, cabinet-making, lace, gloves, and pottery. There are also corn mills and tanning yards. None of the above trades can be classified as dangerous.

On Table I will be found the acreage, population, number of inhabited houses, and number of persons per house for each urban and rural district.

### **SANITARY LEGISLATION.**

Unlike last, this year saw several Bills, which have a direct bearing on the National Health, placed on the Statute Book :—

1. The National Insurance Act, 1911, is one of momentous importance, and may lead to great results in improving the national health, both in regard to preventive and curative treatment, especially in relation to tuberculosis.

2. The Lunacy Act, to meet the difficulties of the Lunacy Commissioners, especially in the matter of preparing the way for the 92 recommendations of the Royal Commission on the Feeble-Minded. Unfortunately the Bill was cut to pieces, and the only result was the power to appoint two extra Commissioners in Lunacy, one of whom must be a medical man.

3. The Rag Flock Act, to ensure the cleanliness of the flock used for stuffing mattresses and upholstery. The filthy condition and risk to life of much of this had been complained of for many years past.

4. The Shop Act, to provide proper times for meals and a weekly half-holiday for all shop assistants.

5. The Coal Mines Act, to provide for the better qualifications of managers and improved ventilation, the prevention

of dust, improved sanitary conveniences, and the provision of washing and drying accommodation.

Unfortunately the Government Bill dealing with the important subject of Health Visitors failed to find its way on the Statute Book, and it is to be regretted that the long-promised Pure Milk Bill has not yet been brought to light.

## **LOCAL GOVERNMENT BOARD INQUIRIES.**

The following are the only two schemes put before the Local Government Board for inquiry, as far as they have been notified to this Office :—

1. By the Axminster Rural District Council—"That a representation be made to the Local Government Board under Section 286 of the Public Health Act, 1875, that, in the opinion of this Council, the formation of the Borough of Honiton, the urban districts of Ottery St. Mary, Seaton and Sidmouth with the rural districts of Axminster and Honiton, into a combined district for the purpose of the appointment of a medical officer of health would diminish expense and otherwise be for the advantage of such districts." An enquiry was held on April 12th by Dr. Wheaton. Much opposition has been shown to the proposal, and as a result, the Local Government Board have stated that they do not, at present, intend to proceed with the Provisional Order for bringing about this combination.

2. By the Plympton St. Mary Rural District, for sanction to borrow respectively £1,826 and £1,015, for the purposes of sewerage and sewage disposal in the parishes of Compton Gifford and Egg Buckland. This power was sanctioned.

## **VITAL STATISTICS.**

### **BIRTHS.**

During the year there were 8,325 births registered in the county (4,132 in the urban, and 4,193 in the rural areas), against 8,709, 9,007 and 9,140 for the three preceding years. The birth-rate was 18.8 per 1,000, against 19.2, 20.0, and 20.3 per 1,000 for the three previous years.





**TABLE III.**  
1911.  
**BIRTH-RATES.**

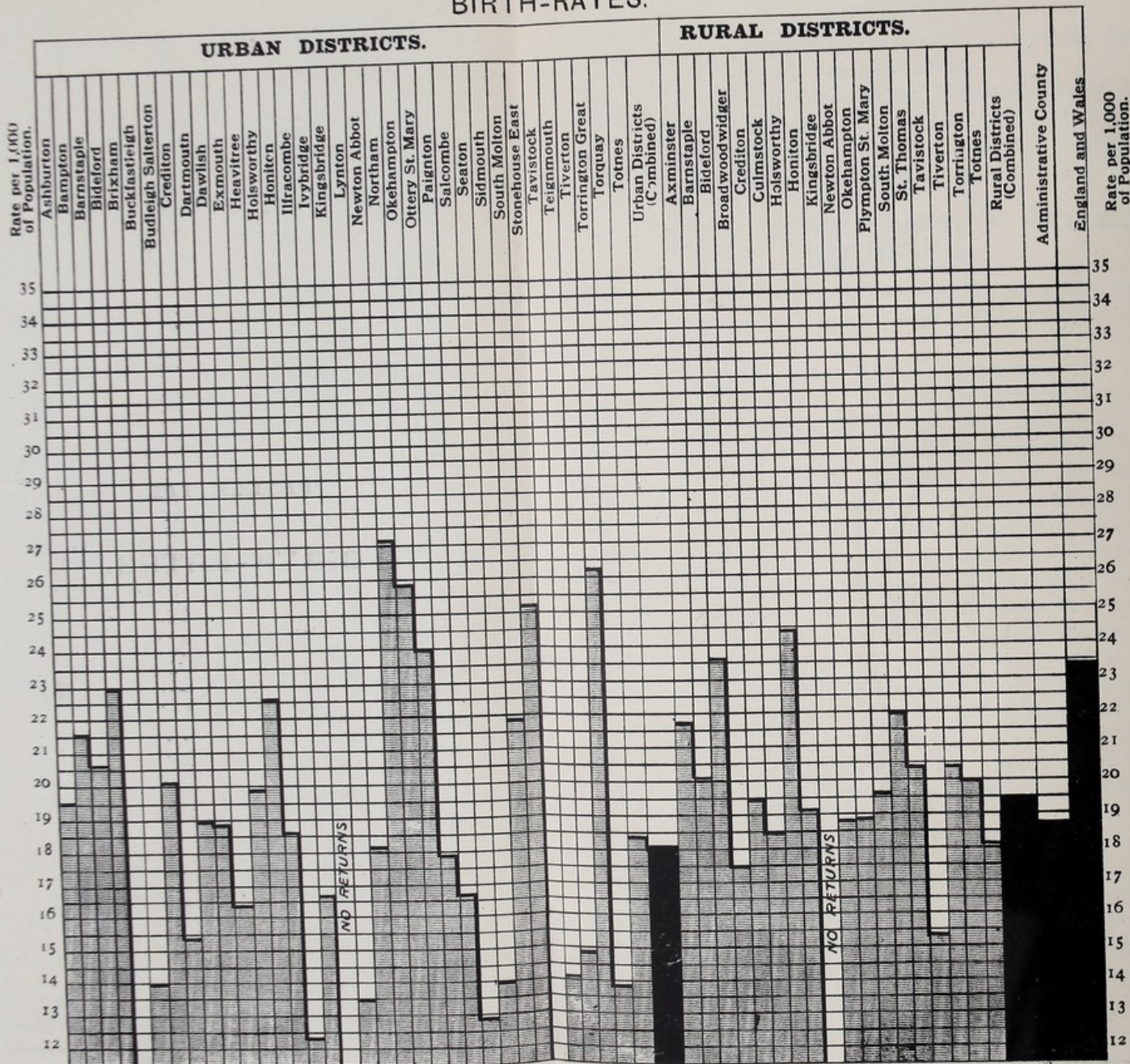


TABLE II.

**BIRTH-RATES.**

Districts.	Rates per 1,000 of population.									
	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
Urban .. ..	21.1	20.6	21.3	20.4	20.3	19.5	20.0	19.3	18.8	18.1
Rural .. ..	22.8	22.2	22.0	22.0	21.7	20.7	20.7	20.6	19.7	19.6
Administrative County ..	21.9	21.4	21.7	21.2	21.0	20.1	20.3	20.0	19.2	18.8
England and Wales ..	28.6	28.4	27.9	27.2	27.0	26.3	26.5	25.7	25.1	23.4

On looking at Table II it will be seen that the birth-rates in both the combined urban and rural districts are again, as last year, the lowest recorded for the past decennium, and in keeping with the steady decline going on throughout the country. There is a drop of nearly two points in that for rural England and Wales, which now stands at 23.4, against 25.1 per 1,000 for the previous year. It is, however, 4.6 per 1,000 higher than the Administrative County. In connection with this latter, the lower rate compared to that of all England is probably due to the large proportion of the population consisting of elderly people and women past the child-bearing age. These make up a large number of the residents in the many health resorts along the coast. Nearly all the reports of the medical officers refer to the seriousness, from a national aspect, of this diminishing birth-rate. The same causes as previously related are probably still in operation, viz., late marriage, selfishness, love of pleasure, no desire for children, and the inability of many women, through their upbringing, to become mothers.

TABLE III.

On referring to Table III the same irregularity in the columns for the different districts is again in evidence, as in

past years, from dealing with small figures. The lowest rate was in Ilfracombe, and the highest at Northam. The differences in the rates are more noticeable in the urban districts on account, generally, of their smaller populations. The urban rate, as in the previous year, is lower than the rural rate.

### ILLEGITIMATE BIRTHS.

Of the 8,325 births registered, 335 (209 in the urban, and 126 in the rural areas) were illegitimate, giving a rate of 5.0 per cent. for the urban, and 3.0 per cent. for the rural districts, with a general rate of 4.0 per cent. for the Administrative County. The death-rate for these illegitimate children was 247.0 per 1,000, against 90.0 per 1,000 for the legitimate children.

### DEATHS.

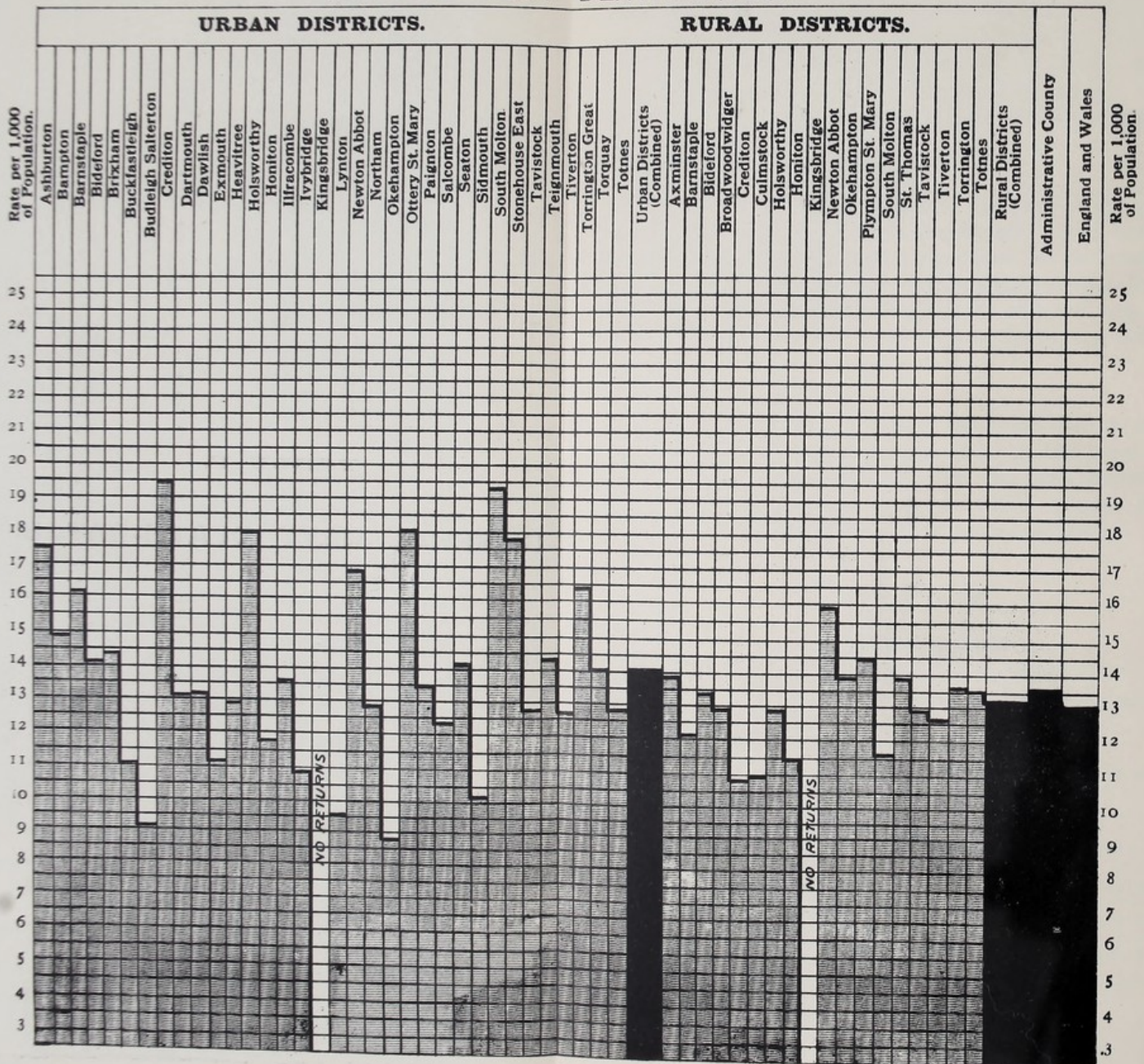
The total number of deaths registered during the year is 6,074 (3,234 in the urban, and 2,840 in the rural districts), against 5,810, 6,047, and 6,116 for the three previous years. The net death-rate was 13.7 per 1,000, against 12.8, 13.4, and 13.6 per 1,000 for the three preceding years.

TABLE IV.  
DEATH-RATES.

Districts.	Rates per 1,000 of population.									
	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
Urban .. ..	16.5	14.4	15.0	15.6	14.3	14.8	14.2	13.6	13.6	14.1
Rural .. ..	13.7	12.8	14.1	13.7	13.0	13.8	12.7	13.2	12.0	13.3
Administrative County ..	15.0	13.6	14.5	14.7	13.6	14.3	13.6	13.4	12.8	13.7
England and Wales ..	16.2	15.4	16.2	15.2	15.4	15.0	13.8	13.7	12.8	13.1



**TABLE V.**  
**1911.**  
**GENERAL NETT DEATH-RATES.**



On referring to Table IV it will be seen that the death-rate is 0.9 higher than that for last year, and the highest since 1907. The rates have risen in both the urban and rural areas, more markedly in the latter. The general rate in rural England and Wales has, also, risen for the year, being 13.1, against 12.8 per 1,000 for last year. It is 0.6 below that of the Administrative County.

#### TABLE V.

The columns in Table V, as for those of the births, again present the same irregularities, especially in the urban districts, where the same factor, smallness of population, comes into operation when calculating rates. Crediton Urban has the highest death rate, 19.5 per 1,000, and Okehampton the lowest 8.8 per 1,000.

Dr. Slade-King remarks for Ilfracombe:—"This year the deaths at and over 75 years were 29, which is equal to 24 per cent. of the total deaths. Six persons during this year were registered as having died at various ages exceeding 90 years. Five per cent. of the registered deaths were at the advanced age of 90 years and upwards; the average age of these six persons was 93 years, 2 months. These statistics tell their own tale, and bear eloquent testimony to Ilfracombe as being a healthsome district, as well as to the happy success which has attended the Local Authority in their sanitary administration."

On Table VI (see end of report), will be found details as to age and cause of death in all cases registered in the Administrative County.

#### **INFANT MORTALITY.**

By this is meant the number of deaths that occur among infants under twelve months of age, reckoned as so many per 1,000 of the births registered. It is generally held as an index of the efficiency of the sanitary administration of a district, but there are other factors at work which influence this rate, such as the occupation of the mothers, the prevalence of breast-feeding, and the incidence of the infectious diseases, particularly fatal to young children, such as measles and whooping-cough.

TABLE VII.

**DEATH OF CHILDREN UNDER 1 YEAR.**

Districts.	Rates per 1,000 Registered Births.									
	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
Urban .. .. .	133	102	116	108	109	103	101	83	83	103
Rural .. .. .	90	83	101	82	84	90	75	76	67	89
Administrative County ..	111	92	108	95	96	96	88	80	75	96
England and Wales ..	133	112	146	128	133	118	110	98	95	118

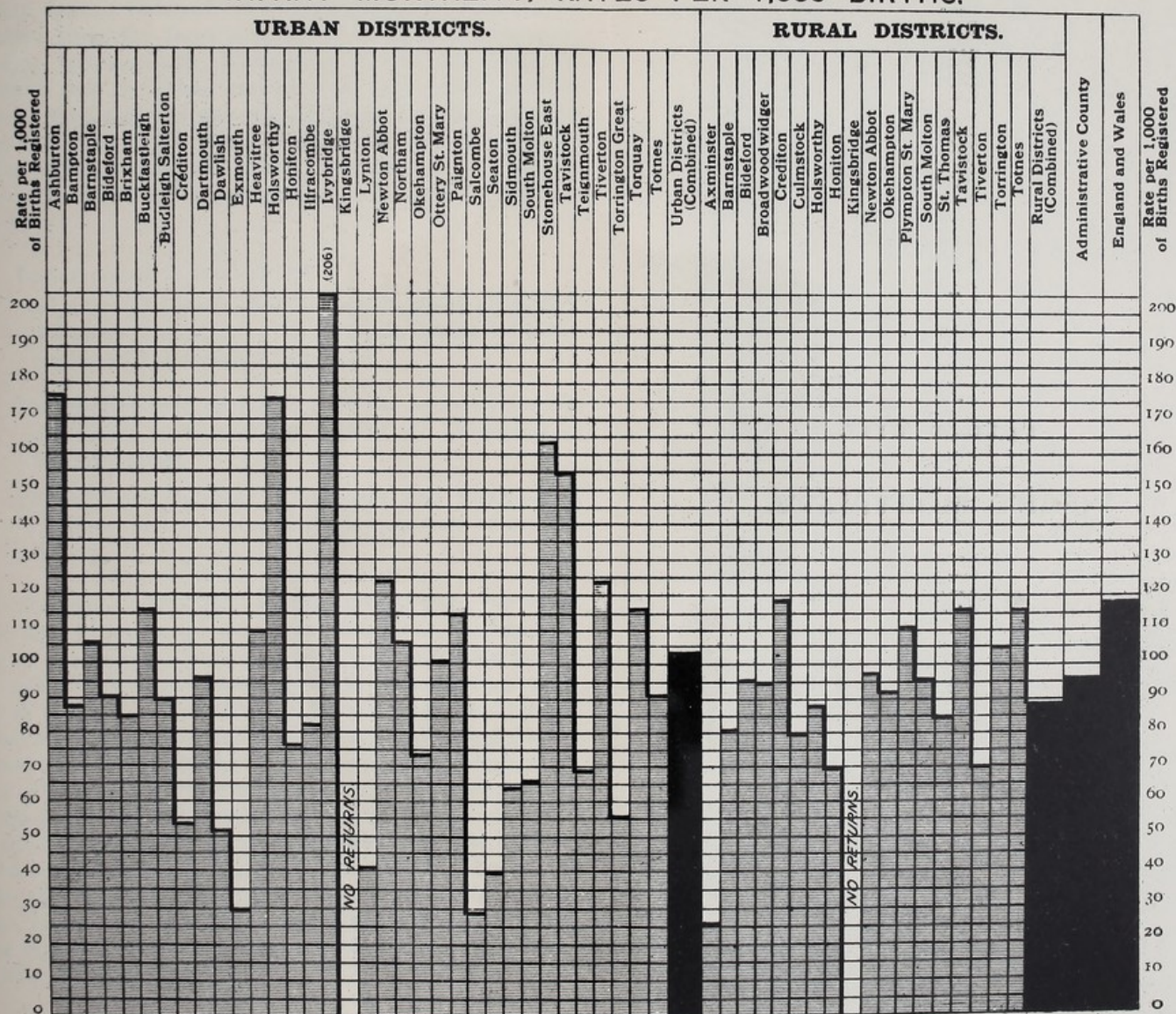
From the above table it will be seen that the infant mortality rate has, in both urban and rural districts, made a large jump upwards as compared with previous years, and is as high as any rate recorded since 1904. It has gone up 20 in the combined urban, and 22 per 1,000 in the combined rural areas, and nearly corresponds with the increase in rural England and Wales, which has increased by 23 per 1,000. The rate for the Administrative County has nevertheless kept lower, as in all previous records, than for the country generally. The cause of this large increase is due to two causes, viz., the prevalence of severe epidemics of measles, and the incidence of diarrhoea, brought about by the prolonged drought. Still, it is a matter of regret and reflection that 802 babies, under 12 months of age, should succumb, in the majority of cases, to preventable diseases.

The remarks of some of the medical officers in relation to this subject are worthy of comment. Dr. Jonas strongly advises the appointment of a Health Visitor for the Barnstaple Borough; Dr. Gooding, in accounting for the high

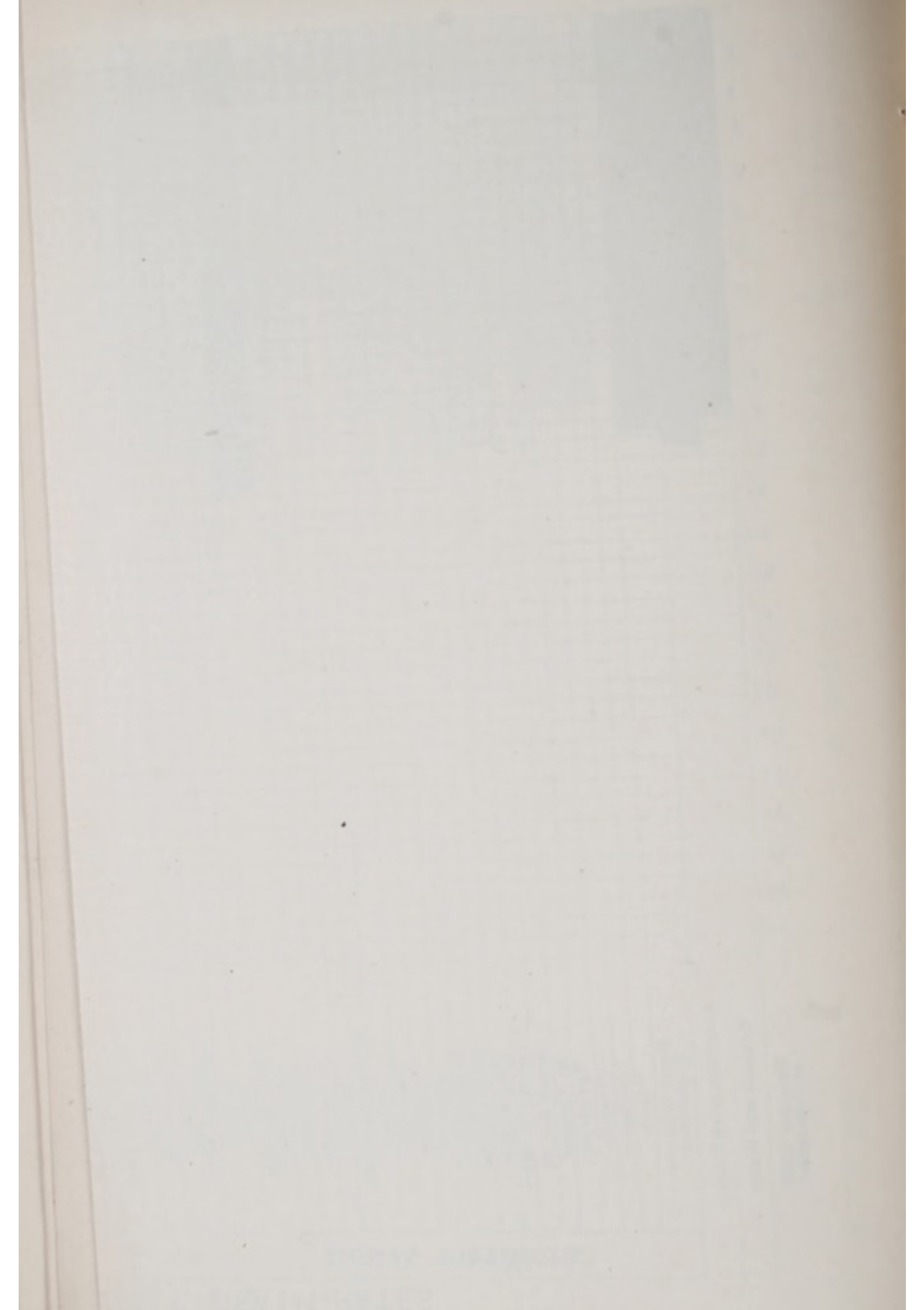
**TABLE VIII.**

**1911.**

**INFANT MORTALITY, RATES PER 1,000 BIRTHS.**







mortality rate in Bideford town, lays emphasis on the cause emanating from the large number of mothers employed in the collar factories. Dr. Slade-King is able to report for Ilfracombe that the infant mortality of that town has been the lowest tabulated: it was only 82.5, against 103.0 per 1,000 for the combined urban districts, and is significant compared with the large increase in so many other districts in England. He gives the following reasons for this most satisfactory condition:—

1. Improvement in food stores.
2. The active and methodical manner in which all surface nuisances are removed by the painstaking administration of the sanitary inspector.
3. The greater care exercised over the artificial feeding of infants, particularly as regards the cleanliness of feeding-bottles.
4. The increased number of mothers who suckle their children, and the practical disappearance of biscuit-feeding.

For Stonehouse, Dr. Leah reports a rate of 164.2 per 1,000, and of the 57 deaths, 20 were from diarrhoea. Perhaps the failure of the District Council to provide a destructor for the house refuse may have something to do with this large mortality, as the year was particularly favourable to the breeding of house flies in refuse accumulations, and it is now well known how much power the common house fly possesses in propagating disease of the digestive tract among infants. For Teignmouth, Dr. Piggott reports that since the adoption of the Notification of Births Act three years ago, the infant mortality rate has been reduced to 69.2 per 1,000, against an average of 110 per 1,000 for the previous ten years. For Honiton rural, Dr. Steele-Perkins reports that a printed pamphlet on the feeding and rearing of infants is given to every mother when she registers the birth of her child.

## DISEASES AMENABLE TO SANITARY REGULATIONS.

Under this heading are included the seven infectious diseases which come under the Notification Act (Infectious Diseases), 1889. These are small-pox, scarlet fever, diphtheria, membranous croup, typhoid fever, puerperal fever, and erysipelas. To this list are added measles, whooping-cough, and tuberculosis, all of which can be modified or prevented by sanitary regulations.

TABLE X.

### DEATHS FROM THE PRINCIPAL INFECTIOUS DISEASES, EXCLUDING TUBERCULOSIS.

Districts.	Rates per 1,000 of population.									
	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
Urban .. ..	0.68	0.53	0.76	0.81	0.51	0.52	0.51	0.37	0.34	0.82
Rural .. ..	0.37	0.46	0.61	0.51	0.57	0.57	0.45	0.31	0.34	0.51
Administrative County ..	0.53	0.50	0.69	0.66	0.56	0.54	0.48	0.34	0.34	0.67

In this table are set forth the death-rates of these diseases as they have occurred in the county during the past ten years. The rate for this year is more than double that of last year in the urban districts, and nearly double that in the rural areas. It is accounted for by the epidemic of typhoid fever at Barnstaple, and the large number of deaths from diphtheria and measles throughout the administrative county.

TABLE XI.

On Table XI are set forth the numbers of notifiable diseases which occurred in the different districts. There were 705 cases, with 53 deaths, notified in the urban; 559 cases, with

TABLE XI.

1911.

NOTIFIABLE DISEASES. (LOCAL GOVERNMENT BOARD TABLES II. AND III.)

DISTRICTS.	Population.	Small Pox.			Scarlet Fever.			Diphtheria and Membranous Croup.			Fever.			Puerperal Fever.		Erysipelas.		Total.	
		Cases.	Deaths.	Hospital Cases.	Cases.	Deaths.	Hospital Cases.	Cases.	Deaths.	Hospital Cases.	Cases.	Deaths.	Hospital Cases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
<b>URBAN.</b>																			
Ashburton .. .. .	2494	..	..	..	1	..	..	4	1	..	..	..	..	..	..	1	..	6	1
Bampton .. .. .	1572	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..
Barnstaple .. .. .	14484	..	..	..	6	..	..	9	5	..	49	9	..	..	..	4	..	68	14
Bideford .. .. .	9084	..	..	..	1	..	..	8	..	..	4	..	..	..	..	1	..	14	1
Brixham .. .. .	7954	..	..	..	11	..	..	50	2	..	..	..	..	..	..	1	..	62	2
Buckfastleigh .. .. .	2425	..	..	..	4	..	..	..	..	..	..	..	..	..	..	4	..	8	..
Budleigh Salterton .. .. .	2177	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Crediton .. .. .	3640	..	..	..	4	..	..	5	..	..	1	..	..	1	1	1	..	2	1
Dartmouth .. .. .	7050	..	..	..	2	..	..	..	..	..	2	..	..	..	..	2	..	13	..
Dawlish .. .. .	4099	..	..	..	2	..	..	..	..	..	1	..	..	..	..	2	..	6	..
Exmouth .. .. .	11963	..	..	..	11	..	6	1	..	..	12	2	4	1	..	4	1	29	3
Heavitree .. .. .	11000	..	..	..	10	..	7	10	2	6	4	..	2	..	..	..	..	24	2
Holsworthy .. .. .	1500	..	..	..	3	..	..	5	..	..	..	..	..	..	..	..	..	13	..
Honiton .. .. .	3230	..	..	..	15	..	..	1	..	..	1	..	..	1	..	2	..	20	..
Ilfracombe .. .. .	8935	..	..	..	4	..	1	..	..	..	..	..	..	..	..	5	..	9	..
Ivybridge .. .. .	1730	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	2	..
Kingsbridge .. .. .	3049	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lynnton .. .. .	1770	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Newton Abbot .. .. .	13712	..	..	..	94	1	68	11	3	5	7	1	7	..	..	5	1	117	6
Northam .. .. .	5575	..	..	..	3	..	..	..	..	..	7	..	..	..	..	1	..	11	..
Okehampton .. .. .	3175	..	..	..	5	..	..	4	1	..	..	..	..	..	..	2	..	11	1
Ottery St. Mary .. .. .	3700	..	..	..	4	..	..	1	..	..	..	..	..	..	..	2	..	7	..
Paignton .. .. .	11250	..	..	..	24	..	14	14	2	1	1	..	..	..	..	3	..	42	2
Salcombe .. .. .	2032	..	..	..	..	..	..	6	..	..	..	..	..	..	..	1	1	7	1
Seaton .. .. .	1694	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sidmouth .. .. .	5569	..	..	..	1	..	1	1	..	1	..	..	..	..	..	..	..	2	..
South Molton .. .. .	2740	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..
Stonehouse, East .. .. .	13722	..	..	..	11	..	..	13	2	..	7	..	..	1	1	8	..	40	3
Tavistock .. .. .	4383	..	..	..	..	..	..	4	..	..	2	..	..	1	..	..	..	7	..
Teignmouth .. .. .	9215	..	..	..	16	..	8	5	1	..	2	..	..	..	..	2	..	25	1
Tiverton .. .. .	10205	..	..	..	3	..	2	9	1	3	..	..	..	..	..	10	..	22	1
Torrington, Great .. .. .	3041	..	..	..	..	..	..	..	..	..	8	2	..	..	..	1	..	9	2
Torquay .. .. .	38772	..	..	..	34	..	22	62	10	53	2	..	2	..	..	3	1	101	11
Totnes .. .. .	4128	..	..	..	1	..	..	6	1	..	7	..	..	..	..	1	..	15	1
Totals .. .. .	231069	..	..	..	272	1	129	230	31	69	117	14	15	6	3	80	4	705	53
<b>RURAL.</b>																			
Axminster .. .. .	12343	..	..	..	3	..	..	2	..	..	3	..	..	..	..	6	..	14	..
Barnstaple .. .. .	18184	..	..	..	4	..	..	17	1	..	3	..	..	1	..	4	..	29	1
Bideford .. .. .	6306	..	..	..	..	..	..	9	4	..	4	1	..	..	..	9	..	22	5
Broadwoodwidge .. .. .	2390	..	..	..	10	..	..	1	..	..	..	..	..	..	..	..	..	11	..
Crediton .. .. .	10919	..	..	..	6	..	..	25	5	..	2	1	..	..	..	2	..	35	4
Culmstock .. .. .	3346	..	..	..	..	..	..	13	1	..	..	..	..	..	..	..	..	13	1
Holsworthy .. .. .	7347	..	..	..	1	..	..	14	1	..	..	..	..	..	..	3	..	18	1
Honiton .. .. .	9597	..	..	..	13	..	..	11	2	..	..	..	..	1	1	1	..	26	3
Kingsbridge .. .. .	11641	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Newton Abbot .. .. .	19508	..	..	..	31	..	13	17	4	7	3	1	2	..	1	8	1	59	7
Okehampton .. .. .	13601	..	..	..	7	..	..	5	2	..	4	2	..	..	1	6	1	22	6
Plympton St. Mary .. .. .	21478	..	..	..	33	..	..	50	5	..	7	..	..	2	..	7	..	99	5
South Molton .. .. .	10908	..	..	..	4	..	..	2	..	..	2	..	..	..	..	7	..	11	..
St. Thomas .. .. .	24835	..	..	..	58	1	50	33	4	26	8	..	2	1	1	5	..	105	6
Tavistock .. .. .	16163	..	..	..	9	..	..	4	1	..	3	2	..	..	..	4	..	20	3
Tiverton .. .. .	15340	..	..	..	9	..	7	5	..	2	12	3	6	..	..	9	2	35	5
Torrington .. .. .	8970	..	..	..	..	..	..	7	1	..	2	..	..	..	..	1	..	10	1
Totnes .. .. .	11751	..	..	..	16	..	..	12	2	..	..	2	..	1	..	1	..	30	4
Totals .. .. .	224627	..	..	..	204	1	70	227	31	35	53	12	10	6	4	69	4	559	52
<b>PORT.</b>																			
Barnstaple .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dartmouth & Totnes .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Exeter .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kingsbridge & Salcombe .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plymouth .. .. .	2	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	4	1
Teignmouth .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals .. .. .	..	2	1	..	..	..	..	..	..	..	1	..	..	..	..	1	..	4	1
Administrative County .. .. .	455696	2	1	..	476	2	199	457	62	104	171	26	25	12	7	150	8	1268	106



52 deaths, in the rural ; and 4 cases, with one death, in the port districts, giving a total of 1,268 cases, with 106 deaths, against 1,070 cases, with 73 deaths, for the previous year. This large increase is due to the extensive epidemics of scarlet fever in the Newton Abbot, Paignton, Torquay, Plympton St. Mary, and St. Thomas districts ; the outbreaks of diphtheria in Brixham, Torquay, Crediton (rural), Plympton St. Mary, and St. Thomas districts, and typhoid fever cases in the Barnstaple (urban), Exmouth, and Tiverton (rural) areas.

## **INFECTIOUS DISEASES.**

### **ANTHRAX.**

In November, 2 cases of this disease were reported by the medical officer of health for St. Thomas. They were contracted by farm hands in dealing with an infected bullock. Great credit is due to the medical officer for promptly diagnosing the disease and having the cases satisfactorily treated.

### **ACUTE POLIOMYELITIS.**

This disease began to appear, in an epidemic form, in May. The first cases probably occurred (it was not then a notifiable disease) in the rural district of Holsworthy. From that date it continued to break out in different parts of the county, until the end of October. The disease was chiefly confined to children, although several adults were attacked (nine in all, the eldest being thirty-six years of age). The outbreak was closely investigated, on behalf of the Local Government Board, by Dr. R. J. Reece, one of their inspectors, who also investigated the extension of the disease into Cornwall. The disease was chiefly confined to North Devon, with the greatest number of cases in the Holsworthy rural area. Altogether, about 134 cases with 24 deaths were reported, giving a case mortality rate of 18 per cent. Of the number of known cases, about 100 had some definite paralytic lesion, and as far as can be ascertained, about 75 of these will permanently retain this condition. In addition to these, there was an outbreak among the

children at Stoke Rivers School. Thirty out of the 40 children were attacked, besides a number of children in the village, not of school age. The outbreak was of a mild type, coming under the heading of "abortive" cases: 4 cases only being of the paralytic type. In order to locate and prevent the spread of the disease, a circular letter was sent to all the local authorities suggesting that acute poliomyelitis and cerebro-spinal fever should be immediately made notifiable under the Infectious Diseases (Notification) Act, 1889. All the authorities, with the exception of Ilfracombe (where it was made voluntarily notifiable) and Totnes Rural (which refused to take any action), took advantage of Section 7 of the Act, and made the two diseases notifiable for variable periods, chiefly with a view to cover the summer of 1912, as the incidence of the disease is greatest, as a rule, during the months of July, August and September. A circular letter was also sent to all the district medical officers, giving a brief synopsis of the chief symptoms of the disease as it was then attacking the population, with details of treatment and precautionary measures, as suggested by Dr. Reece. Accompanying the circular letter was a specimen card, containing, in simple language, the main characteristics of the disease and precautionary measures. It was suggested that a similar card of this description should be obtained by local authorities for distribution in places where the disease manifested itself. Forms, for full reports on each case, were distributed to all the district medical officers of health, in order to obtain statistics for this office and the Local Government Board. As a precautionary measure, before compulsory notification came into force, it was deemed wise to close the elementary schools in all villages where outbreaks occurred, for school influence appeared, in some instances, to have a bearing on the spread of the disease. Altogether, 38 schools were closed for an average period of a month.

In December, the Local Government Board, in consequence of the outbreak of several epidemics in different parts of England, issued a circular letter, prepared by their medical officers, giving the different symptoms and measures to be

adopted for prevention in outbreaks of both cerebro-spinal fever and acute poliomyelitis. This letter was sent to all sanitary authorities and their medical officers throughout the country.

A circular letter was issued from this office to all the local authorities in the Administrative County, suggesting that they should make the diseases, acute poliomyelitis and cerebro-spinal fever, permanently compulsorily notifiable. It is satisfactory to report, that all the authorities have, or are, taking the necessary steps to accomplish this. At present the diseases are compulsorily notifiable in every district.

### **SMALL-POX.**

There were no cases of small-pox notified in any of the urban or rural districts. Two cases, one with a fatal termination, were reported from the Plymouth Port district, particulars of which are contained in the section (page 77) dealing with that district.

The lament of the medical officers of health in regard to the neglect of vaccination among children and the increasing number of exemption certificates issued, is again in evidence in the annual reports of these officers. Dr. Dunlop states that in Torquay there is still a continued increase in the number of exemption certificates. Dr. Noy Scott states in his report :  
 “ The agitation against vaccination unfortunately still con-  
 “ tinues active, and I fear it will not cease until the nation  
 “ gets a severe and solemn lesson by the appearance of an  
 “ epidemic of small-pox. The pity of it is, that so many  
 “ otherwise intelligent people are being misled by the noisy  
 “ anti-vaccinators and will not trouble to read the unchallenge-  
 “ able arguments, or consider the unanswerable facts that  
 “ can be produced in favour of vaccination. The fact that  
 “ so large a proportion of voters have never been brought  
 “ face to face with the appalling results of small-pox is un-  
 “ doubtedly the reason that they are somewhat indifferent  
 “ to vaccination. They forget that the real reason that they  
 “ have, fortunately, never had such experience is that vaccina-



“tion has done its work so well in times past, that small-pox  
 “has now become a rare disease.” “I cannot help repeating  
 “that the experience of medical men, throughout the world,  
 “proves conclusively that vaccination is our only safeguard  
 “against small-pox. If vaccination and re-vaccination were  
 “made compulsory in this country, the provision of small-  
 “pox hospitals would be quite unnecessary, and a great saving  
 “in the expenditure of public money would be effected.”

### **SCARLET FEVER.**

The disease has been present in forty of the districts, against forty-three for last year, and forty-four for the previous year. There were 476 cases notified (272 in the urban, and 204 in the rural), with 2 deaths only (one in the urban, and one in the rural areas). Last year, 402 cases, with 8 deaths, and in the previous year, 711 cases with 11 deaths, were notified. Although the number of cases reported is larger by 74, yet the mortality is only one-fourth, well illustrating the mild type of the disease, at present, prevailing in the country generally.

*Urban Districts.*—An outbreak of a mild epidemic beginning in November, at Dartmouth, was the subject of a special report by Dr. Harris in February, 1912, but no deaths occurred. It was impossible to find the cause of the first case, but the subsequent cases were due to school infection. He laments the want of an isolation hospital, for preventing the spread of infectious diseases, for the welfare of the town and the Royal Naval College, and in the interest of visitors. Dr. Mapleton reports 94 cases of a mild type in Newton Abbot. There was one death. A factor in the spread of the disease was the attendance of children at school whilst still in an infectious state. Twenty-four cases are reported for Paignton, but no special report was received or remarks made on the epidemic.

There were 34 cases, of a mild type, with no deaths, reported from Torquay, against 58 cases for last year, and 73 for the year 1909.

*Rural Districts.*—Ten cases were reported at North Petherwin in the Broadwoodwidge district, all of a mild type; 5 cases occurred in one cottage where isolation was impossible. Dr. Mapleton reports 31 notifications, against 27 for 1910. The cases occurred chiefly at Ipplepen. Dr. Noy Scott reported 33 cases from Plympton St. Mary, the greatest number being at Weston Mill, Shaugh, and St. Budeaux. Dr. Black reported 58 cases in the St. Thomas district, 25 of them being in the Topsham and Clyst districts.

The type of scarlet fever throughout the country continues to be of a very mild nature. Medical attendance among the poor is now rarely obtained for this disease, with the result that the early cases are not notified, children attend school whilst suffering from it, and consequently infect their companions. The mortality rate is extremely low, for of the 476 cases reported (and there must be very many that never came to light), there were only two deaths in the county from it, whilst for measles there were 158 deaths.

## **DIPHTHERIA.**

During the year, this disease has prevailed in 39 of the districts, against 44 for the previous year, and 38 for 1909. It has been reported from all the rural districts, except that of Kingsbridge, from whence no returns have been received. There were 457 cases notified (230 in the urban and 227 in the rural) with 62 deaths (31 in the urban and 31 in the rural). Last year, 412 cases with 49 deaths, and in the previous year, 474, with 42 deaths, were registered. The mortality rate for cases notified for the three years was, in 1909, 8.8 per cent.; 1910, 10 per cent.; and 1911, 13.5 per cent. From the reports it appears that only 104 (the majority being in Torquay and St. Thomas) of the 457 cases received hospital treatment.

*Urban Districts.*—Dr. Gooding reports that diphtheria antitoxin was freely used, both for curative and prophylactic purposes in the Bideford district for all cases of the disease.

At Brixham there were 50 mild cases reported, with only 2 deaths. Here, school "carriers" played an important part in the dissemination of the disease; swabs were taken from many of the children in the different schools with positive results, not only from the throat, but from the nose, and in one instance from a skin infection. Dr. Moiser reports five cases in Crediton, four in one house, and one in the Union Workhouse. He could trace no connection from these with an epidemic that prevailed at Hookway in the rural district. Of the 10 cases at Heavitree, 6 were removed to hospital. Two cases occurred at Holsworthy due to school contact. Four cases were notified in Okehampton, with one fatal result; till then the disease had been absent from the borough for many years. Fourteen cases, with 2 deaths, were notified in Paignton, but no report was forthcoming on these. Six cases were reported in Salcombe. They were scattered about the town; antitoxin was freely used and no deaths occurred. An examination of the throats of the schoolchildren revealed several "carrier" cases. Thirteen cases, with 2 deaths, were notified in East Stonehouse. The disease was, at the time, prevalent in the adjoining towns. Sixty-two cases were reported in Torquay, and of these 53 were removed to the hospital. To give an illustration of the method of spreading the disease in this town, from one house in which a case occurred six children were going to school, and on an examination of their throats, five gave positive results. Prior to the exclusion of these children, four cases had occurred in the school, but none after.

*Rural Districts.*—For Barnstaple, Dr. Harper reports 17 cases, with one death only. The greatest number occurred at Sherwell, where school influence was in evidence in spreading the disease, for when all the throats of the children were examined, 7 were proved to be "carriers." Nine cases, with 4 deaths, were reported at Monkleigh, in the Bideford area, among school children. The school was closed, and swabbing, with satisfactory results, was obtained here also. For Crediton, Dr. Moiser reports that of the 25 cases reported, 24 occurred at Hookway. No common origin could be dis-

covered. Two cases only were sent to the Exeter Sanatorium, as no room could be found for the remainder. Only two deaths occurred, which was probably the result of the free provision of antitoxin. Suspicion as to the cause of this outbreak rested on the schools and public well, but in neither case could satisfactory evidence be obtained to satisfy this suspicion. For Culmstock, Dr. Date reports an outbreak of the disease among the schoolchildren at Hemyock; 13 cases were reported. Bacteriology was freely used, but it only detected one "carrier." The schools were closed, as the sanitary condition of the closets and of the well were not satisfactory. The former has been remedied but not the latter; suspicion also rested on the interchange of infected pens and pencils among the children. Dr. Steele-Perkins reported an outbreak at Cotleigh among the schoolchildren, due to drinking polluted water. Dr. Mapleton reported for Newton Abbot that the district was comparatively free from the disease, only 17 cases, against 26 for last year, being reported, and more than half of these occurred in two families. Dr. Noy Scott reported 50 cases in the Plympton district, most of which occurred at Tamerton Foliot, necessitating the closing of the elementary schools. Dr. Black reported 33 cases in the St. Thomas district; 12 of these occurred at Broadclyst, and 4 at Dunsford, where the schools were closed in both villages. Free antitoxin was used for the usual purposes. There were four deaths, giving a case percentage mortality rate of 12 per cent., against an average of 17 per cent. for the last five years. The medical officer of health for Torrington reported cases at Ashreigney, where antitoxin was freely used, with good results.

### **TYPHOID FEVER.**

There were 171 cases notified (117 in the urban, 53 in the rural districts and one in the Port) with 26 deaths, against 75 cases and 10 deaths in 1910, and 93 cases and 10 deaths in 1909. The disease has occurred in 29 districts against 32 for the preceding year. Of the 171 cases, only 25 received hospital treatment.

*Urban Districts.*—Barnstaple was visited by an epidemic during the year ; 49 cases, with 9 deaths were reported, and 37 of the cases were treated in the isolation hospital. This outbreak was the subject of a special report by the medical officer of health, the county medical officer, and an inspector of the Local Government Board. The latter prefaces his report by stating “for many years past there has been a good deal of enteric fever in the town of Barnstaple.” On investigating the cause, suspicion rested on the unsatisfactory condition of the backyards and drainage of the area invaded, and also on the outfall sewers, which allow crude sewage to be deposited on the shores near the town. Children play on these foreshores and shellfish and seaweed are gathered on them. No suspicion rested on the milk or water supply. Personal contact seemed to play a large part in the spread of the disease. The medical officer of health regrets that the medical men often wait until their diagnosis is confirmed by the Widal test before notifying cases, and he suggests that all suspicious cases should at once be notified. For Budleigh Salterton, Dr. Beesley states that no case of typhoid has occurred there since 1904. Two cases occurred at Dartmouth, and were due to defective drainage. Four cases were reported at Heavitree, 3 of which were in the vicinity of several open manholes where occasional flooding of the sewer takes place. Dr. Mapleton reported 7 cases at Newton Abbot ; 3 were due to eating shellfish, and 3 occurred in the Union Workhouse. Dr. Toye reported 7 cases at Northam, of which 6 were all members of one family. The disease was brought home by a sailor who was himself suffering from it, and owing to no isolation hospital being available, he gave it to the other members of the family. In order to check the spread, as far as possible, trained nurses were supplied by private subscription. Dr. Leah reports 7 cases at Stonehouse, with one death ; 4 of the cases occurred in one family. Dr. Piggott states that since the new water supply was provided in 1908, the incidence of typhoid fever has fallen to a level never previously attained in the town. Eight cases were reported in Great Torrington.

The first two were imported from Barnstaple, where the disease had become epidemic.

*Rural Districts.*—3 cases were reported in the Barnstaple area, 2 of which were imported. Dr. Mapleton reports that 9 cases only occurred in the Newton Abbot area, one of which proved fatal. One case was due to polluted water, and another to polluted shellfish. Dr. Young, for Okehampton, reported 2 cases at Crockernwell, the first case occurring in a man who had been working in the typhoid-polluted soil of that village; he then passed the disease on to his wife. For Tiverton, Dr. Pollock reports 12 cases, 5 in the northern and 7 in the southern area. Five of them proved fatal and six were removed to the isolation hospital. No special report was forthcoming, nor was any cause stated for the occurrence of these cases.

## **DIARRHŒA.**

During the year, 224 deaths (151 in the urban, and 73 in the rural districts) were registered from this disease, against 39, 58, 76, and 79 for the four preceding years. The greatest number occurred at Bideford, East Stonehouse, and Torquay in the urban districts, and Plympton St. Mary, Totnes, and Tavistock in the rural areas.

It will be observed that there were nearly five times as many deaths during this year as that of the previous year. This is to be explained by the hot, dry summer, when all the conditions favourable to the decomposition of food and the prevalence of flies and dust were present; especially do these conditions affect the food supply of infants who happen to be bottle-fed. Of such a grave nature was this atmospheric condition that the Local Government Board issued, in August, a circular letter to all sanitary authorities, on the matter. The circular stated that the Local Government Board had under their consideration the excessive child mortality, especially from diarrhœa and enteritis, which is accompanying the very hot and dry summer of the present year. They impress upon the different local authorities firstly the importance of exact

advice on the feeding and management of children, the distribution of leaflets, and the visits, especially by health visitors, to the homes of babies born within the last twelve months. Secondly, the necessity of efficient scavenging, the daily removal of house and stable refuse, of domestic cleanliness, and of keeping all food properly protected. Thirdly, the necessity of, at once, ascertaining where diarrhœa is especially prevalent in the district, and attention, by the officers, to the cleaning of streets and courts, and urging upon mothers the importance of immediate treatment of infantile diarrhœa. The circular letter asks that medical officers of health will state in their annual reports the steps taken to prevent diarrhœa and infant mortality generally. Dr. Gooding reports for Bideford that it is some years since diarrhœa claimed so many victims, eleven of the fifteen deaths that occurred in children under two years of age were due to diarrhœa. He also states that house flies were very prevalent during this time. Dr. Edwards reports for Lynton, that, acting under the circular letter of the Local Government Board, all the children under twelve months of age were visited, and their parents instructed. Dr. Dunlop reports 19 deaths in Torquay from this disease, and that the advice, in the circular letter, was attended to, and many accumulations of manure and decaying organic matter were removed.

### **MEASLES.**

During the year there have been 158 deaths registered in the county (119 in the urban, and 39 in the rural districts), against 20, 28, 50, and 98 for the four preceding years.

*Urban Districts.*—For Barnstaple, Dr. Jonas reports a severe and extensive epidemic in the autumn, with 8 fatal results, necessitating the closing of seven school departments. For Brixham, Dr. Elliott reports an epidemic marked by its severity rather than the number of victims. There were 6 deaths, and as the epidemic lasted from May to August, it proved that the disease may be serious in hot weather, which is contrary to the general idea that measles are only dangerous

during the cold winter months. Dr. Moiser reports a large epidemic at Crediton in the early part of the year. Dr. Harris reports that measles were very prevalent in May, June and July at Dartmouth. There were four fatal cases, two of which occurred in the Royal Naval College. Dr. Mapleton reports the periodical appearance of measles after three years. The type of the disease was severe ; there were 15 deaths, thirteen of which were below five years of age. The infant schools were closed. Dr. Toye reports a severe epidemic at Appledore in the autumn ; over 200 cases were known, of which 11 proved fatal. The schools were closed. The previous epidemic occurred in 1906, when 14 deaths occurred. Dr. Ponton reported a severe epidemic in the early part of the year at Ottery St. Mary, with 7 deaths. The disease was very prevalent also in Stonehouse at the same time, causing 18 deaths. Dr. Dunlop reports that a severe epidemic visited Torquay, causing 33 deaths, of which 30 were in children under five years of age. The last epidemic was in 1909, but it was not so severe. A considerable epidemic was also reported at Totnes, causing two deaths, and necessitating the closing of the schools.

*Rural Districts.*—For Bideford Dr. Betts states that measles were prevalent in that area during July and August, but no deaths occurred. Dr. Noy Scott reports the disease has been very prevalent at Plymstock, Bickleigh, Brixton and Harford in the Plympton St. Mary area, necessitating the closing of the schools in the last three named villages. Dr. Black reports that measles were extremely prevalent in the early part of the year throughout the St. Thomas district ; 6 deaths were registered from it.

## **WHOOPIING COUGH.**

This disease caused 36 deaths during the year (17 in the urban, and 19 in the rural districts), against 57, 53, 70 and 61 for the four preceding years.

Dr. Elliott reports that the disease was very prevalent in Brixham during the early part of the year, causing 4 deaths among children: otherwise, little is mentioned in any of the



reports concerning the disease, although many schools were closed on account of its prevalence, details of which are given on page 71 under the section of Elementary Schools.

### TUBERCULOSIS.

Under this heading are included all the diseases caused by the tubercle bacillus, chief amongst which is phthisis. From the latter disease there were 434 deaths (241 in the urban, and 193 in the rural districts), against 416, 412, and 479 for the three preceding years. There were also 128 deaths (against 135, 133, and 142 for the three previous years) due to the bacillus in other organs of the body, giving a total of 562 (303 in the urban, and 259 in the rural districts), with a rate of 1.22 per 1,000, against 1.22, 1.20 and 1.38 per 1,000 for the three preceding years.

TABLE XII.

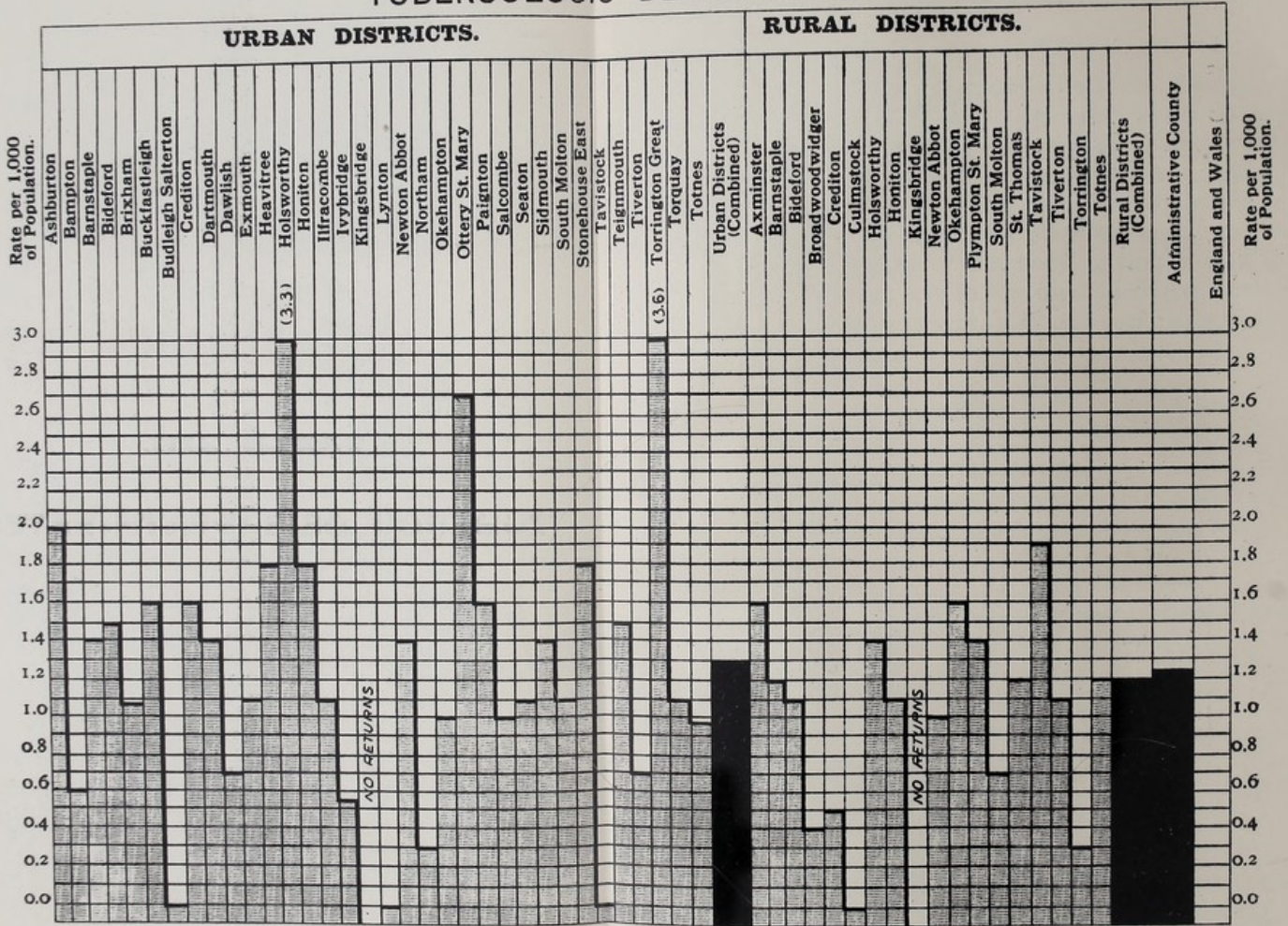
#### DEATH-RATES.

Districts.	Rates per 1,000 of population.									
	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
Urban .. ..	1.53	1.35	1.37	1.37	1.37	0.98	1.52	1.26	1.27	1.32
Rural .. ..	0.96	1.05	1.07	0.97	0.85	0.98	1.24	1.14	1.16	1.21
Administrative County ..	1.24	1.20	1.22	1.17	1.11	0.98	1.38	1.20	1.22	1.27
England and Wales ..	1.74	1.74	1.77	1.63	1.64	1.60	1.58	..	..	..

On referring to Table XII it will be seen that the death-rate from tuberculosis for the Administrative County is the highest on record (with the exception of that for 1908) for the last ten years. An increase over last year has taken place in both the urban and rural districts alike.



**TABLE XIII.**  
1911.  
**TUBERCULOSIS DEATH-RATES.**



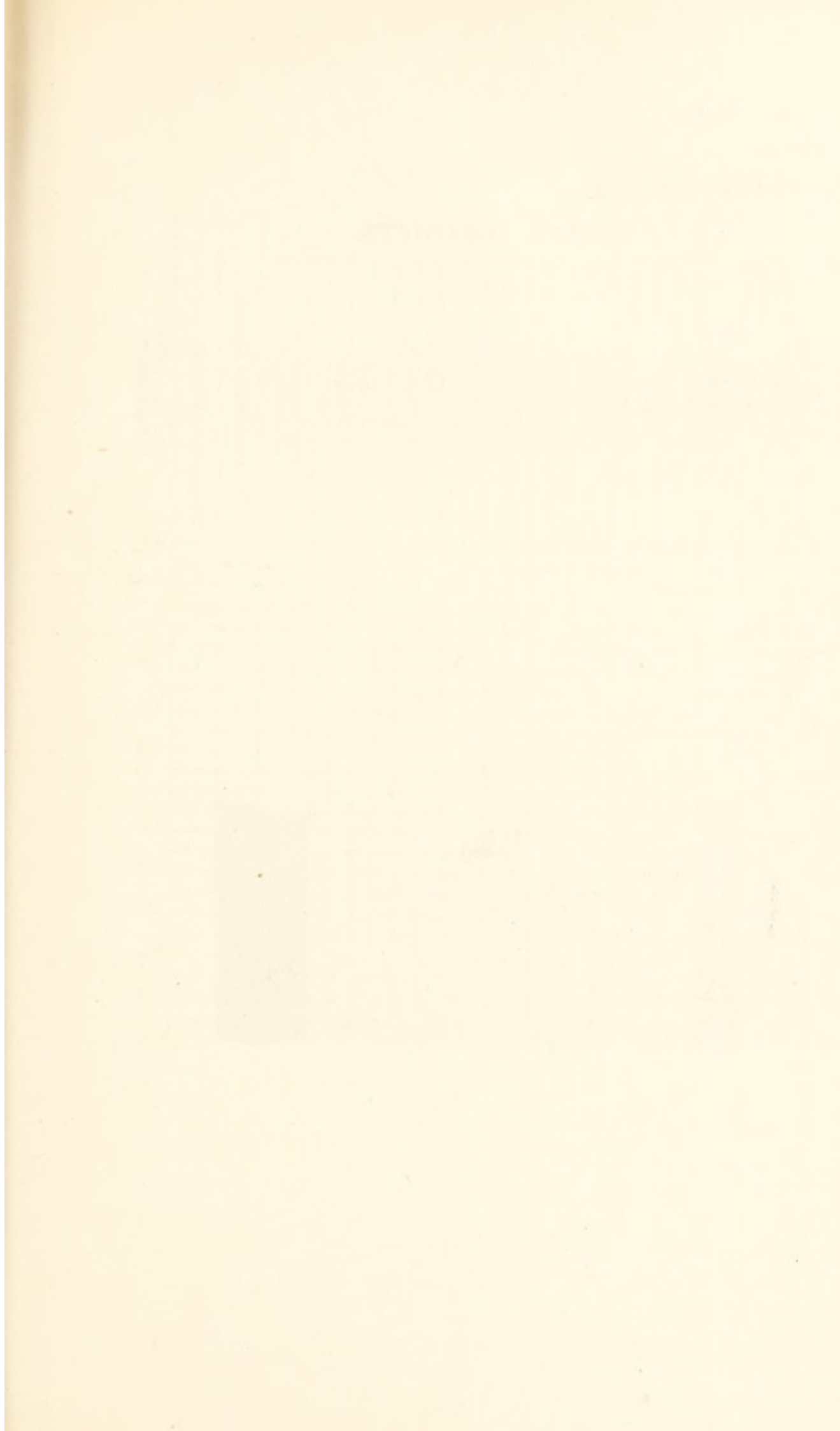
The columns in Table XIII show marked varying rates in the different districts; those for Budleigh Salterton, Lynton, Tavistock (urban), and Culmstock are on the same line and insufficient to give a decimal rate of any value. The highest rates are recorded in Great Torrington, Holsworthy and Ottery St. Mary in the urban areas, and Tavistock, Okehampton and Axminster in the rural areas. It is significant that Great Torrington still continues to show, every year, such a large rate, and should indicate the necessity of still further measures being taken to prevent the occurrence of so many cases of this disease in what should otherwise be, from natural surroundings, an ideal town for freedom. For the urban districts, Dr. Gooding states that all notified cases are visited and printed instructions issued. At Crediton an Anti-consumption Association has been formed, and is doing good work. At present, 8 shelters are provided in a suitable field, the patients are supplied with wholesome food, are taken care of by the district nurse, and voluntary health visitors follow up the cases after they leave the shelters. Patients are taken from the rural district and union workhouse as well. For Holsworthy, Dr. Gray states, that the houses in which fatal cases occur are disinfected, but no flasks or cups are provided by the local authority.

For Sidmouth, Dr. Peile strongly urges the adoption of a spitting by-law, and in so doing, relates how other authorities have taken this action with satisfactory results. Dr. Piggott advises the Teignmouth Council to adopt a scheme for treating tuberculosis after the fashion of the Tiverton district. For Tiverton the medical officer of health reports:—"The Joint  
 "Hospital Board, with the approval of the Local Government  
 "Board, are making arrangements for the treatment of con-  
 "sumptive patients, in the earlier stages of the disease, in  
 "shelters in the hospital grounds, during the coming year.  
 "The local association for the prevention and cure of con-  
 "sumption is co-operating in the work, and has undertaken  
 "to provide and furnish four shelters, two for each sex, as a  
 "commencement." The Medical Officer of Health for Great

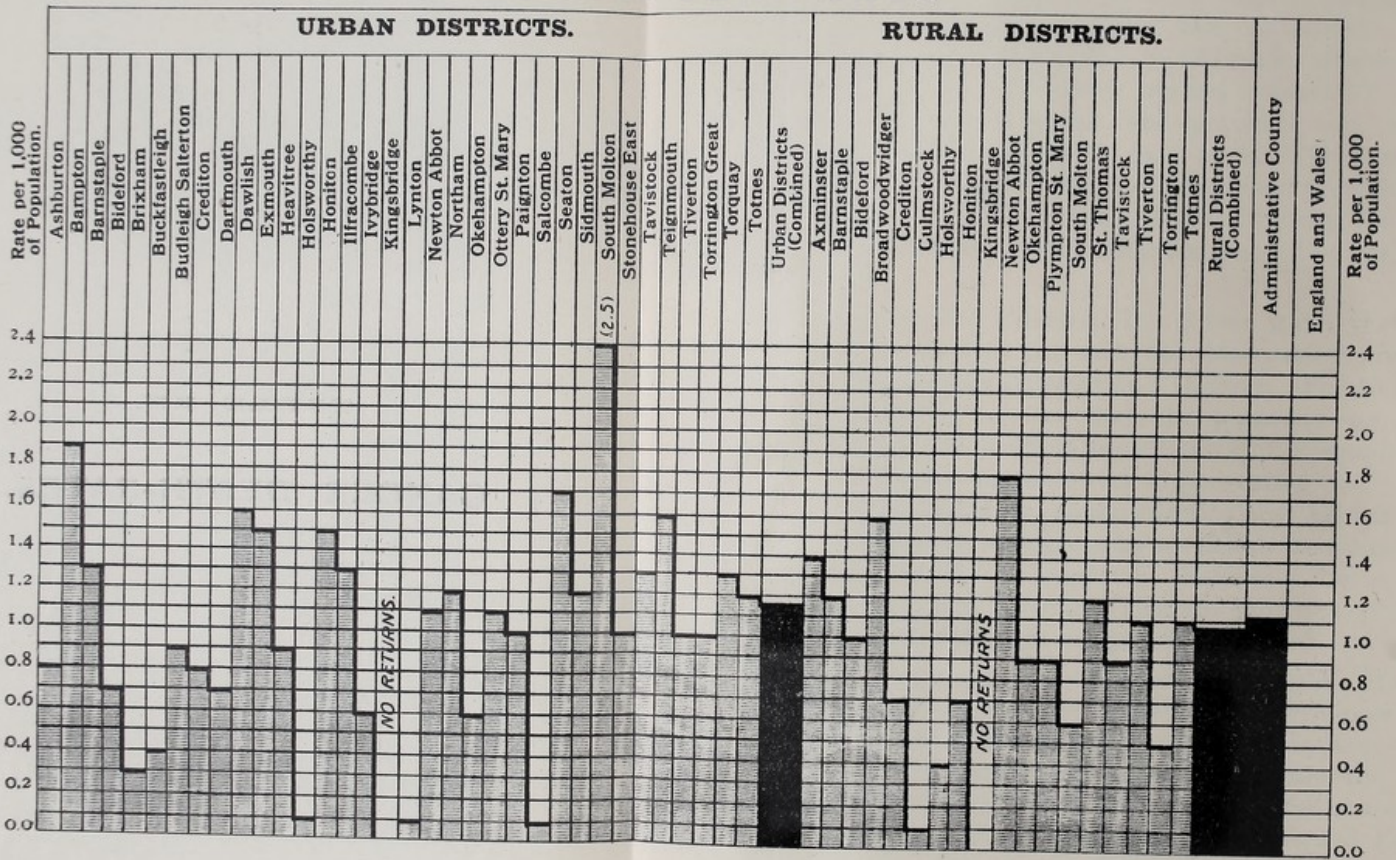
Torrington alludes to the large number of deaths in that small town, viz., 11, with a death-rate of 3.61 per 1,000. He states that seven cases were treated at the local hospital with tuberculin, and that encouraging results were obtained. For Torquay, Dr. Dunlop reports that a tuberculin dispensary, recently established in that town, worked voluntarily by a medical man and district nurse, and provided with funds from a private source, is doing good work. The Torquay Town Council undertakes to disinfect all rooms occupied by tuberculosis patients, to distribute leaflets bearing on the disease, and has in operation a by-law for preventing spitting in public places.

*Rural Districts.*—For Crediton, Dr. Moiser states that the guardians pay 10s. a week for each poor-law patient treated in the Anti-Consumption Association's shelters. For Newton Abbot, Dr. Mapleton reports that the authority provides spitting flasks and disinfectants for all cases of consumption, and these are likewise instructed as to prevention and treatment. For Okehampton, a public meeting was held in the autumn, when addresses were given by specialists from London, with a view to establish a tuberculin dispensary, but so far no results have followed. For St. Thomas, spittoons, printed instructions and disinfectants are provided.

By a gradual process, beginning with the Public Health (Tuberculosis) Regulations, 1908, which deals with poor-law cases, followed by the Public Health (Tuberculosis in Hospitals) Regulations, 1911, dealing with cases in hospitals and like institutions, which are partially or wholly supported otherwise than by private persons or otherwise from rates and taxes, and finally by the issue of the Public Health (Tuberculosis) Regulations, 1911, the Local Government Board have, at last, made pulmonary tuberculosis compulsorily notifiable for all classes by their powers under section 130 of the Public Health Act, 1875. It will be noticed that the powers have not been obtained by an extension of the Notification of Infectious Diseases Act of 1889. This was probably done with a view to prevent publicity and interference with the bread-winning



**TABLE XV.**  
**1911.**  
**CANCER DEATH-RATES.**



capacity of many of the sufferers. With the advent of the sanatorium benefits under the National Insurance Act, and the appeal of the Local Government Board to County Councils to deal with the white plague in co-operation with the Insurance Committees, schemes can now be arranged for the prevention and treatment of the *whole* community on the latest and most approved methods.

### CANCER.

During the year, 500 deaths (266 in the urban, and 234 in the rural districts) were registered from this disease, against 453 deaths for the previous year, and 464 for 1909, giving a rate of 1.13 per 1,000, against 1.00 and 1.03 for the two preceding years.

TABLE XIV.

#### DEATH-RATES.

Districts.	Rates per 1,000 of population.									
	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
Urban .. ..	1.02	1.10	1.02	0.99	1.02	0.95	1.06	1.08	1.07	1.16
Rural .. ..	0.89	0.90	0.95	0.94	0.83	0.98	0.99	0.97	0.93	1.09
Administrative County ..	0.96	1.00	0.99	0.98	0.91	0.97	1.03	1.03	1.00	1.13
England and Wales ..	0.84	0.87	0.87	0.88	0.91	0.90	0.92	..	..	..

On referring to the above table it will be seen that the death-rate in the county is higher than that for any year recorded. There is very little difference in the rates for the urban or rural combined districts, but both show a steady increase as years go by. Whether this is really due to the disease being more prevalent, or to a greater accuracy in diagnosis,



it is difficult to say. No particular comments are made on this disease by any of the medical officers. As reported for last year, all that can be said in relation to it is, that active research is still being pursued in all countries of the globe, but up to the present the origin remains a secret, and as yet nothing but early surgical interference can hold out any hope of a cure or a non-recurrence.

### **HOUSE ACCOMMODATION.**

The remarks made in last year's report still apply to this most pressing question, and are more than ever emphasised when taken into consideration with the active crusade that has now begun against the prevalence of tuberculosis in the county. It is becoming more and more apparent that until better housing accommodation is provided for the working classes, most of the efforts made to eradicate this and other diseases amongst the poor will avail little. During inspections now being made in the rural districts, particularly in North Devon, one is faced with the problem: How can the people be healthy and resist disease, living as they do in such hovels; and that apart from any question of morality and cleanliness, through the want of bedrooms and a sufficient water supply? In a measure, the Housing (Inspection of District) Regulations, 1910, are having a salutary effect in many districts, as judged by the reports of the district medical officers of health. Many of the landlords, on being approached in the matter of repairs, have, where possible, remedied the defects of the houses, but in only too many of the cases no remedy, except that of actual pulling down, is possible, and this cannot be carried out on account of the scarcity of habitable cottages to receive the displaced occupants of the condemned ones. Local authorities have also to hesitate in issuing closing orders on account of the overcrowding that must necessarily come about in the houses fit for habitation. Builders are not to be found who will build cottages with little prospect of any return for capital, as the occupier would not be in a position to pay the rent necessary to cover expenditure.

HOUSING (INSPECTION OF DISTRICT) REGULATIONS, 1910.

Sanitary District.	Date of Resolution.	Officer Appointed.	No. of houses inspected.	No. unfit for habitation.	No. of Representations for Closing Order.	No. of Closing Orders made.	No. of Houses remedied without Closing Order.	No. remedied after Closing Order.	General character of defects found.
<b>URBAN.</b>									
Ashburton	Nil	Nil	..	..	..	..	..	..	..
Bampton	7th Sept. 1910	M.O.H. and S.I.	..	..	..	..	..	..	..
Barnstaple	Nil	Nil	..	..	..	6	..	..	..
Bideford	23rd Feb., 1911	M.O.H. and S.I.	341	1	..	..	..	..	Defective courts; over-crowding; uncleanliness general.
Brixham	Nil	Nil	..	..	..	..	..	..	..
Buckfastleigh	..	..	361	..	..	..	..	..	..
Budleigh Salterton	..	..	..	..	..	..	..	..	..
Crediton	Oct. 1911	S.I.	..	..	..	..	..	..	..
Dartmouth	Nil	..	..	..	..	..	..	..	..
Dawlish	Mar. 1911	S.I.	77	..	..	..	..	..	..
Exmouth	Nov. 1910	S.I.	..	..	..	..	..	..	..
Heavitree	Nil	Nil	51	..	..	5	..	..	Backyards; dampness; sanitary accommodation. Insanitary backyards and closets.
Holsworthy	14th Mar 1911	M.O.H. and S.I.	180	77	..	..	..	..	..
Honiton	5th Oct. 1910	S.I.	..	..	..	..	..	..	..
Ilfracombe	12th Dec 1910	S.I.	98	..	..	..	68	..	Damp walls; unpaved yards.
Ivybridge	Nil	Nil	..	..	..	..	..	..	..
Kingsbridge	Nil	Nil	..	..	..	..	..	..	..
Lyton	Nil	Nil	..	..	..	..	..	..	..
Newton Abbot	May 1911	S.I.	422	..	..	..	..	..	..
Northam	8th Dec. 1910	M.O.H. and S.I.	..	..	..	..	..	..	..
Okehampton	17th Oct. 1910	M.O.H. and S.I.	255	103	..	..	..	..	..
Ottery St. Mary	May 1911	M.O.H.	..	..	..	..	..	..	..
Paignton	20th Dec. 1911	S.I.	115	..	..	..	..	..	..
Salcombe	14th Dec. 1910	M.O.H.	..	..	..	..	..	..	..
Seaton	4th Nov. 1910	M.O.H. and S.I.	..	..	..	..	..	..	..
Sidmouth	Nil	Nil	..	..	..	..	..	..	..
South Molton	28th Nov. 1910	M.O.H. and S.I.	..	..	..	..	..	..	..
Stonehouse, East	Sep. 1911	M.O.H.	149	16	16	16	16	133	..
Tavistock	Nil	Nil	..	..	..	..	..	..	..
Teignmouth	4th Oct. 1910	M.O.H. and S.I.	420	..	..	..	..	..	..
Tiverton	13th Mar. 1911	S.I.	..	..	..	..	..	..	..
Torrington, Great	11th Oct. 1910	M.O.H. and S.I.	260	..	..	..	..	..	..
Torquay	27th June 1911	M.O.H. and S.I.	88	5	5	1	..	4	Defective ventilation; damp walls and yard paving.
Totnes	25th Oct. 1910	M.O.H. and S.I.	..	..	..	..	..	..	..
<b>RURAL.</b>									
Axminster	8th Dec. 1910	S.I.	107	..	4	4	..	..	..
Barnstaple	19th Sep. 1910	M.O.H. and S.I.	..	..	..	..	..	..	..
Bideford	Nil	Nil	..	..	..	..	..	..	..
Broadwoodwidge	11th Nov. 1911	M.O.H. and S.I.	..	..	..	..	..	..	..
Crediton	Nil	Nil	..	..	..	..	..	..	..
Culmstock	..	M.O.H. and S.I.	142	..	..	..	..	..	..
Holsworthy	22nd Feb. 1911	S.I.	160	..	..	..	..	..	..
Honiton	..	..	..	..	..	..	..	..	..
Kingsbridge	Nil	Nil	..	..	..	..	..	..	..
Newton Abbot	Jan. 1911	M.O.H. and S.I.	..	..	..	..	..	..	..
Okehampton	Nil	Nil	492	2	3	..	..	33	..
Plympton St. Mary	1st Dec. 1911	M.O.H. and S.I.	..	..	..	..	..	..	..
South Molton	16th Nov. 1911	M.O.H.	..	..	..	..	..	..	..
St. Thomas	13th July 1911	S.I.	..	..	..	..	..	..	..
St. Thomas	28th Oct. 1910	S.I.	429	..	..	..	..	..	..
Tavistock	Nil	Nil	..	..	..	..	..	..	..
Tiverton	1st Nov. 1910	S.I.	506	4	4	4	..	..	..
Torrington	15th July 1911	S.I.	284	2	2	2	80	Nil	Roofs, plastering and floors
Totnes	18th Nov. 1910	M.O.H. and S.I.	..	..	..	..	..	..	..



The following are some of the remarks in reference to the above as contained in the reports of the medical officers of health as it affects the different districts:—For Bideford, Dr. Gooding states that a medium-sized cottage for artisans is in great demand, and that overcrowding is relieved, in some cases, by placing out members of large families for sleeping purposes. For Brixham, Dr. Elliott states that families are leaving the old and crowding into the new houses, which are only constructed for the accommodation of *one* family, with the resulting disadvantages. For Buckfastleigh, Dr. Williams reports: “The  
 “inadequacy of the housing accommodation presents a striking  
 “contrast to the efficiency of the water supply and drainage.  
 “The cottages are built far too close together, and very few  
 “have any garden or open space about them; there are no  
 “less than 104 houses occupied by 360 persons in courts off  
 “the main streets, behind the houses abutting on the street  
 “and approached by passages between the aforesaid houses.  
 “Most of these are ill-ventilated, the open space about them  
 “being quite insufficient. There is also a lack of cottages  
 “with sufficient accommodation for large families. Of the  
 “361 cottages inspected, 59 have only one bedroom, 245,  
 “two bedrooms, 48 three bedrooms, 8 four bedrooms, and  
 “one five bedrooms.”

Dr. Beesley reports that a private person at Budleigh Salterton is erecting 40 new cottages on two acres of land. These cottages are to be let at a rental of £8 per annum. For Dartmouth, Dr. Harris states that a reconstruction scheme is necessary for three parts of the borough. Dr. Gray again brings forward the appeal he has made in every one of his annual reports for a remedy of the grave defects of house accommodation in Holsworthy, both in regard to insufficiency and unfitness for habitation of the older cottages, where overcrowding is so often found. For Honiton, Dr. Shortridge reports, “the chief difficulty that has arisen during the year is the  
 “ever acute question of the provision of proper and sufficient  
 “cottage accommodation for the labouring classes. It appears  
 “as if this difficulty is likely, in the future, to increase rather

“than diminish.” Dr. Cooper states that in consequence of a new industry having started in Ivybridge, overcrowding is taking place, and more workmen’s cottages are required. For Lynton, Dr. Edwards reports there is still felt the want of suitable working-class dwellings, for the class of house built during the year was mainly for visitors and beyond the wages of the ordinary labourer. Dr. Toye comments strongly on the wretched condition of the cottage accommodation at Appledore, and in his remarks states that the great barrier to real improvement in Appledore is the absence of properly constructed cottages. A large number of new ones is required. Many people, who are now compelled to live in badly constructed cottages, would then move, and the overcrowding would be abated; for the inhabitants themselves are anxious to improve the condition under which they live, but until proper dwellings are provided, they are helpless. The medical officers for Salcombe, Sidmouth and Tavistock all comment on the urgent need for more houses for artisans and labourers in order to relieve overcrowding in these districts.

For the rural districts, Dr. Langran states that increased and better cottage accommodation is required in *all* the villages in the Axminster district. For Crediton, Dr. Moiser states that the accommodation is sufficient; this is probably due to the decreasing population of this district—here two houses were condemned and closed. For Holsworthy, Dr. Gray states in connection with this subject, “As to the adequacy “or otherwise of the cottage accommodation in the district, “I must, again, repeat what I have so often emphasised in “previous reports, that dwelling accommodation is by no “means adequate to the requirements of the working classes “in the district, and that an infinitesimal few possess the “ordinary sanitary conveniences. The standard of comfort, “therefore, in the cottages is a very low one.” Dr. Gray also states that in spite of the sanitary inspector being appointed the officer to act under the Housing (Inspection of District) Regulations, 1910, in February, the condition of the 160 houses inspected and reported upon by him were not taken into

consideration by the sanitary authority until the end of the year. Dr. Noy Scott, in his report for Plympton St. Mary, states that the cottage accommodation is generally good and above the average of other districts, the chief defect being dampness of walls. Dr. Body states that the house accommodation for South Molton is sufficient; three houses were found unfit for habitation, but they have been repaired. Dr. Black complains of the want of cottage accommodation, especially at Christow and Whimple, in the St. Thomas district. Dr. Brodrick reports that the house accommodation in the Tavistock district is "fairly good." For Tiverton, Dr. Pollock reports 21 cases of overcrowding, and that his district council have given instructions for an inquiry to be made as to the number of houses required in each parish, with a view to the provision of the necessary accommodation. For Torrington the medical officer of health reports the accommodation to be sufficient.

By the Housing (Inspection of District) Regulations, 1910, of the Local Government Board, made under the Housing and Town Planning Act, etc., 1909, the medical officer of health is required by Article v "to include in his annual report information and particulars in *tabular form* in regard to the "number of dwelling houses inspected under and for the "purpose of section 17 of the Act of 1909, the number of "dwelling houses which on inspection were considered to be "in a state so dangerous or injurious to health as to be unfit "for human habitation, the number of representations made "to the local authority with a view to the making of closing "orders, the number of closing orders made, the number of "dwelling houses the defects of which were remedied without "the making of closing orders, the number of dwelling houses "which after making the closing order were put in a fit state "for human habitation, and the general character of the defects "found to exist." Unfortunately very few of the medical officers have completely followed out these instructions. The facts relative to this have been gathered, as far as can be obtained, from the different reports and entered in the accom-

panying table, together with other information relative to the section of the Act of 1909.

### **COMMON LODGING HOUSES.**

No special remarks are contained in the annual reports relative to the above houses, except that of Okehampton urban, where Dr. Young states "one house had lately been "used as a common lodging-house. On inspection I found "that it was unfit for the purpose and advised the Council "to that effect." In all the other reports these houses are reported as being well looked after. No complaints were made as to their unsanitary condition. No mention is made of any increase in number.

### **WATER SUPPLY.**

Owing to the long drought during the summer, many supplies failed, in the rural districts, but no serious complaints of shortage are reported from the urban areas, which are generally supplied with good services. Unfortunately the same cannot be said for the majority of the rural areas and the same remarks made, in last year's report in regard to these, hold good for this year, and will be repeated until local authorities recognise their obligations. "Until sanitary authorities realise that "an abundant public supply of wholesome water for drinking "and domestic purposes for every village is necessary to "health and cleanliness, they have failed to carry out the "most important duty laid on them both in regard to moral "and statutory requirements, and no medical officer of health "for a rural district should rest satisfied until he sees every "village in his district so provided, for the present-day water "engineer is able by means of rams, oil engine pumps, and "other means, to overcome all the physical disabilities that "existed in bygone days."

With regard to the urban districts, the Medical Officer of Health for Bampton advises his council to increase the storage accommodation and to give a better supply to the upper part of the town. For Bideford, Dr. Gooding reports that the "Bibey" scheme is to be carried out. This will augment the

present supply and will in all probability remedy the complaints of shortage which have been complained of in days gone by.

The Ashburton water supply still retains its excellent quality and quantity; it is to be periodically analysed to ensure safety. For Dartmouth, Dr. Harris reports that there are still a large number of houses not connected with the mains. This is a condition to be regretted, both for purposes of cleanliness and to obviate the unsatisfactory prevalence of hand-flushed closets. For Heavitree, although there is an abundance of water from the Exeter supply, some wells are still in use. There is nothing to justify this procedure which must, at times, be fraught with danger. After twenty years' pleading for a new supply for Holsworthy, Dr. Gray reports that a sufficient and constant supply is now obtained, and since the waterworks were opened 182 houses have been connected with the mains. The Ivybridge Council have been successful in obtaining an Act of Parliament to provide that district with a good supply of water to connect up with the old reservoir. A dam will be placed across a pure stream on Dartmoor, the average daily flow of which is 1,500,000 gallons, and a reservoir to contain 4,000,000 gallons will be constructed and fenced around, enclosing 8 acres of land. For Exmouth, the Dolton supply has now been completed and will furnish 1,000,000 gallons of water a day. Dr. Toye reports that two new filter beds have been erected to augment the three previous ones in connection with the Melbury supply, as the latter were unable to cope with the requirements of the district. For Ottery St. Mary, the water supply of Tipton St. John still remains in an unsatisfactory condition and requires a remedy. For South Molton the service reservoir has been covered and new filter beds are to be installed, for the present ones only act as screens and allow 122 micro-organisms in each cubic centimetre of water to pass through them. Dr. Piggott again emphasises the necessity of a constant supply of water for Teignmouth, and reports that since the Paignton Council has provided a fourth Candy filter, the plumbo-solvent action of the water has been remedied. He also states that,



in spite of an undertaking to the contrary, five houses are using the contaminated Venn brook. For Tiverton, a new covered service reservoir, to hold 250,000 gallons, is to be built, in order to abate the trouble experienced by the large growth of algæ in the open reservoir.

*Rural Districts.*—For Axminster, Dr. Langran reports that an improvement in the water supply of that place is urgent. For Barnstaple, Dr. Harper reports that Instow has been connected with the Barnstaple town water-works and is now well supplied with water. The conditions of Georgeham and Combemartin still remain in their present unsatisfactory states. For Bideford, the supply at Clovelly has been increased, whilst new tanks have been constructed at Bucks Mills to prevent surface pollution. In other villages there are numerous dipping wells; many by the roadside being unprotected and liable to pollution. For Crediton, Bow and Zeal Monachorum are the only two villages not dependant on local wells, many of which are liable to pollution. The supply for Morchard Bishop still continues unsatisfactory, whilst Cheriton Fitzpaine and Stockleigh Pomeroy require attention. The supply of Poughill has been improved. For Holsworthy, all the villages depend on shallow wells, a large number of which are liable to pollution by surface water; the water from 32 of these when analysed was found to be polluted. For Okehampton, the new reservoir at North Tawton is to be covered in order to prevent the contamination of the water by the rapid growth of algæ. Plans for augmenting the supply of Chagford are being considered. The South Molton district depends principally on shallow wells, liable to pollution, 18 of which were, on analysis, found to be polluted. For St. Thomas a new supply is required for Topsham, which now depends on wells; the water from 10 of these was examined, and the analyst reported 5 as dangerously polluted, and 5 others as of inferior quality. For Tavistock, Dr. Brodrick reports that a new supply for Mary Tavy is, at last, to be carried out, an increased supply for Whitchurch is in progress, while the supplies for Bere Alston and Lifton are unsatisfactory. For the Tiverton district, the large village of Cullompton possesses no public supply (although

streams of water pass through the place), but is dependent on private wells situated in doubtful soil. A new scheme for Silverton is to be carried out. Nothing has been done to provide Willand with a new supply, and at Oakford most of the houses are supplied by a well below the churchyard. The Torrington district is chiefly supplied from unfiltered streams and shallow wells. During the year, 36 samples of water from these were analysed, and 16 were found to be polluted. In the Totnes district, the new scheme for supplying Ugborough has been carried out. Arrangements are being made to supply Marldon from the Paignton supply, and the scheme for Holne is being proceeded with.

The following is a list of places with unsatisfactory water supplies, which need attention :—

<i>Sanitary Districts.</i>	<i>Places and Requirements.</i>
AXMINSTER -	- <i>Hawkchurch, Axminster Town, Kilmington and Chardstock</i> all require new supplies.
KINGSBRIDGE (rural) -	- <i>Stoke Fleming and Aveton Gifford</i> , new supplies required.
NEWTON ABBOT (rural) -	- <i>Hennock and Ilsington</i> , new schemes not carried out.
PLYMPTON ST. MARY -	- <i>Newton Ferrers</i> , new supply required.
ST. THOMAS -	- <i>Lympstone and Topsham</i> . New supplies required.
TAVISTOCK (rural) -	- <i>Bere Alston and Lifton</i> , new supplies required.
HOLSWORTHY (rural) -	- <i>Black Torrington</i> .
LYNTON -	- Improved storage.
OTTERY ST. MARY -	- <i>Tipton St. John</i> , new supply required.
BARNSTAPLE (rural) -	- <i>Georgcham and Combemartin</i> , new supplies required.
CREDITON (rural) -	- <i>Morchard Bishop, Cheriton Fitzpaine, and Stockleigh Pomeroy</i> , new supplies required.

(Those in *italics* have been previously reported on.)

## MILK SUPPLY.

The reports on the condition of the dairies and cowsheds in the county are much the same as in previous years, and until those connected with the trade are better educated in matters of cleanliness and the liability of milk to be a carrier of disease, and the legislature steps in to enforce stringent regulations both in regard to the cows themselves, their surroundings and structure of their sheds, water supply, methods of milking, storage, conveyance, and cleanliness of milk, the milk supply of the country will still continue in its present unsatisfactory condition, with tuberculosis and other diseases remaining in our midst. For Bideford (urban) Dr. Gooding reports that 16 samples of milk were taken for analysis, one of which was found to be adulterated with 28 per cent. of water; a prosecution followed, and a fine was inflicted. He also states that one milk-cow was found in the borough suffering from tuberculosis and was slaughtered; the tuberculin test was then applied to the other members of the herd. Dr. Beesley states that some cowsheds at Budleigh Salterton are far from sanitary. For Crediton (urban) Dr. Moiser complains of the carriage (through the streets) of milk in uncovered tins. The Medical Officer of Health for Ilfracombe reports that the veterinary inspection of cows which was carried out in 1899 is again under consideration. Dr. Peile, for Sidmouth, recommends to his council that the existing regulations should be brought up to date and enforced. For Tavistock (urban), Dr. Griffin reports: "Of the 12 cowsheds  
 " which I personally inspected, in none were the floors cemented  
 " or paved as to render them impervious to moisture; nor  
 " were fluids falling on the floors conveyed by a suitable and  
 " suitably situated channel to a trapped drain outside the  
 " cowshed. Dung was not kept in a properly constructed  
 " receptacle, properly situated, and properly drained. No  
 " overalls were worn by the milkers. There was no proper  
 " systematic method of cleaning hands of milkers and teats  
 " of cows. In nearly all, the construction of the sheds was bad  
 " and the condition dilapidated." For Teignmouth, Dr.

Piggott reports that during the year all samples of all milk supplies, both within and without the district, were examined for tubercle bacilli with negative results. Dr. Harper reports that in the rural district of Barnstaple there are 60 dairies and 360 cowsheds, and for the proper supervision of them an additional inspector is required. For Newton Abbot (rural), Dr. Mapleton states that during the year in 14 cow shippens, rubble floors have been replaced by concrete, and that in many instances close-fitting boards have been placed in the ceilings to prevent dust from coming through and for the more effectual cleaning and whitewashing purposes. For Plympton St. Mary, the remarks of Dr. Noy Scott, in his report on the methods employed for obtaining a clean milk supply in his district are worthy of repetition, for they confirm what one is trying to get carried out in the elementary schools in the matter of the provision of a proper water supply and efficient lavatory accommodation. He says, "I believe the greatest difficulty of all is with the men who are employed in milking for they are not easily persuaded to adopt any 'new-fangled notions,' and they look on personal cleanliness as a 'whim.' Much good would, I am sure, be ultimately produced if the boys and girls in our rural schools were regularly taught the absolute necessity of strict cleanliness and observance of rules as to milking." In the Tavistock rural district one cowshed was condemned on account of its insanitary condition. In connection with the milk supply of the county it would seem desirable to repeat some of the remarks contained in last year's report in regard to the non-registration of many dairies in the rural districts: "A great deal of uncertainty exists as to the necessity of the registration of dairies, on account of the indefinite construction of the Dairies, Cowsheds and Milk Shops Order, 1885, in which, under Section 6 (b) 'A person who sells the milk of his own cows in *small quantities to his workmen or neighbours for their accommodation*, shall not *for the purposes of registration* be deemed to be a person carrying on the trade, etc., and need not therefore be registered.' A great many dairies, therefore, escape inspection, but are nevertheless supplying

“milk of a doubtful nature to the public, as medical officers of health hesitate to take proceedings. This is a matter to be deplored, as it should be left to the defendants to prove that they are not evading the Order, not only in regard to registration but in other matters contained in the Order.”

## **SEWERAGE.**

From a perusal of the annual reports, much work has been carried on in this connection and great attention given to the subject of the provision of sewers. From the inspection of the different districts, however, regret is felt that more attention is not given to the provision of sufficient drainage and sinks for slop water, and the paving of backyards in the vicinity of the individual homes, especially in the rural districts. There is often a great deal of evidence of the fouling, from slop water often containing liquid sewage, of the courts and soil in the immediate vicinity of dwellings, with its consequently pernicious effect on the health of the inhabitants. Ample legal powers exist for enforcing such improvements.

*Urban Districts.* The outfall sewer at Ashburton is to be lengthened in order to remove the opening further away from the main road. The new scheme for Bampton, in order to abate the pollution of the river Exe, is being carried out. At Budleigh Salterton the new scheme, costing £10,000, which was sanctioned by the Local Government Board, was commenced in January, and a public convenience consisting of a four-stall urinal and four water closets, at a cost of £220, was provided in September. The provision of a drainage scheme for Crediton is still under consideration. At Heavitree, the Whipton sewage works were found by a Local Government Board inspector directly polluting the stream running close by the works. Complaints have been received of the nuisance caused by the open manholes in South Wonford and elsewhere, whilst in the former place 2 cases of typhoid fever have occurred in the vicinity of a group of these open manholes; representation has been made by the county medical officer of health, but no remedy has been carried out by the district council.

Dr. Gray reports for Holsworthy, that the question of providing outfall sewage works for that district is daily becoming more urgent on account of the increased quantity of sewage caused by the use of the new water supply. He also reports on the necessity of the provision of a public convenience in the centre of the town. Especially is this in evidence on market days. Dr. Edwards suggests that the outfall sewer at Lynton should be extended in order to place it beyond low-water mark. At Exmouth the flushing tank scheme and relaying the defective parts of the middle level sewer have been completed. Dr. Toye for Northam again reports that nothing has been done to remedy the condition of the outfall sewers at Northam, Appledore, and Westward Ho! For Ottery St. Mary, a public urinal is required, and nothing has been done to remedy the drainage of Tipton St. John. For Paignton, Dr. Vickers reports: "Paignton drains into the sea, and at present the Council is considering a scheme for improving the same. The present system was put down many years ago, and the town has outgrown it, hence the necessity of a new scheme." For Salcombe, concerning which complaints have been received of the nuisance caused by the discharge of sewage on the foreshores, Dr. Twining reports that a scheme for re-drainage of the town is in the hands of a firm of sanitary engineers. For Sidmouth, Dr. Peile states that the inadequate flushing of the sewers still continues, and that some remedy is required to prevent flooding of the houses by sewage from the storage tank in the low-lying parts of the town. He also recommends the provision of a public convenience and lavatory accommodation for both sexes in the town. For South Molton, Dr. Wigham reports, "The sewers in North Street have too many dead ends; these require joining up for the purpose of more efficient ventilation, and I may say that I have mentioned this for several years now and I think it is quite time this work was done." Dr. Piggott reports that the main outfall sewers at Teignmouth require attention. The outfall sewerage works at Tiverton have, at a considerable cost, been remodelled on the best modern principles. At Great Torrington a new

branch sewer has been provided to prevent the overflow from the drains and traps, and thirty new inspection traps added to the borough drainage.

*Rural Districts.*—For Axminster, Dr. Langran states that the drainage of this place and Colyton are still urgent. For Barnstaple, Dr. Harper states that it is necessary to consider a scheme for the drainage of Landkey village. He complains of the want of slop-water drains generally, to prevent the pollution around back doors of houses, also that the earth closets are not kept as they should be. For Broadwoodwidge, Dr. Gibson again reports on the advantage of a separate closet for each house in the district, now being enforced by the local authority. For Crediton, Dr. Moiser states that the drainage of Newton St. Cyres is unsatisfactory. New sewers have been laid at Morchard Bishop and Cheriton Fitzpaine, whilst at Hookway the village has been refurnished throughout with new pails and good closets. For Culmstock, the new sewer at Mill Moor has been completed, all connections made, and more efficient irrigation provided for the drainage of the south side of Culmstock village. For Holsworthy, the drainage at Halwill station road has not been attended to. For Honiton, the sewerage works at Sidbury and Sidford have been cleaned out and a more efficient filtering material has been placed in the filtering beds. The drainage at Sidmouth Junction is now working satisfactorily. The sanitary inspector of this district has been successful in converting 51 privies into earth closets. For South Molton, Dr. Body complains of the difficulty found with the earth closets in not being provided with sufficient earth or ashes. He recommends that printed instructions for the proper use of these should be nailed up, by the sanitary inspector, in all closets. For St. Thomas, Dr. Black states that the new sewage works of Exminster are completed, and the effluent is also satisfactory. Most of the connections have been made to the new sewer at Ide, and that many new sewers have been constructed in several villages. For Tavistock, Dr. Brodrick complains again of the urgent necessity of the drainage of a part of Whitchurch, also that

new sewers are required for Lifton, Clearbrook and Lydford. For Tiverton, Dr. Pollock reports that the new scheme for Bradninch has been completed; he advises the extension of the outfall sewer at Oakford, which at present is a nuisance to the elementary schools. For the Totnes district a new sewerage scheme is being prepared for Galmpton.

The following list comprises the districts in which an unsatisfactory condition of sewerage, etc., exists:—

<i>District.</i>	<i>Place and Requirements.</i>
AXMINSTER - -	<i>Axminster, Chardstock, Colyton, Kilmington, Musbury, and Stockland, new drainage scheme.</i>
BARNSTAPLE (urban)	Outfall sewers. Outfall sewer works required.
BARNSTAPLE (rural)	<i>Georgeham, Bishops Tawton, and Landkey, new drainage scheme.</i>
CREDITON (urban)	<i>New scheme required.</i>
HOLSWORTHY (urban)	<i>New outfall drainage required.</i>
HOLSWORTHY (rural)	<i>Halwill Station district, drainage required.</i>
HONITON (urban)	<i>New sewer outfall works required.</i>
KINGSBRIDGE (rural)	<i>Sherford and Modbury, new works required.</i>
OKEHAMPTON (rural)	<i>Bridestowe, new sewerage scheme required (pollution of stream).</i>
OTTERY ST. MARY	<i>Tipton St. John, drainage required.</i>
NORTHAM -	<i>Appledore, Northam, Westward Ho! outfall sewers required.</i>
TAVISTOCK (rural)	<i>Clearbrook, Whitchurch, Lydford, Lifton, and Bere Ferrers.</i>
TIVERTON (rural)	<i>Cullompton and Uffculme, outfall works to prevent pollution of the river Culm.</i>

(Those printed in italics have been previously reported on.)



## SALE OF FOOD AND DRUGS ACTS, ETC.

In the two previous reports, satisfaction has been expressed at the increasing number and variety of samples of food taken for analysis by the police, the rate having risen from 1.0 per 1,000 of the population in 1908 to 1.4 per 1,000 in 1910; unfortunately, for this year a decrease has to be reported. There were 628 samples taken, against 649 for the preceding year, giving a rate of 1.10 per 1,000. The minimum rate recommended by the Local Government Board is 2.0 per 1,000. There is an improvement in the variety, for 31 different sorts of food have been taken during this year, against 28 for the previous year.

It is interesting to note the difference in the administration in the various police divisions and the rates for samples taken. The highest rate, 3.4 per 1,000, occurred in the Torquay district, whilst the lowest (0.1 per 1,000) occurred in the Torrington district. (This latter is partly accounted for as the Borough of Bideford employs its own analyst, although the population is not included in the rate.)

From the table it will be noticed that, for this year, all the divisions took samples of milk, whilst for the other important articles of food, eight only took samples of bread, nine of butter (which is now so liable to adulteration), four of flour, seven only of samples of tea and vinegar, five of preserves, two of sugar, one of cream, and no samples of cider, which is remarkable, considering the large production of this beverage in the county.

The following are the number of samples and rates per 1,000 of the population of the samples taken in each of the thirteen police divisions:—Barnstaple (including Ilfracombe), 24, rate 0.8; South Molton, 16, rate 0.9; Cullompton, 26, rate 1.0; Honiton, (which includes Axminster and Ottery St. Mary), 23, rate 0.6; Exe (which includes Heavitree, Exmouth, and Budleigh Salterton), 96, rate 2.0; Teignmouth, 45, rate 1.3; Torquay, 252, rate 3.4; Totnes (which includes South

Brent and Kingsbridge), 50, rate 1.4; Stonehouse (which includes Plympton), 40, rate 0.9; Tavistock 20, rate 0.9; Holsworthy (which includes Hatherleigh), 15, rate 1.0; Torrington, (which includes Bideford Rural and Northam), 5, rate 0.1; and Crediton (which includes Okehampton), 16, rate 0.7 per 1,000.

With regard to the seizure of unsound food, Dr. Vickers reports two seizures of diseased meat and one of fish at Paignton. Dr. Pollock reports the seizure of several tuberculosis animals which were destroyed, and at Great Torrington  $1\frac{3}{4}$  cwt. of decomposing fish were seized and destroyed. In this connection, in order to equip the various sanitary inspectors with the necessary knowledge of the appearance of the ordinary diseases in cattle, so that they can carry out their duties in the very important matter of regulating a wholesome supply of food in their districts, it is most desirable that facilities should be afforded them for attending a course of lectures and demonstrations on diseases of animals and food supply, in order that they may proceed to obtain the special certificate of the Royal Sanitary Institute granted for meat inspection. At present, as far as can be ascertained, only two of the 55 sanitary inspectors in the administrative county are qualified for meat inspection. An arrangement for this purpose could, with a little expense, be easily carried out, with the centre in Exeter.

In September of this year the Local Government Board issued a Memorandum on the procedure which should be followed in dealing with outbreaks of illness suspected of having been due to the consumption of certain foods, and directed that a copy should be sent to every medical officer of health. The memorandum should be of great service to the officer concerned, for it gives details as to the nature of any inquiry to be made and also particulars for the collection and examination of material for bacteriological examination, especially in the matter of food poisoning from the presence of "ptomaines."

The following table gives particulars of the samples of food taken by the police :—

Police Districts.	Number of Samples taken.	Different sorts of Samples taken.	Rate per 1,000 population.
A .. ..	24	7	0.8
B .. ..	16	6	0.8
C .. ..	26	11	1.0
D .. ..	23	12	0.6
X .. ..	96	13	2.0
E .. ..	45	4	1.3
F .. ..	252	26	3.4
G .. ..	50	7	1.4
H .. ..	40	3	0.9
K .. ..	20	13	0.9
L .. ..	15	8	1.0
M .. ..	5	1	0.1
N .. ..	16	6	0.7

Total Number of Samples taken. 628. (31 different sorts).

Article.	No. of Divisions (Police) taking Samples.	No. of Samples.	No. of Adulterations.	No. of Prosecutions.	Amount of Fines.
Arrowroot ..	1	3	..	..	..
Bread ..	8	39	..	..	..
Butter ..	9	51	1	1	10s. and costs.
Cheese ..	1	1	..	..	..
Coffee and Chicory	6	16	..	..	..
Confectionery ..	3	4	..	..	..
Cinnamon ..	1	1	..	..	..
Cocoa ..	2	4	..	..	..
Cream ..	1	6	..	..	..
Flour ..	4	4	..	..	..
Ginger ..	2	4	..	..	..
Golden Syrup	2	3	..	..	..
Honey ..	7	34	..	..	..
Lard ..	6	23	1	1	15s.
Linseed ..	1	2	..	..	..
Margarine ..	4	12	..	..	..

Article.	No. of Divisions (Police) taking Samples.	No. of Samples.	No. of Adulterations.	No. of Prosecutions.	Amount of Fines.
Milk ..	13	262	28	16	Fines varying from 6d. and costs to £4 4s. Total fines—£26 15s. od.
Nutmeg ..	1	1	..	..	..
Oatmeal ..	1	3	..	..	..
Olive Oil ..	1	1	..	..	..
Pepper ..	5	9	..	..	..
Preserves ..	5	14	..	..	..
Rice ..	7	20	..	..	..
Sago ..	2	3	..	..	..
Spirits and Beer	9	53	3	3	17s., 40s., 40s.
Saffron ..	1	2	..	..	..
Sugar ..	2	6	..	..	..
Tea ..	7	16	..	..	..
Tapioca ..	1	2	..	..	..
Tinned Salmon	1	1	..	..	..
Vinegar ..	7	28	4	3	5s., 5s. and costs, and one dismissed.

## POLLUTION OF RIVERS.

Under this heading it is again desirable to repeat the Order of the Local Government Board in regard to the annual report of the county medical officer of health. The report is to contain a special section on the pollution of streams within the county and steps for the prevention of pollution taken :

- (1) By the local authorities, and
- (2) By the county council.

The following facts are extracts from the reports of the district medical officers of health and otherwise, with an account of any action taken by the local authority and the county council :—

*Urban Districts.*

BAMPTON.—Greater part of the sewage carried into a stream ; the local authority is carrying out a sewerage scheme to prevent this. The county council has taken action in the matter.

CREDITON.—The river Creedy polluted by raw sewage at Fordton and by the two main outfall sewers of the town. The local authority is still discussing schemes to prevent this. The county council has, several times, made representation to the local authority concerning this.

HEAVITREE.—The brook by the side of the Whipton sewage works is polluted at times by raw sewage through an iron pipe conveying the sewage to the stream. No action has been taken by the local authority or county council.

HOLSWORTHY.—The effluent from the outfall sewers at times finds its way directly into the streams. No action has been taken by the local authority. The county council has made representation.

HONITON.—The greater part of the sewage of this town discharges into the river Otter. The local authority is applying to the Local Government Board for power to erect outfall sewer works. The county council has made representation under the Rivers Pollution Acts.

NORTHAM.—The burn on the Burrow at Westward Ho ! is polluted by an outfall sewer. Buckleigh sewage passes into a stream going through several dairy farms. No action has been taken by the local authority. The county council has made representation.

TIVERTON.—Pollution of Exe by outfall sewage works. Local authority has just installed a modern plant to diminish this condition.

*Rural Districts.*

AXMINSTER.—The river Axe is polluted by Colyton drainage. Other large villages drain into streams. No action has been taken by the local authority. The county council has made representation.

HOLSWORTHY.—In the parishes of Black Torrington and Bridgerule there is a liability of the stream to be polluted. No action has been taken by the local authority or county council.

KINGSBRIDGE.—Pollution of mill stream at Modbury still continues and no remedy is provided as yet by the local authority. The county council has threatened action under the Rivers Pollution Acts.

NEWTON ABBOT.—Several minor cases of pollution are reported at Abbotskerswell, Chudleigh, Kingskerswell, Coombe, Stoke, and Chudleigh Knighton. Outfall sewer works have been constructed to deal with the condition of the two first-named places, but no action has been taken in regard to the remainder.

TIVERTON.—The river Culm is still polluted by the sewage of Cullompton and Uffculme. It has not been remedied as yet by the local authority. Action under the Rivers Pollution Acts has been taken by the county council.

**SCAVENGING.**

This important subject does not receive the attention it should. In some of the urban districts accumulation of refuse, and a variety of utensils for storing and depositing it in the streets for the advent of the scavenger cart, which is generally uncovered, are still in evidence. In the rural districts large accumulations of manure and refuse are still to be found in close proximity to dwellings, forming breeding grounds for flies, which may carry the products of decomposition and germs of

many diseases to the nearest milk supply or other food, besides being a menace to the water contained in a not far distant surface well. The general public require to be educated to the fact that the proper place for organic refuse matter is the kitchen fire, that other refuse should not be kept longer than a week on the premises, and then only stored in water-tight covered ashbins. Local authorities should insist on proper receptacles being used for conveying house refuse to the scavengers' cart, and that this same cart is provided with suitable covers and that these covers are used. The larger sized urban districts should be provided with refuse destructors and not rely on the various "tips," which are generally breeding places for rats and myriads of flies, both of which have been proved to be "carriers" and "hosts" of some of the infectious diseases.

Dr. Elliott, of Brixham, advises his authority to erect a destructor and use the latent heat for the purpose of a disinfectant, which is much needed for that district. The medical officers for Budleigh Salterton, Crediton, Holsworthy, Northam, Seaton, Sidmouth, and Torquay all complain of the unsatisfactory condition of the receptacles for storing house refuse in their several localities. Dr. Harris has recommended his council to obtain a destructor instead of using the present method of having to haul the refuse three miles away from the town. No provision has yet been made in Stonehouse for a destructor, the absence of which is a menace to the health of the town, and has been reported on for many years by the medical officer of health.

## **SLAUGHTER HOUSES.**

It is again necessary to repeat the remarks concerning the above, viz., the conditions surrounding the slaughtering of cattle and the means for preventing the sale of unsound meat will not be remedied until private slaughter houses are abolished, public abattoirs erected, and meat inspection carried out by qualified officers. Most of the private slaughter houses do not respond to the minimum requirements for preventing the contamination of the meat prepared therein. Often are

the walls not impervious but covered with deleterious matter, while limewash and tar are used instead of properly cemented smooth walls. The floors are rarely properly paved, no ceiling provided in many, and unsatisfactory sinks connected with the main drainage of the town exist in others. In only 12 of the urban districts are the statutory notices affixed to the buildings, and only in 5 of the rural districts have urban powers been obtained for making by-laws in connection with slaughter houses. Dr. Elliott reports that there are 5 private but no public slaughter house in Brixham, and that no regular meat inspection is carried out. Dr. Gray states there are 4 slaughter houses in Holsworthy, but there are no by-laws to regulate them. An unexplainable notion exists here that the meat in the slaughter house attached to the railway station cannot be seized when unwholesome, as the carcase is said to be "in transit," but in each of the county medical officers' visits the carcasses are undoubtedly being "prepared for food," and therefore come within the meaning of the sections of the Public Health Acts dealing with seizures. For Sidmouth, Dr. Peile states that of the seven private slaughter houses in the town, only one is suitable and the remainder are objectionable. For Teignmouth, Dr. Piggott states there are seven slaughter houses and the by-laws are well observed. The licenses are only issued for one year, which has a salutary effect on the owners. He advocated a public abattoir for the town. For Torquay Dr. Dunlop states there are eight slaughter houses, but a public abattoir is badly needed. The town possesses a qualified meat inspector. A step in the right direction has been taken here, by distributing a leaflet to all butchers, describing, in simple language, the naked-eye appearances of the ordinary lesions of tuberculosis in cattle, and where to look for them.

### **BAKEHOUSES.**

There is little to report on these workshops. As a rule they are clean and fairly well ventilated and paved. The occupiers display the Abstract of the Factory Acts relative to their trade. The premises are generally whitewashed,



in accordance with the Act, and there are no underground bakehouses in any of the districts.

In the matter of bread being a means of spreading disease, the baking process is sufficient to destroy all pathological germs, but there still remains a want of sufficient protection in the distribution of bread from the time it leaves the bakehouse until it reaches the consumer. The provision of a paper bag for each loaf is surely not beyond the powers of the trade.

### **FACTORIES AND WORKSHOPS.**

No special comments are made by any of the district medical officers in relation to the factories and workshops in the different districts. The usual forms in connection with them have been filled up and attached to the annual reports. For Heavitree, Dr. Wolfe reports 29 nuisances under the Public Health Acts, 9 for want of cleanliness, and 3 for defective floors; all these were remedied. For Salcombe 3 sanitary defects were referred to H.M. Inspector, and 7 for breach of special sanitary requirements for bakehouses in the Plympton St. Mary district.

### **ADOPTIVE ACTS AND BY-LAWS.**

In the report for 1909 a list of the Adoptive Acts in operation in the different sanitary districts was given, and in last year's report the comments were:—"The Public Health Acts (Amendment Act), 1909, was the one that received least attention as it had only, or parts of it, been adopted in 16 of the urban and one of the rural areas. This is to be regretted, as it contains many sections valuable for better sanitary government." During this year, again, no local authority has made any advance in this direction except the Barnstaple urban and rural districts and that of St. Thomas. For Tiverton urban, Dr. R. Deane Sweeting, Local Government Board Inspector, in his recent inspection of the borough and his report thereon, recommends to the Council of that town that it should adopt the Infectious Diseases Prevention Act, the Public Health Acts (Amendment Act), 1909, and the Noti-

fication of Births Act, 1907. With regard to this latter Act, Teignmouth is still the only district in which it is in force. It is to be hoped that the adoption of this most useful measure may become general in the near future, seeing that it has such a bearing on infantile mortality, one of the present black spots of sanitary administration.

Little is mentioned in any of the reports in regard to by-laws. All the urban districts have building by-laws. Unfortunately the same cannot be said of the rural districts, for as yet Axminster, Broadwoodwidge, Crediton, and Holsworthy have no building by-laws. It is difficult to understand this position, seeing that the relation of the housing question to general well-being has been so much to the front of late years, and that a special Act was passed in 1909 in relation to housing and town planning.

In the matter of by-laws for slaughter houses, all the urban districts, except those of Honiton, Salcombe, South Molton, and Torrington, have adopted by-laws, but in a very few are the statutory notices affixed to the buildings. All the better administered districts in the rural areas have by-laws regulating their slaughter houses. These districts are Barnstaple, Newton Abbot, Okehampton, Plympton St. Mary, St. Thomas, and Tavistock.

Regulations as to dairies were in force in all the urban districts with the exception of Honiton; this district is taking steps to make regulations for the coming year. They are also in force in all the rural areas except those of Broadwoodwidge and Culmstock. Dr. Leah reports that by-laws for regulating common lodging houses have been made in Stonehouse.

### **MIDWIVES ACT, 1902.**

During the year, 346 midwives were registered in the Administrative County, against 344 and 327 for the two preceding years. Of these, 135 were certificated, against 138 and 105 for the two previous years. The remaining number, 191, were on the register by reason of their being in practice before the Act came in force. No addition to the list of these latter

was made, as the extension of the Rule in 1910 was not published.

The inspection of the midwives was carried out, as in previous years, by the district medical officers of health. Two visits instead of four were paid to each midwife in the urban districts, as the former number was considered superfluous. The rural midwives were, as usual, reported to be inspected twice during the year.

For the twelve months ending June, 1911, the following particulars were gathered from the forms which the medical officers were required to fill up and forward to the county medical officer twice a year:—Midwives were present at 3,275 of the births in the Administrative area. Of these 113 were still-born. Medical aid was requisitioned in 443 cases, and 28 deaths, chiefly of the children, were reported in the practice of the midwives.

Of the midwives inspected, 6, against 29 for the previous year, could not use an enema syringe; 99, against 262 for the previous year, were unable to use a catheter; 42, against 161 for the previous year, could not use a thermometer; 6, against 24 for the previous year, did not wear washable dresses. One, against 8 for the previous year, used no disinfectants; 7, against 38, kept no register; and 15, against 47 for the previous year, had no bag of appliances. It will be thus observed that there has been a general improvement all round in the matter of the midwives conforming to the rules of the Central Midwives Board.

During the year (July 1st) the Central Midwives Board issued certain new rules and additions to some of the existing rules, the chief being:—

E. Rule 5.—An addition has been added here to include a *nurse*, as well as a midwife, for disinfection purposes after attending a case of puerperal fever or any other infectious condition. This is a most useful addition, for hitherto nurses were able to evade the directions of the supervising authority in this matter.

E. Rule 11.—To this has been added: “Should a midwife “ for any reason continue her attendance after the tenth day

“the fact must be entered in her register, with the explanation  
“of the reason.”

E. Rule 13.—“The midwife *shall* take and record the pulse  
“and temperature of the patient at each visit.” This is a  
new rule, and one of wide significance, both in the matter  
of securing early medical attendance and also in helping to  
notify the hitherto unknown mild cases of septicæmia.

E. Rule 17.—After laying out a dead body for burial, there  
is the following new addition: “the midwife must now notify  
“the local supervising authority of the fact,” on a prescribed  
form, as in the case of notifying still-births or obtaining  
medical help.

E. Rule 20.—To this rule, which states the conditions  
in which the midwife must obtain medical assistance, has been  
added, “fits or convulsions, and sores on the genitals.”

F. Rule 22.—This is an entirely new rule. It deals with  
the matter of suspension of a midwife for disinfecting purposes  
after she has been in attendance on a case of infectious disease.  
If the suspension is to last more than 24 hours, the fact and  
circumstances have to be reported to the Central Midwives  
Board.

It will be seen from the above that the duties of the mid-  
wives have increased in number under the new rules of the  
Central Midwives Board, with a corresponding augmentation  
of the work of supervision. In order to minimise the burden  
placed on the midwives in the matter of reporting and procuring  
the necessary compulsory forms, the Supervising Authority  
agreed to provide the midwives, free of cost, with these forms  
at a cost of about £20. This procedure has been much appre-  
ciated by the midwives, who have now only to pay the postage,  
with the result that many more forms now reach this office  
in compliance with the rules.

There were 12 cases of puerperal fever (6 in the urban,  
and 6 in the rural districts) notified during the year, with  
nine deaths, against 7 cases with five deaths for the previous  
year, and 16 cases with eight deaths for 1909. In none of  
these cases was a midwife to blame, and the majority of the  
cases occurred in the practice of medical men.

## **BACTERIOLOGY.**

This branch of Public Health Administration is ever increasing in utility and importance, and will always redound to the credit of the County Council in having so readily provided it for the county. Expressions of gratitude for the help it affords the public health officials and general practitioners are continually forthcoming, and its increasing usefulness can be gauged by the larger number of specimens of each of the three diseases for which it is used, which reach this office. There were 220 more swabs for diphtheria than for last year, 46 more specimens of blood for the Widal test for typhoid fever, and 37 more specimens of sputum for the detection of the bacillus of tuberculosis than for the previous year.

Specimens were sent in from all the urban districts except II, against 18 for the preceding year, and from all the rural districts but one, against 5 for the previous year.

The greater number of swabs coming from the Newton Abbot urban district is to be explained by the presence of an isolation hospital in this district, and the fact that the medical officer of health is the only whole-time officer in the county. It will be noticed from the subjoined table that a large number of diphtheria swabs are reported negative. It must not be considered that this means a wastage of money in fees, but rather to be looked upon as an insurance against disease and death. In several of the districts, where the numbers seem excessive, they are accounted for by the wholesale swabbing of school children where diphtheria has broken out in a school, and the isolation of the infected child and family has not been successful in preventing the spread of the disease. In each of these outbreaks an examination of the throats of the healthy children has revealed several children, though perfectly well themselves, harbouring the diphtheria bacillus either in their noses or throats and passing them on to their susceptible schoolfellows and so prolonging the epidemic. As a rule, on the detection of these healthy "carriers" and their exclusion from schools, the disease at once abated.

The following tables give the details of the specimens sent to this office during the year :—

## URBAN.

DISTRICTS.	DIPHTHERIA.		TYPHOID.		TUBER- CULOSIS.		TOTALS.
	Positive.	Negative.	Positive.	Negative.	Positive.	Negative.	
Ashburton ..	3	9	..	..	..	..	12
Bampton ..	2	2	..	..	..	..	4
Barnstaple ..	10	12	18	15	1	7	63
Bideford ..	8	39	..	..	10	23	80
Brixham ..	36	94	..	..	..	1	131
Buckfastleigh ..	..	..	..	3	..	..	3
Budleigh Salterton ..	..	..	..	..	..	..	..
Crediton ..	8	13	..	..	..	1	22
Dartmouth ..	..	..	..	..	..	..	..
Dawlish ..	..	1	..	..	..	3	4
Exmouth ..	..	..	..	..	..	..	..
Heavitree ..	6	24	2	5	2	5	44
Holsworthy ..	1	..	..	..	..	..	1
Honiton ..	..	..	..	..	..	..	..
Ilfracombe ..	..	..	..	..	..	..	..
Ivybridge ..	..	..	..	..	..	..	..
Kingsbridge ..	3	4	..	..	1	1	9
Lynton ..	..	..	..	..	..	..	..
Newton Abbot ..	47	130	1	3	..	..	181
Northam ..	..	1	..	..	..	1	2
Okehampton ..	3	5	..	..	1	2	11
Ottery St. Mary ..	..	2	..	..	..	..	2
Paignton ..	..	..	..	..	..	..	..
Salcombe ..	9	29	..	..	..	..	38
Seaton ..	..	2	..	..	..	..	2
Sidmouth ..	..	5	..	..	..	..	5
South Molton ..	..	..	..	..	..	..	..
Stonehouse ..	..	..	..	..	..	..	..
Tavistock ..	..	4	..	..	..	..	4
Teignmouth ..	..	6	..	..	4	5	15
Tiverton ..	6	47	..	..	..	..	53
Torrington ..	..	..	..	..	..	..	..
Torquay ..	12	46	..	..	..	..	58
Totnes ..	1	2	..	1	..	..	4

## RURAL.

DISTRICTS.	DIPHTHERIA.		TYPHOID.		TUBERCULOSIS.		TOTALS.
	Positive.	Negative.	Positive.	Negative.	Positive.	Negative.	
Axminster ..	..	..	..	1	..	1	2
Barnstaple ..	2	6	1	..	..	3	12
Bideford ..	8	66	..	2	..	..	76
Broadwoodwidge ..	..	1	..	..	..	2	3
Crediton ..	3	3	..	..	..	..	6
Culmstock ..	20	89	..	2	..	3	114
Holsworthy ..	3	6	..	..	..	..	9
Honiton ..	..	12	..	..	..	..	12
Kingsbridge ..	..	..	..	..	..	..	..
Newton Abbot ..	4	20	..	..	..	1	25
Okehampton ..	..	..	..	..	..	2	2
Plympton St. Mary ..	1	23	1	2	..	1	28
South Molton ..	1	3	..	..	..	..	4
St. Thomas ..	18	20	1	16	1	1	57
Tavistock ..	..	1	..	..	..	..	1
Tiverton ..	..	1	4	1	..	..	6
Torrington ..	..	2	..	..	..	..	2
Totnes ..	2	6	1	1	..	..	10

## TOTAL NUMBER OF SPECIMENS, WITH RESULTS.

	DIPHTHERIA.		TYPHOID.		TUBERCULOSIS.		TOTALS.
	Positive	Negative	Positive	Negative	Positive	Negative	
URBAN -	155	477	21	27	19	49	748
RURAL -	62	259	8	25	1	14	369
TOTALS -	217	736	29	52	20	63	1117

## ELEMENTARY SCHOOLS.

In the memorandum issued by the Local Government Board to all district medical officers of health for their guidance in compiling their annual reports under "B. Sanitary Circumstances of the District," there is a special reference to schools, viz., *the annual report should include a statement as to schools, especially elementary schools, sanitary condition of, including water supply, action taken in relation to the health of the scholars, and for preventing the spread of infectious disease.* In reference to schools, the Memorandum on Medical Inspection of Children in Elementary Schools (circular 576), issued by the Board of Education in November, 1907, dealing with the duties thrown upon local education authorities in this respect by Section 13 of the Education (Administrative Provisions) Act, 1909, and also Circulars 582 and 596 issued by the Board of Education in February and August, 1908, should be consulted. *The above Act does not confer powers in supercession of those heretofore exercised generally in a public health sense by sanitary authorities under previous enactments; rather it is supplementary to existing Public Health Law in that it requires supervision of the health of the individual child.* It is, therefore, to be hoped that, now the medical officers of health are duly notified by the head teachers of all suspicious cases of illness of an infectious nature occurring among the children in the elementary schools, the schools will be more frequently visited by the medical officers with a view for better sanitary surroundings of the children, and also as a means of investigating the outbreak of infectious diseases. It is not too much to suggest that as the medical officer of health is now chiefly employed in checking the spread of infectious disease, he should *immediately* on receipt of the information of the outbreak of any of the infectious diseases, whether notifiable or not, at once visit the school and make it the centre for his investigations and actions.

For the urban districts, the Medical Officer of Health for Bampton reports that in the Shillingford and Petton school the sanitary arrangements and cloakroom accommoda-



tion are not adequate, also that the closets are too close to the school.

At Tiverton, the weekly spraying of the schools with a disinfectant is still being carried out. This procedure was introduced when diphtheria had almost become endemic in the town, and it has doubtless had beneficial results.

For the rural districts, Dr. Betts reports that nearly all the schools in the Bideford district were closed for a month on account of the prevalence of poliomyelitis. Dr. Date reports that the drainage of Hemyock school has been completely re-organised and the closets supplied with a constant supply of water for flushing purposes. Dr. Young, for Okehampton, reports the want of improved sanitary accommodation at Exbourne, and that Bondleigh school is still unprovided with a proper water supply.

The medical inspection of children under Section 13 of the Education (Administrative Provisions) Act, 1909, has been duly carried out, and the results published in the Annual Report of the School Medical Officer, which was issued in March, 1912.

During the year, the following schools were closed for the different infectious diseases :—

Closed by Sanitary Authority.	Closed by School Medical Officer.	Closed by Managers.
<p><b>Acute Poliomyelitis.</b></p> <p>Moretonhampstead. Salcombe. Westleigh.</p>	<p>Alwington. Ashwater. Bradworthy, C. Buckland Brewer, C. Bucks Mills. Clawton, C. Clovelly. Chillaton. East and West Prawle. Filleigh. Georgenympton. Mariansleigh and Romansleigh.</p>	<p>Halwill, C. Salcombe Regis.</p>

Closed by Sanitary Authority.	Closed by School Medical Officer	Closed by Managers
<p><b>Acute Poliomyelitis</b> <i>continued.</i></p>	<p>Marwood, C. Marwood, End. Milton Damerel. Milton and Kelly. Ogwell, C. Parkham, C. Pyworthy. South Molton, Infants' South Molton United. Sidbury and Sidford, Infants. Sheepwash. Stowford. Tetcott. Thornbury. Woolsery, C. Welcombe.</p>	
<p><b>Chicken Pox.</b></p>		<p>Chivelstone, East Prawle, C. Meavy.</p>
<p><b>Diphtheria.</b></p> <p>Broadclyst. Dunkeswell Abbey. Dunsford. Hemyock, C. Monkleigh. Shirwell. Tamerton Foliot, Dean's Charity.</p>	<p>Crediton, Hookway.</p>	<p>Ashreigney. Rewe and Netherexe.</p>
<p><b>Measles.</b></p> <p>Bickleigh (Plympton). Brixton, Ch. Braunton. Beatord, C. Budleigh Salterton. Chardstock, Ch. Dartington. Kingskerswell, Infants', Ch. Ottery St. Mary, Infants', C. Swimbridge, Par.</p>	<p>Aylesbeare. Alphington, Infants', C. Ashreigney. Appledore, Infants', C. do, Infants', Ch. Bridford. Broadclyst. Beer, Ch. Bradninch, Infants', C. Burrington. Bondleigh. Crediton, Landscore, Infants', C.</p>	<p>Broadwoodkelly, Ch Burlescombe, Ch. Chawleigh. Dartmouth, C. Exmouth, Littleham, Ch. North Molton, Heasley Mills. Rackenford. Shillingford and Petton, C. Sampford Spiney, C. Sheepstor.</p>

Closed by Sanitary Authority.	Closed by School Medical Officer.	Closed by Managers.
<p><b>Measles</b>—<i>continued.</i></p>	<p>Crediton, Hayward's, Infants'.            Chulmleigh, Infants'.            East Stonehouse, St. Paul's.            Exmouth, Ch., Infants'.            Exmouth, C., Infants'.            Heavitree, P., Infants'.            Heavitree, C., Infants'.            Ilfracombe, Ch., Infants'.            Kingston, C.            Lapford, C.            Lymptone, Infants'.            Landkey, Ch.            Landkey, W.            Morteheo, C.            Newton Abbot, Marsh.            North Molton, C.            Otterton.            Plymstock, Oreston, Infants'.            South Wonford.            Tawstock, Holliwell.            Uffculme, Infants', C.            Whipton.            Winkleigh, C.            Woolacombe, Infants'.            Yarnscombe, C.</p>	<p>Sheldon.            Twitchen.            Totnes, Bridgetown.            Walkhampton, Lady Modiford's.</p>
<p><b>Mumps.</b></p> <p>Marland St. Peter.            Topsham, C., Infants'.</p>	<p>Tavistock, Infants'.</p>	<p>Bulkworthy.            Coryton.            Huntshaw.            Welcombe.</p>
<p><b>Scarlet Fever.</b></p> <p>Modbury, C.            Newton Abbot, Bearne's, British.</p>	<p>Holcombe Burnell.</p>	<p>Up-Ottery, C.</p>

Closed by Sanitary Authority.	Closed by School Medical Officer.	Closed by Managers.
<p><b>Sickness.</b></p> <p>Challacombe.</p>	<p>Newton Abbot, High-week, C.</p>	<p>Chulmleigh, Infants', C. Holcombe Rogus, Mrs. Rayer's Luppitt. Sandford, New Buildings.</p>
<p><b>Whooping Cough.</b></p> <p>Parracombe. Sampford Courtenay, Sticklepath, C.</p>	<p>Bishopsteignton, Luton. Broadwoodkelly. Brixham, Furzeham, Infants'. Brixham, Lower, Infants', Ch. Brixham, Baker's Hill, Infants'. Broadhembury, Ch. Combeinteignhead, C. Combe Martin, Infants', C. Cullompton, Infants'. Holbeton, C. Heavitree, Par., Infants'. Kentisbeare. Milton Damerel. Marldon, Ch. Mothecombe.</p>	<p>Tavistock, Gulworthy, C.</p>

## METHODS OF DEALING WITH INFECTIOUS DISEASES.

As stated in last year's report, the recognised methods of dealing with infectious diseases are in vogue in some of the sanitary districts, such as the isolation of the patient either at home or in an isolation hospital, where such is provided, the use of disinfectants, the distribution of literature bearing on the particular disease in question, and the disinfection

of the person and home after the case has terminated. The two most important matters, viz., isolation of the patient in a hospital, and the proper disinfection of clothing by steam, are not possible of execution in the majority of districts, as the facilities for such do not exist. It is with great pleasure that, at last, tuberculosis has been officially recognised as an infectious disease, and duly made compulsorily notifiable in all cases, rich and poor alike, so that now it can be dealt with by sanitary authorities.

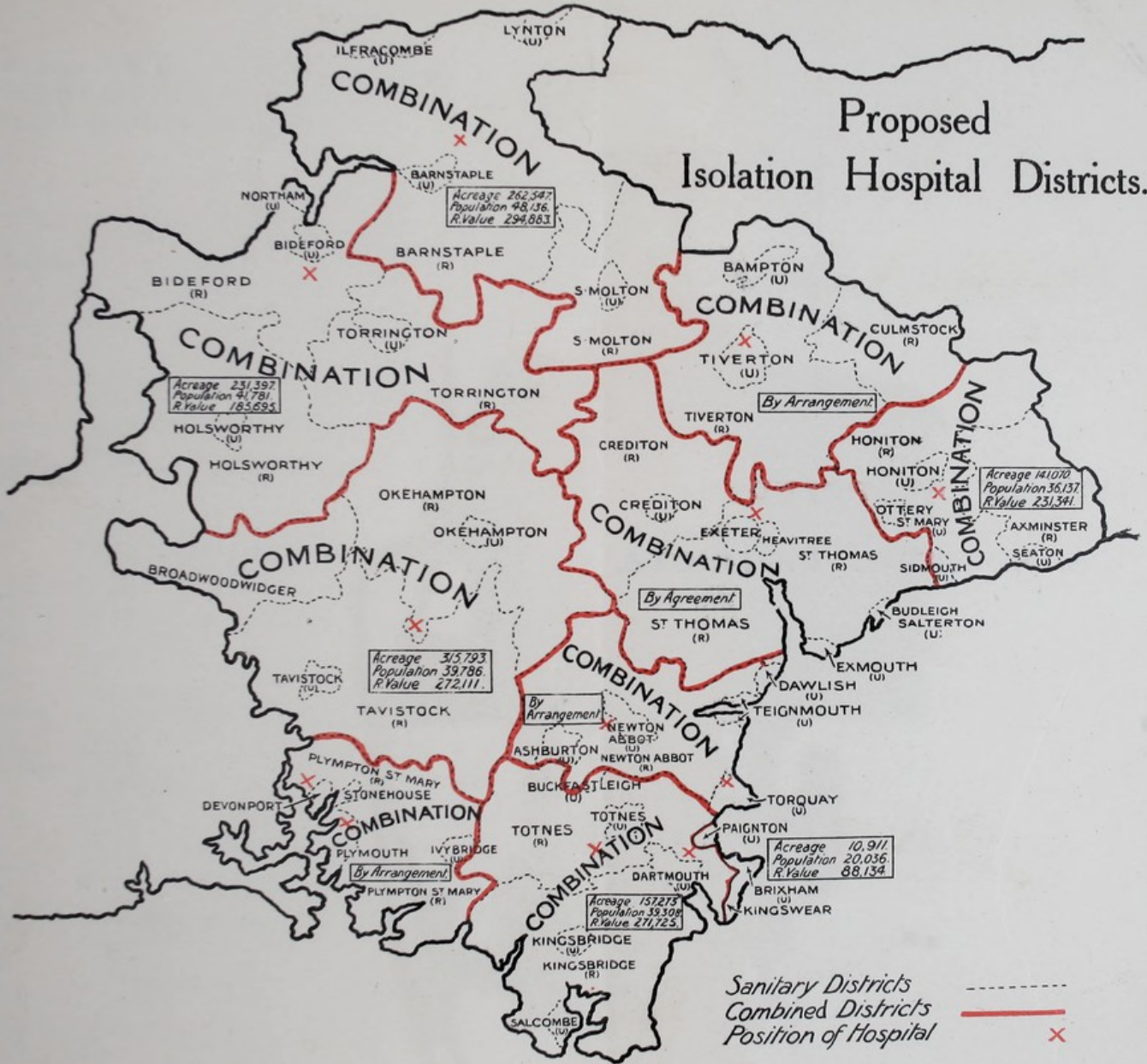
It is again necessary to draw attention to the duties of the county medical officer, as contained in the order of the Local Government Board, 1910, in connection with isolation hospital accommodation. He is required to enter in his Annual Report a "section as to the isolation hospital accommodation available for each county district, and as to the steps which should be taken to remedy any deficiency which may exist."

The following table gives the accommodation available in each sanitary district, and from it can, at once, be seen the totally unprepared state of the majority of the districts for dealing with infectious diseases. This was particularly brought into evidence last summer when acute poliomyelitis assumed an epidemic form. There is no doubt that several cases could have been prevented had hospital accommodation been available. This condition was strongly commented on by Dr. Reece in his report to the Local Government Board, after his investigation of the outbreak.

The county medical officer has duly considered this matter and has made a special report to the Public Health and Housing Committee, together with a map showing the districts in which the county could be divided for isolation hospital purposes. These districts could also be brought into the scheme for dealing with hospital cases of tuberculosis under the National Insurance Act. A copy of the map is appended.

It is not suggested that the whole county should be taken

# Proposed Isolation Hospital Districts.





in hand at once, but that a beginning should be made in one district, and for this purpose it would be advisable to begin with the north-west part of the county.

Urban Districts.	Accommodation for Ordinary Infectious Diseases.	Accommodation for Small-pox Diseases
Ashburton ..	Nil .. ..	Nil
Bampton ..	Nil .. ..	Nil
Barnstaple ..	Hospital (14 beds for three diseases)	Nil
Bideford ..	Hospital 9 beds for one disease) ..	Nil
Brixham ..	Nil .. ..	4 beds
Buckfastleigh ..	Nil .. ..	Nil
Budleigh Salterton ..	Use of Exeter Sanatorium ..	Nil
Crediton ..	Nil .. ..	Yes
Dartmouth ..	Nil .. ..	Nil
Dawlish ..	Use of Exeter Sanatorium ..	Nil
Exmouth ..	Use of Exeter Sanatorium ..	Nil
Heavitree ..	Isolation Hospital ..	Nil
Holsworthy ..	Nil .. ..	Nil
Honiton ..	Nil .. ..	Nil
Ifracombe ..	Hospital .. ..	Hospital
Ivybridge ..	Nil .. ..	Nil
Kingsbridge ..	Nil .. ..	Nil
Lynton ..	Hospital .. ..	Nil
Newton Abbot ..	Joint Hospital (with Rural, 26 beds) ..	Nil
Northam ..	Nil .. ..	Nil
Okehampton ..	Nil .. ..	Nil
Ottery St. Mary ..	Nil .. ..	Nil
Paignton ..	Hospital .. ..	Nil
Salcombe ..	Nil .. ..	Nil
Seaton ..	Nil .. ..	Nil
Sidmouth ..	Use of Exeter Sanatorium ..	Nil
South Molton ..	Nil .. ..	Nil
Stonehouse ..	Use of Devonport Hospital (15 beds)	Nil
Tavistock ..	Nil .. ..	Nil
Teignmouth ..	Hospital (8 beds) ..	Nil
Tiverton ..	Joint Hospital (with Rural, 23 beds) ..	Nil
Torrington ..	Nil .. ..	Nil
Torquay ..	Hospital .. ..	Hospital
Totnes ..	Nil .. ..	Nil



Rural Districts.	Accommodation for Ordinary Infectious Diseases.	Accommodation for Small-pox.
Axminster ..	Nil .. ..	Nil
Barnstaple ..	Nil .. ..	Nil
Bideford ..	Nil .. ..	Nil
Broadwoodwidge ..	Nil .. ..	Nil
Crediton ..	Nil .. ..	Nil
Culmstock ..	Nil .. ..	Nil
Holsworthy ..	Nil .. ..	Nil
Honiton ..	Nil .. ..	Nil
Kingsbridge ..	Nil .. ..	Nil
Newton Abbot ..	Joint Hospital (with Urban, 26 beds) ..	Nil
Okehampton ..	Nil .. ..	Nil
Plympton St. Mary	Use of Plymouth Borough Hospital	Hospital
South Molton ..	Nil .. ..	Nil
St. Thomas ..	Use of Exeter Sanatorium ..	Nil
Tavistock ..	Nil .. ..	Nil
Tiverton ..	Joint Hospital (with Urban, 23 beds) ..	Nil
Torrington ..	Nil .. ..	Nil
Totnes ..	Nil .. ..	Nil

### SYSTEMATIC INSPECTION.

Apart from the systematic inspections now required by the provisions of the Housing and Town Planning Act, 1909, the annual reports of the district medical officers are supposed to contain an account of all general and special inquiries made during the year, *and an account of the work performed by the inspector of nuisances during the year*, including the statement supplied in pursuance of article xx (16) of the General Order of the Local Government Board (13th December, 1910), in relation to the duties of sanitary inspectors. "He shall " as soon as practicable, after the thirty-first day of December " in each year furnish the medical officer of health with a " *tabular* statement containing the following particulars:—

" (a) The number and nature of inspections made by him " during the year.

" (b) The number of notices served during the year, distinguishing statutory from informal notices.

" (c) The results of the service of such notices."

It is to be regretted that many of the reports do not contain this information.

## PORT DISTRICTS.

### BARNSTAPLE.

During the year, 113 vessels (87 coasting vessels, 14 ships) from foreign ports, and 12 coasting steamers), against 142 and 147 for the two preceding years, were inspected at this port. No cases of infectious diseases were reported, with the result that the hospital ship *Nymphen* was not used. She is, nevertheless, kept in good condition, and ready for any emergency. No sanitary defects were found on any of the vessels.

### DARTMOUTH AND TOTNES.

During the year, 1,476 vessels, with a gross tonnage of 666,079, against 1,276 vessels, with a tonnage of 639,575 for the previous year, entered the port. Of this number of vessels, 645 were visited and inspected, and 35 were found to have sickness on board. On one ship only was a notifiable infectious disease found, and that consisted of two cases of typhoid fever on board the SS. *Nordepol* from Marseilles. These cases were removed to the hospital ship *Mayfly*, where one died and the other recovered. The probable cause was due to infected tank water. The tanks were pumped out and cleaned, the infected quarters were fumigated, and the bedding and effects destroyed. Six cases of syphilis were discovered among the different crews. Dr. Harris strongly comments on the want of means at present possessed to prevent these men from conveying the infection to their shipmates. Their mode of living and confined quarters provide such opportunities for easily spreading the disease.

The condition of the hospital ship is not satisfactory. In the first place it is impossible to keep her dry, the decks leak and allow water to enter the ward. Secondly, drinking water supply can only be obtained at high water as the ship is on the mud, on account of her not being seaworthy enough to be afloat. This latter condition is also a serious one, as she

cannot be boarded except just before high water, and in case of urgent need for medical attendance disastrous results might occur. Dr. Harris suggests a conference of the port and urban authority, with a view to discussing the advisability of providing a new isolation hospital on shore for the use of both authorities.

Some better provision for hospital accommodation seems urgently necessary, seeing that each year the number of vessels entering the port is gradually increasing.

### **EXETER.**

During the year, 356 vessels entered the port, against 188 for the previous year, and 125 for 1909. Of these, 56 came from foreign ports. No infectious diseases were discovered, and only one sanitary defect. The medical officer of health suggests several improvements on the hulk, including the provision of two water closets. The Inspector of Imported Foods reports that he has inspected two cargoes of sugar, four of potatoes, two of fish, and two of onions, but found nothing to call for any action.

### **KINGSBRIDGE AND SALCOMBE.**

During the year, 441 vessels, against 423 for the previous year, entered this port. The medical officer of health inspected 32 of the vessels, and the sanitary inspector 25. No infectious diseases or sanitary defects were found. To show the unprepared condition of this authority for dealing with any infectious disease, the following appears in the report of the medical officer of health.

*Hospital Accommodation.*—None.

*Means of Conveyance of Sick from vessel.*—None.

*Boat for inspection.*—None.

*Mortuary.*—At Salcombe Cemetery, not belonging to authority.

## PLYMOUTH.

During the year, 3,356 vessels, against 3,528 and 3,468 for the two previous years, were inspected by the sanitary officials. Of these, 127 were personally examined by the medical officer of health. 179 vessels, carrying 44,647 crew and 63,531 passengers, arrived during the year, from plague and cholera-infected ports. 516 cases of sickness and 62 deaths were investigated by the officials. Of the cases of sickness, 238 were of an infectious nature. Notices to remedy insanitary defects were served in 243 cases.

Of the number of vessels inspected, 2,975 were British, 131 German, 77 French, 56 Dutch, 48 Norwegian, 41 United States, 13 Russian, and the remainder of various nationalities.

The quantity of unsound meat voluntarily surrendered as unfit for consumption consisted of 5 lbs. of fish, 30 lbs. of bread, 22 lbs. of biscuits, and 80 lbs. of potatoes, which were being issued as part of the crews' rations.

Nineteen vessels arrived from cholera and plague-infected ports to discharge cargo, and in each case were dealt with, strictly in accordance with the Local Government Board Orders of 1907.

Of the 516 cases of sickness investigated during the year, 33 were cases of pulmonary tuberculosis, whilst of the 62 deaths 7 occurred from the same disease on the voyage.

No cases of cholera or plague were brought to the port during the year. In April, the SS. *Oceanic* arrived from New York with a case of small-pox on board. Through the use of a wireless message, everything was ready for the reception of the patient, disinfection, etc., with the consequence that no delay was caused to the progress of the ship. Another triumph for wireless telegraphy is thus established. The patient was removed to the hospital ship *Flamingo*, and recovered. In May, the SS. *Egypt* arrived from Bombay, with a case of pronounced

semi-confluent small-pox. The case was removed to the isolation ship, sick quarters were disinfected, the bedding was destroyed, and the usual precaution with regard to the other passengers taken. The case ended fatally, through dysenteric complications. In July, a case of typhoid was brought to the port; all precautions were taken, and no further case was reported. In October the SS. *Serbistan* arrived from the Persian Gulf, reporting one death from cholera in a coolie, as having occurred on the voyage. The vessel came into the G.W. Docks, and was subject to the strict precautions of the Cholera Regulations, with satisfactory results.

The medical officer of health gives details of the enormous quantities of foodstuff examined, and the quantities condemned under the Foods Act, 1909, and an account of the inspection by a Local Government Board inspector of the methods adopted by the sanitary authority for carrying out their duties, a satisfactory report of which was forthcoming. The medical officer of health also gives an account of the accident to the hospital ship *Flamingo* and the assistant caretaker on board, by a steamship dragging her anchors during a gale and coming across the bows of the *Flamingo*. The vessel has been repaired, and the caretaker is making satisfactory progress.

## TEIGNMOUTH.

During the year, 684 vessels, against 702 and 725 for the two previous years, arrived at this port. 65 came from foreign ports. 229 vessels were inspected, 48 of which, coming from foreign ports, were examined by the medical officer of health. No infectious diseases were reported. 35 vessels had dirty forecastles, for which the usual notices were served. The Bitton isolation hospital, for the use of the port and urban authorities, is always ready for the reception of any infectious disease. No arrangement has yet been made for a mooring station.

## METEOROLOGY, 1911.

The following table, taken from the quarterly reports of the Registrar General, give the particulars of the weather in the county for the year:—

District.	Rain days.	Rainfall in inches.	Mean Temperature.	Bright Sun's ine in hours.
<i>1st Quarter.</i>				
North Devon .. (Woolacombe)	46	5.64	43.3	273
South Devon .. (Plymouth)	44	7.85	42.7	254
S.W. England ..	47	7.43	41.1	240
<i>2nd Quarter.</i>				
North Devon .. (Woolacombe)	29	4.84	53.7	675
South Devon .. (Plymouth)	33	5.10	53.9	650
S.W. England ..	35	6.49	52.4	626
<i>3rd Quarter.</i>				
North Devon .. (Woolacombe)	34	4.99	63.9	785
South Devon .. (Plymouth)	29	6.68	63.9	818
S.W. England	29	5.34	62.8	737
<i>4th Quarter.</i>				
North Devon .. (Woolacombe)	71	13.69	49.3	245
South Devon .. (Plymouth)	68	18.35	48.7	328
S.W. England	69	17.54	46.9	233
TOTALS.				
North Devon .. (Woolacombe)	180	29.16	52.5	1978
South Devon .. (Plymouth)	174	37.98	52.3	2050
S.W. England	180	36.80	50.8	1836

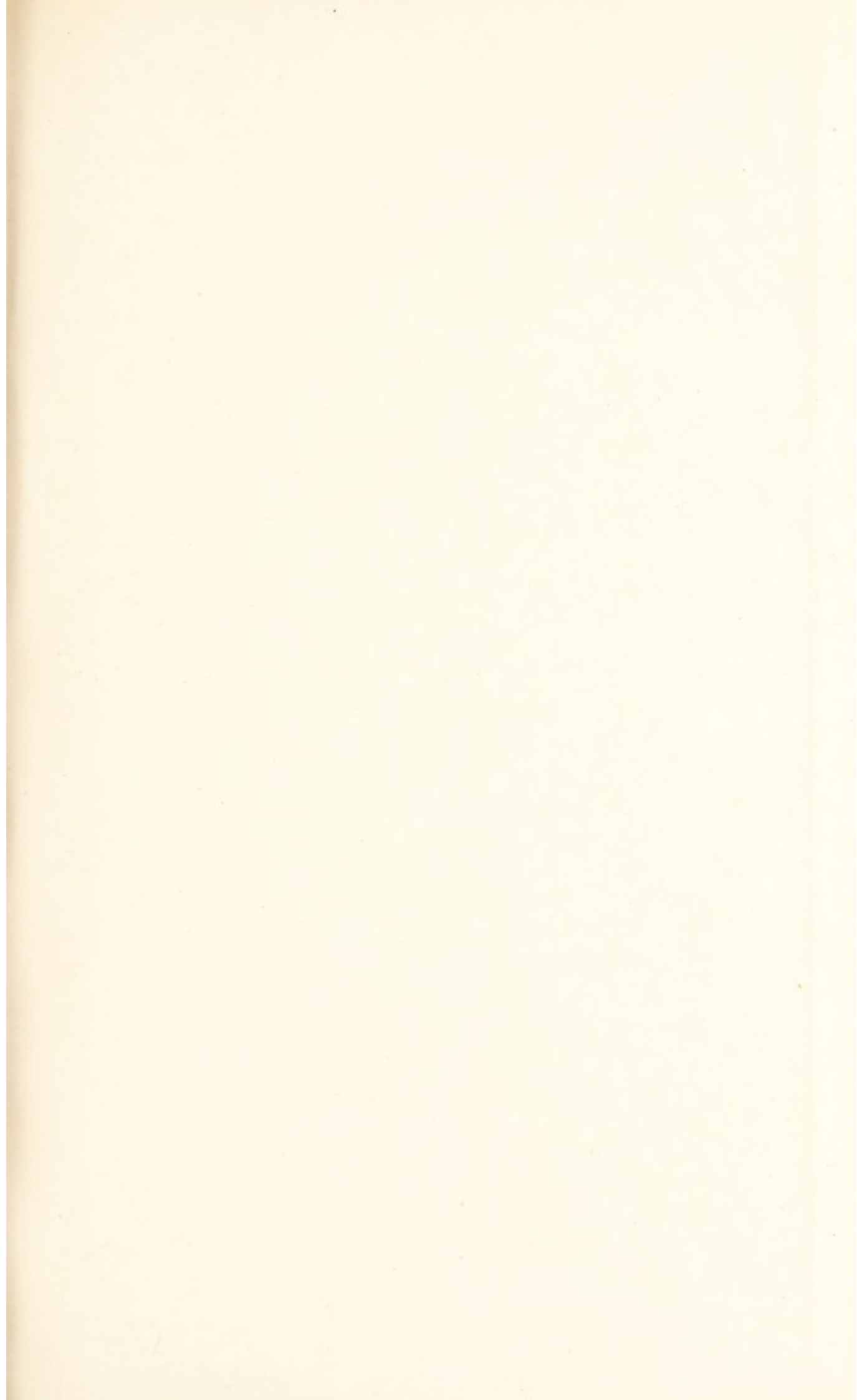
FIRST QUARTER.—The quarter was noted for its mildness and long spells of dry weather, the rainfall being nearly 2 ins. below the normal. Cullompton was noted for its excess of sunshine, 21 hours above the average.

SECOND QUARTER.—This quarter was, upon the whole, fair and warm, with long periods of dry weather in the early parts of April and the second half of May. The mean temperature was above the average. The rainfall was below the average. There were 17 continuous dry days at Barnstaple, and 23 continuous dry days at Sheepstor in May. The duration of bright sunshine was in excess of the average

THIRD QUARTER.—Until the middle of September the weather was exceptionally fine, warm and dry, with occasional spells of heat of almost tropical severity. Early in August, the thermometer rose to a higher level than in any time for the last fifty years. The drought lasted for as long as 29 days at Teignmouth and Torquay. The duration of bright sunshine was largely in excess of the average, and the highest registered since the general establishment of recording instruments in 1901.

FOURTH QUARTER.—With the exception of about a fortnight of fair, dry weather in the early half of October, the weather was continuously rough and unsettled. Gales were frequent. Owing to the large predominance of south-west winds the thermometer was as a rule above the average, reaching  $69^{\circ}$  at Sheepstor on October 12th. The rainfall was everywhere in excess, there being as much as 18 ins. at Sheepstor during December. The duration of bright sunshine was about the average. Woolacombe had 127 % of the average in October, and Torquay had 168 % of the average in December.

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**TABLE VI.**



**TABLE XVI.**

**SUMMARY OF  
SANITARY INSPECTORS' REPORTS.**

