#### [Report 1913] / Medical Officer of Health, Newton Abbot R.D.C., Newton Abbot U.D.C., Dawlish U.D.C.

#### **Contributors**

Newton Abbot (England). Rural District Council.

#### **Publication/Creation**

1913

#### **Persistent URL**

https://wellcomecollection.org/works/dmnfmebq

#### License and attribution

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

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

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



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

### ANNUAL REPORT

OF THE

PUBLIC MEALTH

OF THE

# NEWTON ABBOT RURAL NEWTON ABBOT URBAN

AND

## DAWLISH URBAN SANITARY DISTRICTS.

FOR 1913.

BY

H. B. MAPLETON, M.A., M.D., D.P.H.

MEDICAL OFFICER OF HEALTH.

#### RAINFALL IN 1913.

This was at nearly all the stations, slightly in excess of the average, but much below that of the previous year. January was considerably the wettest month, while March, April, October and November were above the normal. On the other hand very little rain fell in June, July and August, and a somewhat prolonged drought was the consequence; as compared with 1912, a decrease was shown at all the fifteen stations, varying from 15 inches at Manaton to 915 at Ilsington, a wide difference for places only a few miles apart. The mean worked out at 578.

The lowest was again registered on the coast, Dawlish West 33'20; and Dawlish East 33'69; while Leusdon (66'73), and Manaton (61'15), showed the most. In relation to the average fall of previous years, out of 13 stations at which the comparison is possible, eleven marked an increase varying from '56 at Broadhempston to 11'10 at Blackingstone, with a mean of 3'62, while Ideford and Trusham, both on the Western slopes of Haldon, showed a small deficit ('49 and 1'11 respectively).

On the whole the water supplies held out very well during the long dry period, except in the south western part of the District, where shales and limestone predominate. Wells in the sandstone showed no signs of shortage.

Average	12.5 30.32 30.32 34.12 41.56 34.12 32.95 63.00 54.55 36.40 13:23 36.40 14:23 36.40 3
1912	49.09 35.943 37.313 37.313 41.973 40.49 53.94 61.80 61.80 61.80 45.94 46.94
Total 1913.	25.54 25.55
December	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Мочетрег	5.054.30 3.945.42 1.734.13 1.193.19 3.18.618 5.724.59 6.449.01 6.449.01 5.735.36 5.735.36 6.449.01 5.735.36 5.735.36 6.449.01 7.998.25 5.735.36 6.449.01 7.998.26 5.735.36 6.449.01 7.998.26 5.735.36 6.449.01 7.998.26 5.735.36 6.449.01 7.998.26 5.735.36 6.449.01 7.998.26 5.735.36 6.449.01 7.998.26 5.735.36 7.998.26 7.9
October	The way to the same of the sam
September	762.42 48.3.76 48.3.76 68.2.32 70.2.72 70.2.72 85.3.96 68.2.39 11.6.2.40 11.6.2
Asugua	
Luc	0.000 4 4 4 4 4 4 5 6 5 6 5 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
aunc	250 550 550 550 550 550 550 550 550 550
May	0000004404040404400
lirqA	6.535.95 5.695.53 5.695.53 5.695.72 3.763.64 6.276.10 6.276.10 6.276.19 6.026.14 6.026.14 6.026.14 6.026.14 6.026.14
March	766 983 983 983 983 983 983 983 983 983 983
February	2011-000-01-0000
above sea level	38-18-18-88-18-86-18-80-18-80-18-80-18-80-18-80-18-80-18-80-18-80-8
Height in feet	200 135 185 185 185 200 300 300 1090 1090 1090 1090 1090 1090
STATIONS.	Sovey, Brimley Broadhempston, School Dawlish East, Burrows Haldon, Thorns Hennock. Mardon Geford, Rectory Isington, School Manaton, School Moreton, Blackingstone Moreton, Rectory Moreton, Rectory Newton Abbot, High wee Trusham, Rectory

The averages in the last column are for 5 years at Manaton; 6 at Broadhempston; 7 at Haldon Thorns; 8 at Leusden; 11 at Dawlish East; 12 at Highweek and Moreton Rectory; 14 at Dawlish West; 17 at Blackingstone; 18 at Kingskerswell; 26 at Ideford and Trusham; and 36 at Hennock.

I am indebted for the above figures to the Revs. C. F. Benthal (West Dawlish); O. H. Cary (Trusham); S. Dewey (Moreton Rectory); and G. J. Ford (Ideford); Messrs. J. Bancroft (Leusdon); W. J. Burnett (Ilsington); S. C. Chapman, Water Engineer to the Torquay Corporation (Blackingstone and Mardon); S. F. C. Churchward, Surveyor (Dawlish East, and Thorns); E. A. Foster (Kingskerswell); F. H. Jones (Manaton); C. C. Mole (Broadhempston); and E. Underdown (Bovey Tracey).

#### Comparative Table.

PLACES.		Annual death-rate per 1,000 of population									
	Birth-rate	General Death-rate	From Seven Zymotics	Small-pox	Measles	Whooping	Scarlatina	Diphtheria	Continued Fevers, Typhoid, &c.	Diarrhœa	Deaths under one year to every 1000 births
*England & Wales Newton Abbot Rural Newton Abbot Urban Dawlish Urban	22·3 19·0 18·1 14·6	13·1 13·4 13·9 12·0	·84 ·31 1·23 ·73	-00	·20 -36	12 10 36 24	*05 — — -24	·11 ·07	*04 	·32 ·21 ·22 ·24	96 92 72 50

<sup>\*</sup> less 241 towns.

#### Deaths in Public Institutions.

		1	Local Distribution of Mortality									
Newton Urban	Institutions	Newton Urban	Newton Rural	Dawlish	Torquay	Teignmouth	Ashburton	Visitors	Total			
Newton Rural	Bovey Cottage Hospital Moreton Cottage Hospita Torquay Isolation Hospita	j'	1 3		10			1	2 3 10			
Newton Urban	Hospital	21	11 1 1	4	40	2	2	2 1	82 13 4			
Dawlish Urban	Cottage Hospital			4				3	7			
Totals		35	17	8	50	2	2	7	121			

#### ANNUAL REPORTS

1913.

#### 1.- NEWTON ABBOT RURAL.

FEATURES.—The PHYSICAL district sents two distinct features. The central portion is occupied by a low lying area of irregular shape, being 8-0 miles by 2-3 in its greatest dimensions, and drained by the River Teign and its tributaries. This was formerly the site of a lake belonging to the miocene geological period; and the soil is composed of beds of clay, quartzose sand -the washings from the surrounding hills-and lignite, which at one point at least attain to a depth of over 500 feet. The working of the clay constitutes a special source of wealth and trade in the neighbourhood. This level area is bounded by hills of red breccia or sandstone (on the coast) green sand, shales, and limestone; to the westward by the igneous bosses of Dartmoor, which rise from the valley to an elevation of 1,500 feet at Rippon Tor, and culminate near the margin of the district in the mass of Hameldown, 1,750 feet above sea level. These constitute uplands, which, with their wooded slopes, pure moor breezes, and abundance of water, are altogether faultless as far as natural endowments go. variety of climate is well marked; the warm and sheltered combes, luxuriant in foliage, which run down to the sea, or the river valleys—as, for instance, Bishopsteignton, Coombe, or Lustleigh-are at one end of the scale, whereas at the other lie Moretonhampstead, Manaton, and Ipplepen, on uplands of considerable elevation with lower barometric pressure.

OCCUPATION.—Dairy farming and agriculture constitute the chief means of livelihood in large portions of the district, which is within easy access of several populous urban communities; this includes market gardening, especially in the parish of West Dawlish. The clay workings in the Teign valley, from which the raw material is shipped to all parts of the world, are also an important and continually increasing industry; a new area in the parish of Ilsington has lately been opened up, and is now working. Potteries have long been established at Kingsteignton, Heathfield, Bovey Tracey, and Aller; and this trade affords occupation in the aggregate for several hundred workers, who live in the adjacent

towns and villages.

Quarries for building and road-making stone are numerous, chiefly limestone, granite, and diabase; the latter is in great demand for roads, the principal quarries being in the Teign Valley near Trusham station, where a rapidly expanding industry has grown up. Concrete blocks for building purposes are made here, and Teign Village, with 48 houses, is occupied entirely by the employées.

Some tin and copper mining is also carried on, especially at Hennock, and Vitifer, near Widecombe; micaceous iron to a limited extent is found near Lustleigh; these,

however, are not very considerable.

No special diseases have come under notice as the

result of these various occupations.

The northern and woodland parts, as well as the coast line, being attractive in situation and scenery, are residential to some extent; hence lodging houses and hotels are numerous and increasing.

AREA AND POPULATION.—The district has an acreage of 99,142, and a population the census of 1911 of 19,508; it includes 28 parishes, varying in density from those containing the small towns of Bovey, Chudleigh, Kingsteignton, and Moretonhampstead, to the purely rural and thinly inhabited areas of Manaton, Widecombe, and Woodland. At the time of the above census there were 4,501 occupied houses, with an average of 4.2 persons per house. The chief development of late years has taken place in the parishes of Kingsteignton, Bovey Tracey, and Hennock, under the influence of an increasing artizan population. In other localities attractive to residents and summer visitors, such as Moreton, Lustleigh, Haytor and West Dawlish, numerous villas and larger houses have been erected. On the other hand many of the parishes, which have no railway facilities and do not attract visitors, are at a standstill—or even declining.

RATEABLE VALUE of the district for the year ending March 31st, 1913:—Agricultural land, £72,415; buildings, £84,153; giving a total of £156,568.

Balance of loans outstanding at the same date amounted to £19,929 5s. 5d. for water supplies, and

£8,657 10s. for sewerage; in all £28,586 15s. 5d.

Outdoor relief during the whole year 1913 was given to the extent of £2,158 9s. 4d., as compared with £1,924 1s. 9d. in 1912; this is just over 2s. 2d. per head of the population.

I am indebted for these figures, further details of which are given under each parish, to Mr. F. Horner, Clerk to the Rural District Council.

SANITARY ADMINISTRATION is under the direction of Mr. R. A. Rogers, Chief Sanitary Inspector; this officer superintends the erection of new buildings, and has control of water supplies and sewerage systems. Mr. C. N. Rowe is Assistant Sanitary Inspector, and the house to house inspection is being chiefly carried out by him; he also inspects the workshops in the district. To cope with the extra work entailed under the late Housing Act. Mr. J. Nichols, formerly a pupil in Mr. Rogers' office, who has passed the Sanitary Inspector's examination, was added to the staff in the previous year. He is chiefly employed in office work, carrying out disinfection

and drain testing.

VITAL STATISTICS.—The number of deaths registered in the district was 256, but to these must be added II from the Union House, and I each from the Hospital and Isolation Hospital, these institutions being in the Newton Urban District; also 5 which took place in the County Asylum at Exminster, and 10 other transferable deaths occurring in various outside localities. the other hand, 10 fatalities in the Torquay Sanatorium, together with 12 further transferable deaths, are to be deducted. This gives a nett total of 262, of which 125 were in males and 137 in females, resulting in an annual death rate of 13.4 per 1,000. With only one more fatality than in the previous year, the rate remains at the same figure, which is fractionally below the decennial average of 13.9.

The highest mortality was registered in the first quarter of the year, while the second and fourth did not greatly differ; the third, however, showed far the lowest December (28), February and November (27 each), were the most fatal months; on the other hand, only 12 deaths were recorded in August and 14 in July. Seventy-eight deaths were registered in the first quarter, 70 in the second, 41 in the third, and 73 in the fourth, giving rates per 1,000 per annum of 16.0, 14,4, 8.4, and 15.0 respectively. Of the total deaths, 13.0 per cent. were under one year of age, and 43.9 per cent. over 65 years; these figures are hardly equal to those of the preceding year, which worked out at 8.0 and 45.2 respectively. The average age at death was 49.9 years, as compared with

53.9 in 1912 and 49.5 in 1911.

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

LOCAL GOVERNMENT BOARD, TABLE III

BOARD, TABLE III												
CAUSES OF DEATH.	Nett	Total deaths whether of "Residents" or "non-residents" in institutions in the District (b).										
	All ages.	Under 1 year.	1 and under 2 years	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and up- wards.	Total deaths "Residents residents"in in the D		
1	2	3	4	5	6	7	8	9	10	11		
$\begin{array}{c} \textbf{A} \text{ll} & \text{Certified } (c) \\ \textbf{causes} & \text{Uncertified} \end{array}$	253 9	31 3	3		15 	6	26 1	51 3	114	15		
Scarlet Fever Whooping Cough Diphtheria & Croup Influenza	2 10	2			  1	  ï			  5	1 8		
Erysipelas Phthisis (Pulmonary Tuberculosis) Tuberculous Menin-	1 15	1			1	2	7	3	2			
Other Tuberculous Diseases	5			1	2		1	1		1		
Cancer, malignant disease OrganicHeartDisease Bronchitis Pneumonia(all forms)	21 36 19 20	 1 5	 ï	  	  	ï 	2 7  3	8 10 4 4	11 18 13 6	1		
Other diseases of Res- piratory Organs Diarrhœa & Enteritis Nephritis & Bright's	5 4	2 4	1			***		1	1			
Other accidents & di- seases of Pregnan	5				***			2	3			
cy & Parturition Congenital Debility & Malformation, including Pre-					***			***	***	1		
wature Birth Violent Deaths, ex-	14	14								1		
cluding Suicide Suicide Other Defined	11 5	2		2	1	2	3	1 2	2	2		
Diseases Diseases ill-defined or unknown	65 23	3	2	2	9	***	3	15	31 23			
	262	34	4	7	15	n	27	54	115	15		

(a) Poliomyelitis ... 2 | ... | ... | 2 | ... | ... | ... | ... | ... | ...

The infantile mortality, or number of deaths under I year to 1,000 births, has risen from the low water mark of the previous year (57) to 92; it is also a few points above the average for the years 1903—1912, which was 85.

The causes of infantile mortality were:—diarrhæa, 4; whooping cough, 2; erysipelas, 1; diseases of the nervous system, 1; of the respiratory system, 8; of the digestive system, 1; of the skin, 1; premature birth, 8; infantile debility, 5; malformation, 1; and accident, 2. Thus premature birth, respiratory affections, and debility were responsible for more than half the total deaths.

The births of 188 boys and 175 girls were registered in the district, but to these are added 5 boys and 2 girls "transferred" from other localities; this gives a total of 370, with a general birth rate of 19.0 per 1,000, the figures being identical with the previous year, and slightly behind the mean for the previous ten years (20.1). Ninety-one births were registered during the first quarter, 95 in the second, 90 in the third, and 94 in the fourth, giving rates per 1,000 per annum of 18.7, 19.5, 18.5, and 19.3 respectively.

The natural increase of population, or excess of births over deaths, taking into account those transferable, was 108, or 5.5 per 1,000, as compared with 109 in 1912 and 57 in 1911.

The zymotic death rate worked out at .31 per 1,000, which is fractionally less than the low figure of the previous year, and equal to the best yet recorded (.31 in 1010).

With the exception of the infantile mortality, which has increased considerably, the returns closely approximate those of 1912. The general birth and death rates are indeed identical, the zymotic rate nearly so, again influenced by the absence of measles, whooping cough, and diarrhœa to any extent. It is to be noted that there were no fatalities from either typhoid fever, diphtheria, or scarlatina; the year under record has, therefore, been a favourable one.

Under other chief headings, deaths from the tubercular group (21) remain practically the same as in 1912 (23), and just below the decennial average of 23. Cancer has again dropped from 25 to 21, but the death rate from this cause (1.1) is still fractionally in advance of that from phthisis (.77). Diseases of the respiratory system (44) are also identical with the figures of 1912, and several points above the average; deaths from heart disease are practically the same—40, as compared with 38, while fatalities from violence—16 to 14—present little difference. It is, in fact, remarkable that almost all the chief items

should be so nearly reproduced.

Turning in detail to the sub-registration districts, Chudleigh shows the lowest general death rate, though only fractionally; compared with the previous year, this figure has fallen rather more than one point. motic rate of .17, due to a single death from diarrhea, occupies a medium position, about half that for the whole district. The birth rate of 17.1 shows a decline of 5 points, and is considerably below that of the district, while the infantile mortality is somewhat high (127) in contrast to the very small figure of 1012 (15); infant deaths amounted to 17.6 per cent. of the whole, and the senile mortality only reached 30.2, while the average age at death worked out at 50.2 years; the last four items shew some falling off as compared with the previous year. Tubercular disease showed a great decline with 4 deaths (as compared with 10) equal to a rate of .67 per 1,000; cancer remained stationary with 5 fatalities, giving a rate of .84. Mortality from respiratory disease rose from 14 to 10, while that from heart affections (10), and violence (3) remained almost stationary.

Moretonhampstead had a general death rate of 12.8, rather higher than that of 1912, but nearly equal to that of Chudleigh; there were moreover no fatalities from zymotic disease, and the infantile mortality was nil. Deaths over 65 years amounted to 55.9 per cent. of the whole, and the average age at death reached 58.8 years, highest of all the sub-districts. There was only one death from phthisis, equal to a rate of .38 per cent.; cancer dropped from 5 to 3, with a rate of 1.1. All these figures are excellent, and compare favourably with those

of 1912.

Deaths from respiratory disease declined from 4 to 2; on the other hand heart affections advanced from 5 to 11, and violence from 1 to 3. The birth rate (16.5) was

the lowest.

**Newton Rural** shewed a death rate of 13.7, slightly in advance of that for the whole district, but somewhat less than that of the previous year (15.8). On the other hand the zymotic rate of .85, due to two deaths

COMPARATIVE TABLE SUB-REGISTRATION DISTRICTS.

1	at	яgе гр.	Average	38.0 58.0 58.0 58.0 58.0	49.9	51.1	53.9 50.0 50.0 52.5 49.6
	Se		other Di	22825	114	127	110 140 116 116
			Viole	98188	16	12	41800
		.19	Cane	10 10 01 30 00	21	24	322332
CAUSES.	-J	O to	Diseases culatory S	11335	40	88	28 33 18 28 88
	-86	of Ro	Diseases of piratory S	10 28 25 31	4	36	48848
SUBJOINING			Other Tu	ю :	9	9	99-1-0
BJOI	-		Бъсъ	1-0000-1	15	17	15 15 15 15
1000		дзяэ	Zymoticd rate per l	·17	-31	19.	388
FROM	otics		Total Zyn death	4-1:1-	9	13	16 15 15 15 15 15
	Zymotics	.89	Diarrho	61-1 : :-	4	63	3918 :
MORTALITY			,biodqYT	11111	1:	6.1	:c3 :
MOR	Ordinary	Bu 	Whoopi	64	31	60	81188
		ria.	Diphthe	11111	1:	21	:4-100
	Seven	-	Scarlati	11111	1:	0.0	64   64   1
	S	_	Measle		1:	3.5	:4 :2:0
	LOTT	-	q-lisme	11111	1:	1	11111
			Deducted- longing to	10110	62	:	00 : : : :
		era-	Others added.	01-4 :10	121	1 :	2 : : : :
		ranstera ble.	County Asylum.	i	10	80	₩ 10 4 4 C1
	E	Ä	Union House,	4	=======================================	18	18 14 15 15 15 16
THS.	03		Under 1 7	108 119 119 56	95	85	57 105 185 185
DEAT	122	*	Over 65	82828	115	116	121 121 142 100
			Wdetw I & 5 J	40100	=	13	-8-88
	r.	уеа	Under 1	51 55 14	34	33	25 26 30 41 30
	16	te pe	Death-ra 1,00	13.7 12.8 14.6 14.6	13.4	13.9	13.4 11.6 14.9 12.7
	.ddə	u—s	At all age	22822	262	896	261 310 226 289 246
BIRTHS.	19		Birth-ra 1,0	28.7 17.1 16.7 16.5 19.3	19 0	20.1	18.8 20.1 20.2 19.8
BIR		ered,	Registe	1122441	370	388	357 387 390 383 383
	1161	ʻuo	Populati	4,681 5,962 2,516 2,661 3,688	19.508	19,290	19,508 19,508 19,447 19,386 19,326
		SUB-	REGISTRATION DISTRICTS,	Newton Rural Chudleigh Ashburton Rural Moretonhampst'ad Sea-border	TOTALS, 1913	Average for 10 yrs. }	1903-1912. 1912. 1911. 1910. 1909.

from whooping cough, and two from diarrhoea, was comparatively high, and more than twice that of the combined figure. The birth rate of 23.7 was considerably the best, and marked an advance of 4 points. The infant mortality of 108 was again rather large and occupied a medium position; these deaths contributed 18.7 per cent. of the total, while those over 65 years only reached 28.1 per cent., and the average age at death 38.9 years. As in 1912, seven fatalities occurred from phthisis, but three more were due to "others tubercular," representing a rate of 2.1 per 1,000; cancer, however, declined from 9 to 5, with a rate of 1.1. Mortality from respiratory and heart diseases (5 each) was also less marked, while violence increased from 4 to 6.

Ashburton Rural comes fourth, as regards the general death rate, which has advanced from 11.9 to 14.3; there were, however, no fatalities from zymotic disease. The birth rate has declined nearly 5 points, and is within a small fraction of the lowest; the infantile mortality has again increased to some extent (from 75 to 119), while 5 infant deaths were in the proportion of 13.9 per cent. of the total. On the other hand the senile mortality was high-50 per cent., and the average age at death worked out at 48.6 years. Tubercular disease was responsible for 4 fatalities (3 from phthisis), equal to a rate of 1.6 per 1,000, as compared with .79 in the previous year, while 2 deaths from cancer represent a rate of .80also a slight increase. Respiratory diseases remained practically stationary, while the mortality from heart affections declined from 7 to 3. There was only one death from violence.

Sea Border had the highest general death rate, but only fractionally, and this slightly exceeded that for the whole district. The zymotic rate of .27, though all but the highest, was due to a single death from diarrhœa. The birth rate of 19.3 has risen 7 points, and was only second to Newton Rural; this is just above the combined figure, while the infant mortality was again low-56, as compared with 65 in 1912. Four fatalities under I year represented a percentage of 7.4, while the senile mortality worked out at 57.4, and the average age at death was 58 years-all excellent figures. As in the previous year there were only 2 fatalities from tubercular disease, equal to a rate of .54 per 1,000; cancer, with a slight increase—6 as compared with 5 deaths—produced a rate of 1.6. Deaths from respiratory diseases (10) remained at the same figure, while those from heart affections advanced from 4 to 11. There were 3 fatalities from violence.

On page 14 is given the usual parish table, with deaths from the more important diseases, and death rates for each parish, both for the year under review, and the average for the preceding ten years: where small populations are dealt with, and the figures, therefore, liable to considerable fluctuation, the latter is a better guide.

One parish—Coffinswell (as in the previous year)—was without fatality, and in four others—Ideford, North Bovey, Ogwell, and Trusham, only a single death was recorded, giving rates of 4.2, 2.6, 4.2 and 5.7 respectively. Death rates below 10.0 per 1,000 were also obtained at Stoke (6.5), Ipplepen (8.0), Dawlish West (9.0), Bickington (9.1), and Lustleigh (9.2). Ten parishes come within this category, as compared with seven in the previous year. Next in order are Cockington (10.0), Chudleigh (11.0), Denbury (11.6), Woodland (12.7), and Bovey (13.2); all these are below the rate for the whole district.

The highest mortality was shewn by Kingskerswell (26.3), Buckland (25.0), and Manaton (21.0); in the first of these, however, the mean age at death was over 50 years, shewing that the heavy rate was mainly due to deaths among aged persons, and in all three the average for the preceding ten years was very much lower. Buckland has such a small population that the 2 deaths registered produce a large result in rate per 1,000.

Of the five towns containing over 1,000 inhabitants, Chudleigh occupies the best position, followed fairly closely by Bovey Tracey. Bishopsteignton and Moreton are practically the same, while Kingsteignton is somewhat behind. The average rate for the preceding ten years was considerably the lowest in the case of Bovey Tracey and Bishopsteignton, which both shew excellent figures in this respect; while the average age at death in both these towns and at Moreton (exceptionally so in the latter) was unusually high.

ZYMOTIC DISEASE.—To the seven ordinary zymotic diseases 6 deaths were assigned, as compared with 7 in 1912, and 16 in 1911, viz., whooping cough, 2; and diarrhœa, 4. This gives an annual rate of .31 per 1,000, and is equal to the lowest yet recorded (.31 in 1910).

# Death Rates, &c., in each Parish.

ath	Average for yrs, 1903-1912,	47210744624076841144626688788458 7.000000000000000000000000000000000000	13.9
Death Rates.	.8191	**************************************	13 4
əż	A verage Ag. Death.	620 520 520 520 520 520 520 520 5	49-9/13
1000	Total death	-452-432 : 66-1-13-66 : 42-1-22-1-23	262
	Deducted-not be longing to district		55
Q .	Others Added.		12
ansfera	County Asylum		5
Tra	Union House	-	=
-	Violence.		16
	Infantile Debility.		10
	Apoplexy.	L : [4 : : : : : : : : : : : : : : : : :	17
	Cancer.	- 101-1 14   1- 1   1000   10   1- 1  - 1	21
1811	Other Tubercu Diseases.		9
aole	Phthisis.	-	15
	.szaenhaI		10
	Diarrhoea.		4
oi.	Typhoid,		:
otic	Measles.		:
Zymotics	W hooping.		67
ary	Diphtheria.		:
Ordinary	Scarlatina.		::
0	Small Pox.		1
1911.	Астеаде.	1486 1449 1449 1449 1567 2200 1493 6128 1451 1152 2004 3870 3870 3870 3870 1440 7843 2887 1797 3975 6422 7910 625 1678 1634	99142
Census 1911.	Population.	2809 2809 2809 2909 2006 2909 2006 2006 2006 2006 20	19508
	PARISHES.	Abootskerswell Bishopsteignton Bovey Tracey Broadhempston Buckland Chudleigh Cockington Coffisw'll & D'cm'be Combe & Haccombe Dawlish (West) Dawlish (West) Dawlish is Forbrian Hennock Ideford Ilsington Ipplepen Kingsteignton Lustleigh Manaton Moretonhampstead North Bovey Ogwell Stoke Trusham Woodland	Total

Cases of notifiable disease were 147 in number, as against 129 in the previous year. These included 84 scarlatina, of which 6 were in Newton Rural, 71 in Chudleigh, 2 in Ashburton, and 5 in Sea Border; 10 diphtheria, 3 of which were credited to Newton Rural, 1 to Moreton (a visitor), and 6 to Sea Border; 6 erysipelas (4 Newton Rural, and 1 each Moreton and Sea Border), and 2 poliomyelitis (1 each Chudleigh and Ashburton). Phthisis produced 40 notifications—Newton Rural, 10; Chudleigh, 13; Ashburton, 4; Moreton, 9; and Sea Border, 4. Five cases of other tubercular diseases were reported—2 in Newton Rural and Sea Border, and 1 in Chudleigh.

The following table shews the monthly incidence: -

		-										-	-
DISEASE	January	February	March	April	May	June .	July	August	September	October	November	December	Total
Small Pox													
	177	2		4	2	4	8		11	27	17	8	84
Scarlatina	1	2	***	4	-		0	***	11		1	1	10
Diphtheria	4				444			4	220		1	1	10
Typhoid Fever			1	0.17						***		***	
Puerperal Fev'r												411	***
Erysipelas	0			1		1		1			2		6
Poliomyelitis			1				2			1			2
Tollowy Circle	4	9	1	3	5	4	4	1	2	4	3	5	45
Tuberculosis	4	9	. 1	0	9		4	1	-	1	0		
		-			-	-		-	10	01	00	14	147
Total	111	111	1	7	17	9	14	6	13	31	23	14	147

MEASLES.—The district was again almost entirely free from this disease throughout the year, though a number of cases of the German variety were reported at Kingskerswell in the spring months; there were no fatalities.

WHOOPING COUGH was prevalent in the early spring months at Teigngrace, Lustleigh and Kingsteignton, with two fatalities in the latter town; the schools,

however, were not closed.

TYPHOID FEVER.—For the second year in succession the district has been entirely free from this disease; the last case was reported in September, 1911. Such complete immunity cannot always be expected, but nevertheless the result of improved sanitary conditions is highly satisfactory.

SCARLATINA was again responsible for a large proportion of notifications—84—as compared with 75 in 1912, and 31 in 1911. Of these 71 cases were reported in the adjoining parishes of Bovey Tracey and Hennock, where the disease was more or less prevalent during the

latter part of the year. The earliest attacks occurred at Bovey-one in February, an adult, and three in one family in April. Then followed an interval of two months, but five cases occurred towards the end of June, and a similar number in July, scattered over the whole month; nearly all these attended the Council School. The month of August was free, but about the middle of September a further outbreak occurred, which continued throughout the next two months, finally affecting the National Schools to a nearly equal extent. On several occasions I examined all the children at these schools, and once or twice special classes. Except in the case of the National infants, where a child was discovered to be peeling by the teacher, the disease was not, however, confined to any one room. I also paid many visits to the schools, and to absentees, but with little result. particular part of the town was affected, but in several instances there was evidence of inter-association.

Milk supplies were various, and did not at any time come under suspicion.

All country children were excluded at an early period of the second outbreak in September, and eventually the schools were closed on October 16th for a month. Both were thoroughly disinfected in the summer as well as the Christmas holidays; the floors and benches scrubbed monthly as a matter of routine. There were in all 50 cases during the year; 15 were attending the National (boys 2, girls 3, infants 10), and 19 the Council School, while 16 were either above or below the school age, including 4 adults. All but two were removed to hospital, and there were no fatalities.

Five instances of multiple attacks in the same house occurred; in three cases three members of a family were affected, in the others two. Four were simultaneous, while in the remainder more or less interval took place.

A few further cases were reported early in the present year—chiefly in an isolated house at some distance from the town, and not connected with any Bovey school,

but the outbreak is now practically over.

At the end of October the neighbouring village of Hennock—about two miles distant, was affected, five attacks being reported between the 28th and 31st, and eight more in the first week of November, nearly all attending school; an examination of the children did not, however, reveal any suspicious cases, but I thought it advisable to close the school on November 3rd, seeing that many of

the children came from the country, and the chief centre of population, Teign Village, was at that time only responsible for one case. After this there was a considerable improvement, although scattered attacks, chiefly in Hennock itself, occurred; in fact 16 were reported in that village, 3 in Teign Village, and 2 in isolated houses. The schools continued closed till after the Christmas holidays: during this time the building was thoroughly disinfected, and the walls redistempered.

Milk supplies were distributed, but several of the cases from a group of cottages in the centre of the village were closely associated; nearly every child in this court was attacked. Of the above 15 were in school children, and 6 were either below or above the school age, including 2 adults; four instances of multiple attacks in the same house, all at intervals, occurred, five being affected in one family, and four in another. All but one—a very young child alone with the parents—were removed to hospital and there were no fatalities.

Except that about the middle of January three children in one family were attacked at Teign Village, no further outbreak has occurred.

Kingsteignton was responsible for five cases; three of these were reported in children attending the British School, in the latter part of October, and two at the end of December. Of the latter, one was in a visitor living in a distant and isolated cottage, and the other occurred in a house previously affected. Two were treated in hospital, the others being sufficiently isolated at home.

Three attacks were reported at West Dawlish, one in an outlying cottage early in April, and two more at West Woods, about a month later; these were all school children, but there was no apparent connection between the first which attended Mamhead School, and the others who went to Cofton. All were removed to the Exeter Sanatorium.

Two cases occurred at Kingskerswell in July—both in adults, without any inter-association, as far as could be ascertained; two were reported at Broadhempston, one in January, and one in November; one of these patients was an adult.

The remaining attack was in a teacher at Ogwell School; since the house was part of the school buildings, the school was closed for a fortnight. The origin of disease was obscure.

Of the above 84 notifications, 13 were between 1 and 5 years, 59 between 5 and 15 years, 8 between 15 and 25 years, 3 between 25 and 45 years, and 1 over the latter age. Seventy-five were removed to hospital (out of the 82 for whom the hospital is available), over 91 per cent.—a large proportion, especially in a rural district. In fact, in practically all the cases in which removal was desirable, not only were no objections made, but parents fully recognised the necessity of isolation, and willingly sent their children away.

The type of disease was, as usual, generally mild, although a few of the attacks were severe; there were, however, no fatalities.

DIPHTHERIA produced 10 notifications as compared with a similar number in 1912 and 17 in 1911. Of these four occurred in January at Kingskerswell, where there had been a small outbreak in the previous October. Three were members of the same family, who were almost simultaneously effected, while the other was in a child attending the same school from whom I took a swab on suspicion; this boy was stated to have had a sore throat ten days before. During the late autumn months a number of sore throats were reported in this village, chiefly among adults, but except in two instances bacteriological examination was negative. Both these patients were also adults, but in one case—that of a domestic servant-a boy in the house was found to be infected, although clinically healthy. Except the last, who was isolated at home till free from the infection, all were removed to hospital. Kingsteignton was responsible for two attacks towards the end of August-children in the same house; while isolated cases occurred at Ipplepen and Manaton in the same month; the latter was in a visitor; both were adults.

Of the above, 4 were between the ages of 1 and 5 years, 3 between 5 and 15 years, and 3 between 15 and 25 years. Nine were treated in hospital; the other was in a parish outside the combination. There were no fatalities.

Antitoxin is provided free of charge, and is kept at my Office, Town Hall, Courtenay Street, Newton Abbot; also at the Cottage Hospital at Moreton. Two swabs are obtained (taken with a few days' interval) free from infection before the premises are disinfected, and after that a month's further exclusion from school is exacted in the case of children. Swabs are also taken from

healthy children in the house to discover any possible carriers of disease; and such carriers, if without clinical symptoms, are kept at home till ascertained free from infection. I sent up 42 swabs during the year.

PUERPERAL FEVER.—No cases were reported

in 1913.

POLIOMYELITIS .- Two attacks occurred during the month of July; both were in isolated houses widely separated. The first was notified early in the month in a boy of 6 years, who attended the Bovey National Infant School, but lived about two miles from the town. There were four other children in the house, but neither at home or at the school were there any other suspicious cases of illness, as far as I could discover; this patient was removed to the Newton Hospital, but the illness was of a severe type, and ended fatally, after a course of about ten days.

The other attack occurred towards the end of the month at a cottage near Haytor in a girl of 13; she had been ill many weeks and ailing some time before acute symptoms set in; here again I could discover no likely source of infection, neither were there any other suspicious cases in the house or neighbourhood. This illness

also had a fatal termination.

ERYSIPELAS.—Six notifications—one under 1 year, and one between I and 5 years; the first was fatal.

PHTHISIS was responsible for 15 deaths, as compared with 21 in the previous year, of which one was between 5 and 15 years, 2 between 15 and 25 years, 7 between 25 and 45 years, 3 between 45 and 65 years, and 2 over the latter age. This gives a rate of .77 per 1,000; the decennial average works out at .88. Kingsteignton was credited with five fatalities; Bovey Tracey and Woodland with 2 each; while Abbotskerswell, Cockington, Hennock, Ilsington, Moreton, and Ogwell contributed single deaths.

Forty cases were notified during the year, whose local distribution was as follows: Abbotskerswell, 1; Bishopsteignton, 1; Bovey Tracey, 8; Buckland, 1; Chudleigh, 1; Cockington, 1; Denbury, 2; Ipplepen. 1; Hennock 2; Kingskerswell, 2; Kingsteignton, 5; Lustleigh, 4; Manaton, 1; Moreton, 4; Ogwell. 1; Trusham, 2; Woodland, 2; and Widecombe, 1. Of these 7 were in visitors (Bovey, 2; Chudleigh, 1; Lustleigh, 1; Manaton, 1; Moreton. 2); three of whom died, whilst the others left

the district before the end of the year.

Of 33 belonging to the district, eleven have died since, while seven have had Sanatorium treatment. Severe illness was stated to be the starting point of disease in twelve instances (influenza 6, pleurisy 2, confinement 2, diphtheria 1, and whooping cough 1). Thirteen had bad family histories in this respect, and in three cases two members of the same family were notified.

Occupations were various, but II were more or less

exposed to weather.

In no case did I find any overcrowding; 20 had separate bedrooms, and in the remainder—nearly all married persons, there was only one other occupant. In one case the house was damp; the owner is under notice to remedy this.

Two patients were between 1 and 5 years; 5 between 5 and 15 years; 7 between 15 and 25 years; 15 between 25 and 45 years; 9 between 45 and 65 years; and 2 over

the latter age.

Other forms of tuberculosis were responsible for five notifications; three were hip joint disease—two in children—and all the result of accidents; in a fourth (also a child) the peritoneum and intestines were the seat of disease, and in the other the skin was affected. Two of these have since died, and a third has left the district. Two were between 5 and 15 years; 2 between 15 and 25 years; and one just over 25.

Spitting flasks and disinfectants are supplied by the authority, and a card of simple instructions provided. After death or removal (whether to a sanatorium or permanently) disinfection is carried out by the Sanitary Inspector and the bedding taken to hospital for steam dis-

infection, if within the hospital combination.

I visited all the above cases personally (except two-visitors who shortly left the district), and made enquiries as to the health of other members of the family. Visits are also paid by the County Tuberculosis Officer, who examines other members of the family; one case was notified by him. The administration is generally in the hands of the County Council, who have purchased an estate at Hawkmoor, Bovey Tracey; this is not yet in full working order, but a number of patients are now accommodated there. Many of the children I found had also been examined by the School Medical Officer. I also occasionally visit cases previously notified, and as far as possible keep myself informed as to their movements and general progress.

CANCER produced 21 deaths, as compared with 25 in the previous year, and a decennial average of 24; this gives a rate of 1.1 per 1,000. Eleven, or rather more than half, were over 65 years of age. The greatest mortality took place in the Sea Border district, with 6 fatalities, and a rate of 1.6 per 1,000. Of the various parishes, Chudleigh (4), Kingskerswell and Moreton (3 each), Bishopsteignton and Kingsteignton (2 each), shewed the largest number of deaths.

DIARRHŒA was slightly more fatal than in 1912, but though the summer months were accompanied by a long drought, temperatures were not high as a rule, and only four deaths were recorded, one of which was in the early spring; moreover all were in different parishes.

OPHTHALMIA NEONATORUM was made notifiable in the Autumn; no cases have as yet been reported. Arrangements are made by the County Council for dealing with this disease through the midwives.

ISOLATION HOSPITAL COMBINATION.—
Fourteen rural parishes, with a population of 12,793, within a general radius of six miles from Newton Abbot, are in combination with that town with regard to the Hospital. The typhoid wards give accommodation for four adults on the basis of rather more than 2,000 cubic feet each, while the diphtheria block, divided into four wards, contains six beds (2,400 cubic feet apiece) besides cots. The iron building is used exclusively for scarlatina patients, and contains eight beds on a rather less basis.

As the result of an enquiry held by the County Council during the summer of 1912, the following eight parishes are to be included in the combination, viz: Bickington, Broadhempston, Ideford, Ilsington, Lustleigh, Stoke, Trusham, and Woodland; these are all within comparatively easy reach. This order will take effect on April 1st of the present year.

From the parish of Dawlish West patients are sent to the Exeter Sanatorium (about eight miles distant from the main part of the parish) under an arrangement made with the City Authorities. This leaves five as yet unprovided for—Buckland, Manaton, Moreton, North Bovey and Widecombe; of these all but Moreton are purely rural and thinly populated, and their distance from Newton is considerable. Eighty-one patients were removed to Newton Hospital during the year (72 scarlatina and 9 diphtheria), and 3 (scarlatina) to Exeter from West Dawlish. Only three cases occurred in parishes outside the combination—2 scarlatina at Broadhempston, and I diphtheria at Manaton.

All notifications are visited by myself immediately on receipt; when feasible patients are removed to hospital. In other cases, I endeavour to get the house cleared of healthy children, who are either taken by relatives or boarded out in houses only tenanted by adults; the expense is defrayed by the Authority, if the Hospital is not available. Where this is not practicable, isolation has to be effected as well as circumstances will allow. A nurse is provided if necessary; no expense under these headings was incurred during the past year.

Rooms are disinfected with the formalin lamp, or sprayed, and there is a steam apparatus at the Hospital for dealing with clothes and bedding, this latter being available only for parishes within the combination: 90 lots of clothing, etc., comprising in all 861 articles, were taken to the Hospital during the year. Their removal is done by contract, in a cart kept for the purpose: a list is made in each instance by the Sanitary Inspector pre-

viously.

The County Council undertakes the examination of throat swabs for diphtheria; and also of sputa for tubercle, and of blood for Vidal's re-action. Specimens may be sent up directly by medical men to Dr. G. Adkins, County Medical Officer of Health, 14, Bedford Circus, Exeter. Proper apparatus is provided by the County Council, and no charge is made.

Disinfectants are supplied gratis, and can be obtained

at the following places: -

Abbotskerswell.—Mr. R. Chudleigh.

Bishopsteignton.—Mr. R. Berry.

Bovey Tracey. - Mr. E. Steer, Abbey Road.

Broadhempston.-Mr. W. Atwill.

Brookfield (Bovey). -- Mr. E. Rabbage.

Chudleigh.-Mr. F. Hunt, Clifford Street.

Chudleigh Knighton.--Mr. E. Cornish.

Cockington-Mr W. Dyer, 102, Winsor Rd., Torquay

Coombe.-Mr. A. C. Penwill.

Dawlish West.-Mr. W. Gilpin, Westwoods.

Denbury.—Mr. C. Lark. Ideford.—Mr. W. Bowden. Ipplepen.—Mr. W. Maddicott.
Kingskerswell.—Mr. E. S. Ford, Fore Street.
Kingsteignton.—Mr. T. Lang and Mr. T. J. Partridge, Gestridge.
Lustleigh.—Mr. E. Arnold.
Moretonhampstead.—Mr. J. Rice.
Ogwell.—Mr. W. Webber.
Stoke.—Mr. Jas. Knott.
Teign Village.—Mr. G. Germon.
Widecombe.—Mr. A. Nosworthy.

COTTAGE HOSPITALS for treatment of general diseases exist at Moreton (8 beds), and Bovey Tracey (6 beds); 98 persons, of whom half were in-patients, were treated at Moreton, and 41 at Bovey during the year. Besides these, patients are accommodated at the Newton Abbot and Teignmouth Hospitals, in the immediate vicinity. Other institutions receiving occasional patients are the Devon and Exeter (Exeter), South Devon (Plymouth), and Torbay (Torquay) Hospitals.

DAIRIES, COWSHEDS, & MILKSHOPS.—There are now on the register 182 dairymen and cowkeepers, rather less than in the previous year (189), controlling about 1,700 head of cattle. The majority of these are small: 40 milking from 1 to 5 cows; 64 from 5 to 10; 49 from 10 to 20; 19 from 20 to 30; 2 from 30 to 40; and 2 over 40. The remaining 6 are dairymen only.

The largest are those which send milk to Torquay, Newton Abbot, and Teignmouth. The model regulations of the Cowsheds, Dairies and Milkshops Order are in force, and copies printed on stout cards are supplied to

all, to be hung up in a conspicuous place.

Water supplies are various; 91—exactly one half, are connected with the public mains in the different towns and villages; 21 have spring water piped in by gravitation, while 70 depend on wells. I have visited all of them during the year, while those which send milk to Torquay are also inspected by the authorities of that town.

Six shippens were paved and drained during the year; a few still remain to be dealt with.

Limewashing is, on the whole, very regularly carried out; in a few instances notices to do this work were served.

There are no cowsheds in which animals are kept always indoors, but on most farms they are brought in at night only for 3 or 4 months in the year; in some sheltered localities, however, the cows sleep out all the year round.

I have no knowledge of the existence of any tubercular cattle, with the exception of five, which were reported to the police and destroyed under the Order. There are at present no means of ascertaining this.

OFFENSIVE TRADES.—Urban powers are in force over the whole District in respect to these (Public Health Act, 1875, Sections 112-114), and no offensive trade may be established without the consent of the Authority. The Local Government model bye-laws applying to such trades have also been adopted. There are only two businesses in the district which come under this heading, viz., artificial manure works at Aller, and a tripe boiler in the parish of Kingskerswell. The former is fairly isolated, and the latter completely so. I have had no complaints concerning them during the year, and found them well kept and free from nuisance on my visits.

SLAUGHTERHOUSES.—There are 34 of these in the district, of which 10 are in the parishes of Chudleigh and Kingskerswell. They are visited from time to time by the Sanitary Inspectors and myself, and are mostly well kept, though several are situated, in my opinion, too close to dwellings, and at certain times will unavoidably cause some nuisance. In the case of the particular building at Cockington—mentioned in my last year's report as a source of complaint—a scheme of drainage has been carried out.

No carcases have been condemned during the year for tuberculosis or any other reason; there is no special meat inspector.

The model regulations under the Bye-laws are in

force.

BAKEHOUSES.—There are 38 in the district, which are also inspected by the Sanitary Inspector and myself; these have generally been found clean and well

kept.

HOUSING OF WORKING CLASSES.—Building operations, influenced to a large extent by the growing cost of labour and materials, show some falling off; while 41 new houses were built, including 22 workmen's cottages, plans for 36 only were passed. Last year 93 new

dwellings (71 cottages) were built, and plans for 52 passed. As in former years, the greatest activity was shown at Kingsteignton (9 built and 1 passed), while Bishopsteignton (6 built and 10 passed), and Kingskers-

well (4 built) come next.

The HOUSE TO HOUSE INSPECTION of Chudleigh, Hennock and Trusham was completed in 1912; practically all the work has been carried out in the latter two parishes, but a certain number of houses still remain to be dealt with at Chudleigh, and until some new cottages with three bedrooms are provided, overcrowding in some cases is inevitable. Many improvements have, however, been effected as far as is possible in old property, much of which is near the border line of fitness for habitation.

In 1913 the inspection was continued at Moreton and North Bovey by Mr. Rowe; the number of houses visited was somewhat less, partly because the time of the Inspector has been largely taken up in disinfecting and partly because some arrears of work required in the previous year have yet to be made good, and notices fol-

lowed up.

Moreton, like Chudleigh, is a country town, which contains a considerable amount of old property, but there is a good and ample public water supply, and as the result of previous inspections, drainage work and the flushing of closets has been already attended to; 300 out of 312—over 99 per cent.—were found properly flushed. Paving of yards and washhouses, together with ventilation and other minor details, demanded the greatest attention. In the town itself the dwellings were generally found dry and in good order, but some of the country cottages want attention in these respects. A number of houses in this locality are built with granite, and this stone, even where walls are thick, appears to be pervious to wet to some extent; this is especially noticable on the weather side-that is, facing the rain bearing south-westerly winds. The whole parish also is at a high altitude, and many of the cottages are, therefore, in an exposed position; the only real remedy is to face the outside with a coating of cement—an expensive process.

North Bovey is a small village, all in the hands of one owner, and the cottages it contains have always been well looked after and kept in good repair. Much work has been done here of late years, without notice from the authority, and, therefore, but little requires at-

tention.

Early in the present year the Council appointed a strong sub-committee to discuss the housing question, with a view to providing cottages where necessary.

As a preliminary all Parish Councils were asked to express their opinion on the subject, and notices were posted in every parish, inviting applicants for houses to come forward. To this latter, however, only a few responded; but it was finally decided that the chief want lay at Bovey Tracey, Chudleigh, and Kingskerswell. At Chudleigh it is proposed to build 12, and at Kingskerswell 20; suitable sites have been found, and negotiations for their purchase are proceeding. At Bovey matters have not yet progressed so far, owing to the difficulty of obtaining the land necessary. Cottages are also scarce at Moreton; here, however, the want is being met by Viscount Hambledon, and six will shortly be erected as a commencement.

The provision by Councils of suitable dwellings will no doubt, greatly relieve the present position, and money can be borrowed on better terms by public bodies; even so, the difficulty will still remain that the rents of these new buildings must considerably exceed that paid for the cottages they replace, and the increasing price of labour and material does not hold out any hope of future reductions—at all events till the loans required are paid off. The accommodation and standard of comfort will be greatly increased, but unless the public funds are to contribute a portion, extra payment must be made for this by the tenant.

Number of houses inspected	434
Number of houses so dangerous as to be unfit for	
occupation	Nil.
Representations made to the Authority with a view	
to obtain closing orders	Nil.
Number of closing orders made	Nil.
Number of dwelling houses in which defects were	
remedied without closing orders	217
General character of defects were in respect to	pav-
ing of yards and washhouses, dampness of walls,	ven-
tilation and other minor matters.	

Eleven cases of overcrowding were met with, four of which have since been abated.

of the Local Government Board are in force throughout the district: the modifications for Rural Districts have also been adopted. All new houses are inspected by Mr. Rogers in course of construction; drains are tested, and occupation is dependent on his certificate of fitness.

SCAVENGING.—There is a different arrangement in nearly every village, but house refuse is removed at:

Bovey Tracey, as required.
Chudleigh, twice a week.
Moreton, three times a week.

A full time man is employed in each case.

Kingsteignton, once a week, by contract.

I had complaints in the summer as to this matter at Kingskerswell, where the streets are cleaned by the road men once a week only; this is a large village, and, in my opinion, more frequent attention is required.

MIDWIVES' ACT is now wholly administered by the County Council, who have appointed a special supervising nurse for the whole county, independently of the Medical Officer of Health.

NOTIFICATION OF BIRTHS ACT has not been adopted. I do not think the infantile mortality is sufficiently high to warrant the expense of appointing Health Visitors to look after the rearing of young children and instruct the mothers, which would be necessarily entailed.

LEAD.—Many of the water supplies, both public and private, are derived from granite uplands. These are always soft, and often peaty, especially after heavy rains; nevertheless they do not seem to have any marked action on lead in this neighbourhood. Waters derived from the Torquay gathering ground at Hennock contain silica (from the granite), which is said to form a protective coat. I have heard of no instances of lead poisoning during the year; at the same time long lengths of lead service pipes are discouraged where upland surface waters are involved.

SCHOOL SANITATION.—The school at Broadhempston has been practically rebuilt during the year, the lighting, ventilation, and cloak room accommodation being greatly improved.

At Denbury the public water supply has been taken on to the school premises; with these exceptions, no important work has been carried out during the year.

There are 39 schools in the district, and their condition generally is very fair, both as regards water supplies and sanitation. Of these 24 have the public water supplies of the various towns and villages on the premises, while in the case of five spring water is brought in by gravitation; four depend on wells. Two others, Bickington and Broadhempston, collect rain water from the roofs; in the latter case there is also a well—within a short distance.

The two schools in the parish of Ilsington still await the public scheme, though in both instances the closets are adequately flushed from streams; one has no drinking water, while the shallow well at Blackpool is

unsatisfactory in dry seasons.

Trusham and Widecombe schools are also without water; this is brought in a jug when required for drinking purposes.

North Boyev is dependent on the public well on the

green, which adjoins the school.

With regard to closet arrangements, in 26 instances the water carriage system—either some form of trough, or separate pans—obtains. Two are flushed by pumping from a well—Manaton and Coombe; the remainder by the public supplies, or as at Ilsington, Stoke, and Blackpool, by streams.

In several instances urinals are not flushed.

Twelve are on the dry system—pail privies; I have had no complaints of these during the year, and have found them generally well looked after on my visits.

The accommodation is, generally speaking, sufficient for present requirements; at Hennock a temporary wooden building has been erected by the County Council to provide for the children from the new Teign village.

Lighting and ventilation are fair as a rule, but more hopper venilators should be provided in most of the class rooms, and in several cases, more windows might with advantage be made to open.

Floors are scrubbed monthly in the great majority, but a few are not up to the mark in this respect. Daily

sweeping is carried out in all cases.

Medical inspection of children is arranged by, and under the control of Dr. G. Adkins, County and School Medical Officer. The actual work is carried out by one of three medical men appointed by the County Council for this purpose, but the report is not yet available. In questions connected with school closure, or excluding

groups of children, I have acted in co-operation with the County M.O.H., and I send notifications of exclusion of infected children and contacts both to him and the head teachers.

RIVER POLLUTION.—The chief watercourses in the district are the river Teign and its tributaries, on or near the banks of which lie several of the more important centres of population. Bovey Tracey and Moretonhampstead, the largest of these, have modern outfall works, and generally speaking, the sewage of the others is efficiently dealt with by surface irrigation of meadows. Further extension of the Abbotskerswell sewers, now being carried out, will remove all drainage from the brook which runs through that village.

The villages of Stoke and Coombe discharge what little drainage there is into the streams on which these villages lie; but I have had no complaints of nuisance from either during the year, and both—especially the former—are within short distance of tidal waters.

Kingskerswell is in much the same position, but here the sewerage runs through a meadow below the village

before entering the stream.

Chudleigh Knighton has a short sewer which discharges near the Teign, but the volume of water in this river is comparatively large, the amount of sewage small, and the outfall far removed from any dwellings; only a few closets are connected with this. Owing to the position, at the bottom of a small goyal with steep sides, any different arrangement could only be effected at great expense for a small village to incur.

A few slop water drains discharge into a small

brook at Trusham.

I have had no complaints during the year concerning any of the outfall works in the district; neither have there been any cases of disease attributable to them.

FOODS and DRUGS ACT is administered by the police; with the present sanitary staff it would be impossible to attempt it.

The following samples were taken during the year in the Newton Rural and Urban Districts—62 in all.

III UIC +	ACM FOIL TERITOR	T CELL	u	TOUT TABLETON	 	
Arrowro	ot		2	Margarine	 	3
Baking	Powder		I	Milk	 	16
Bread			2	Oatmeal	 	I
Butter			5	Pepper	 	2
Cider			3	Rice	 	2
Chicory			I	Sugar	 	3

Coffee	 	2	Sweets	 	1
Cream	 	I	Tapioca	 	I
Ginger	 	Í	Tea	 	2
Honey	 	I	Turmeric	 	I
Jam	 	I	Vinegar	 	1
Lard	 	5	Whiskey	 	4

These were all found genuine, and no prosecutions therefore, were undertaken.

I have no reason to believe that milk and other foodstuffs supplied in the district are otherwise than wholesome.

# ADOPTIVE ACTS AND REGULATIONS IN FORCE IN THE DISTRICT.

Public Health Amendment Act, 1890.

Infectious Diseases Prevention Act, 1890.

Public Health Act, 1907.

Model Regulations under Dairies, etc., Order, 1899.

Model Regulations for Slaughterhouses.

Model Regulations as to Offensive Trades.

Model Building Bye-Laws.

#### SANITARY CONDITIONS AND PROCEDURE.

Abbotskerswell population 474, slightly increasing; acreage, 1,486.

Rateable value, £5,187.

Balance of loan outstanding on the water supply, £507.

Outdoor relief in 1913, £75 17s. 6d.

Shales and limestone form the chief geological features of the locality.

The public water supply is that of Torquay and Newton, and is derived from the Wolborough Hill reservoir at Newton Abbot, but there is also a small tank at Aller, which serves an isolated group of houses in this corner of the parish: all these have now taken in the water. A few wells still remain in use in the village.

There is one main sewer, extending from Abbotsford Farm to the outfall, with a short branch to Priory Hill. The outfall works, which comprise septic tanks, with a filter and a small area of land irrigation, are nearly half a mile below any houses. Owing to the nuisance arising from pollution of the brook at various points along the higher part of the village, the Council decided to extend the sewer up to the Cider Factory. A tender has been accepted and the work will shortly be in hand; the effluent from the factory will receive special treatment before discharging into the sewer. All dwellings on the way will be required to connect, and this will complete the sewerage of the main part of the village.

Both water closets and pail privies are common: many of the former are flushed, and others will now be dealt with.

Two new houses were built and the drainage in connection with one put in order.

The parish remained free from infectious disease. Seven deaths (phthisis, cancer, and apoplexy, I each), give a rate of 14.8 per 1,000, which is practically identical with the mean rate for the previous ten years—14.7. The average age at death reached the high figure of 62 years.

**Bickington** population 219, increasing slightly; acreage, 1,403.

Rateable value, £2,257.

Outdoor relief in 1913, £23 11s.

In dry summers, including that of 1913, water is somewhat scarce, especially in the higher part of the village, and is almost entirely dependent on wells in the shale, which, together with limestone, form the chief geological features; there is also an outcrop of diabase, used for road making purposes.

There are no sewers, and closets are, as a rule, on the

dry system.

The parish was free from infectious disease.

Only two deaths were registered, with an average age at death of 56.5 years; this resulted in a general death rate of 9.1 per 1,000—little more than half the decennial mean of 17.9.

Bishopsteignton population 1,108, increasing; acreage, 4449.

Rateable value, £12,052.

Balance of loan outstanding on the water supply, £592 3s. 4d.

Outdoor relief in 1913, £47 6s.

The village lies in a sheltered and attractive position on the southern slope of the Haldon Hills, by which it is protected from the north and east; the main part of the water supply is derived from two deep springs under the green sand. There are two covered reservoirs containing about 120,000 gallons; and a third spring with small reservoir, which is inconsiderable. This is supplemented when necessary from the Teignmouth main, which runs through the village, and during the past year 1,276,000 gallons were taken from this source, as compared with 500,000 gallons in 1912 (with its large rainfall). Practically all houses in the village have the public supply.

SEWERAGE.—Water closets are general and most of them are flushed; the sewers are all piped, except a portion above the Church, where there is, however, a steep fall. There is one main outfall, which irrigates a meadow below the Vicarage; a few houses drain into West.

Town Meadow.

NEW WORK.—The sewer and water main have been extended in connection with the Long Marston building estate, which continues to develop; six new houses were built, and plans for ten others passed.

The drainage in connection with three dwellings has

been renewed and closets flushed.

LUTON, a village of about 20 houses, in an outlying part of the parish, has a good and abundant water supply piped down from a Haldon spring; there is a reservoir containing about 5,000 gallons at a high level. There was no shortage during me year, but the collecting pipes had to be renewed owing to obstructions.

Closets are on the dry system, and there are no

sewers.

The hamlet of ASHWELL is supplied with water from an excellent spring.

The parish was free from infectious disease.

Sixteen deaths were registered (influenza, 2; cancer, 2; and violence, 1); this gives a rate of 14.4 per 1,000. The mean rate for the years 1903-12 was, however, somewhat lower—12.6; and the average age at death reached 58.7 years.

**Bovey Tracey** population 2,809, increasing; acreage, 7,567.

Rateable value, £14,305.

Balance of loans outstanding: water supply, £5,307 15s.; sewerage, £5,865 16s. 8d.; total, £11,173 11s. 8d.

Outdoor relief in 1913, £296 os. 5d.

The older portion of the town lies on the slope of one of the spurs of the moor, with a south-westerly aspect. Of recent years, however, considerable expansion has taken place, chiefly in the Teign Valley, where the suburb of Brimley has grown up. At present a site near the station is being developed, but building operations are cramped owing to the difficulty of obtaining land. Cottages are needed, and the Council have decided to build as soon as a suitable field can be negotiated.

The geological formation varies from granite on the higher elevations to shales, and eventually the clays and

alluvium of the old lake bed.

The rainfall for the year amounted to 43.34 inches

(January 8.61, March 6.53).

Water supply is derived from granitic springs at Yarner, and is of excellent quality; there is a storage reservoir on Trendlebeer Down—about 3 miles distant—

of 3,000,000 gallons' capacity. The home reservoir, above the church, nominally contains 250,000 gallons, but can only be partially filled. The demand, especially in the summer months, is now outgrowing the supply, and the Council are, therefore, endeavouring to augment it. After some negotiation with Sir H. Eve, K.C., permission has been obtained to take water from Yarner Down, and five adits have been driven in to the hill of various lengths. Three of these yield considerable streams-about 90,000 gallons a day at the end of the year-which appear to be little affected by surface water or rainfall, and the County Analyst reports favourably on all of them. Mr. C. E. Chapman, Engineer to the Torquay Corporation, is preparing plans to connect these with the mains, but the scheme has hardly as yet gone beyond the initial stage; there is, however, no doubt that more water is much wanted.

The sewerage system is wholly modern, with septic tanks and intermittent land irrigation, and continues to work efficiently.

Water closets are general, and practically all are

flushed.

House refuse is removed as required.

NEW WORK.—Three new houses were built and plans for one other passed.

The drainage in connection with 12 houses was put

in order, and 7 closets flushed,

Attention is being paid to the paving of yards and washhouses, and several common yards have been concreted throughout, while others are now in hand.

BROOKFIELD AND WREYLAND.—These villages, though in the parish of Bovey, are close to Lustleigh Station, and in every sense more closely connected with that parish. They are supplied with water by a main from the Trendlebeer reservoir. The sewers form part of the Lustleigh system; there are two branches, one of which can be flushed from the river.

Water closets are general and are well flushed.

At HEATHFIELD, also in this parish, the long row of cottages (32 in number) is supplied from the Torquay mains. Closets are all flushed, and there is a private sewer, with outfall, in an adjacent meadow.

Infectious disease was represented by an outbreak of scarlatina in the summer and autumn months of the year (see page 15); there was a single case of poliomyelitis

in an outlying house.

The general death rate of 13.2 per 1,000 was slightly higher than that of recent years, while the decennial average of 11.5 again heads me list among parishes containing over 1,000 persons. Of the 37 deaths registered, 1 was due to poliomyelitis, 4 to apoplexy, 2 to phthisis, 2 to violence, and 1 each to tubercular disease (other than phthisis), cancer, and infantile debility. The average age at death worked out at 55.6 years.

**Broadhempston** population, 437, decreasing; acreage, 2,200.

Rateable value, £3,987.

Outdoor relief in 1913, £79 19s. 9d.

Water supply is derived from wells, mostly in the shale, which is the geological formation of the neighbourhood. During the past dry summer several of these ran short, particularly in the lower part of the village, and in consequence the Parish Authorities asked the Rural Council to consider the question of a public supply. The immediate neighbourhood of the village is remarkably destitute of springs, and after some enquiry, two schemes only were found to be at all feasible—one was to get a supply from the Paignton main, which runs within two miles, and the other to make use of a spring in a field near Kiln Cottages, just outside the village. This latter, however, is not at a sufficient elevation to supply all the houses by gravitation, and this would necessitate a pumping station, with continual expenditure for upkeep.

Mr. Rogers prepared estimates for both these supplies, and as far as cost went, there is little difference; but both are expensive, and the Parish Council hesitated to incur this at present. The whole question, therefore, remains in abeyance, but it has been proposed that some of the wells which exhibit shortage should be deepened, and in one or two instances this has been done. Under all the circumstances, in a village with a declining population, and little present prospect of development, a solution is diffi-

cult.

Rainfall for the year amounted to 4

Rainfall for the year amounted to 43.18 inches (8.87 in January).

There is one main sewer, which runs down through the village; this is nearly all piped, and has an outfall

in an orchard.

Water closets are numerous, but in the absence of a public supply, scarcely any of them are flushed; there are also a few pail privies.

NEW WORK.—The sewer was extended 150 feet to take the drainage for the schools, which have been reconstructed during the year.

The drainage of one house has been put in order,

and closet flushed.

The hamlet of FORDER GREEN is supplied by wells. With the exception of two mild cases of scarlatina,

the parish has been free from infectious disease.

Seven deaths (one from influenza) mostly in aged persons, as the high average age at death (59.6 years) indicates, produced a general rate of 16.0 per 1,000, while the mean for the preceding ten years worked out at 19.8.

**Buckland** population 80, decreasing—acreage 1,493.

Rateable value, £771.

Outdoor relief in 1913, nil.

This is a small moorland parish, adjoining that of Widecombe; the waters are, therefore, of the granite type and are pure and abundant.

Closets are on the dry system, and there are no

sewers.

The parish remained free from infectious disease.

Two deaths, both in children, resulted in the apparently high rate of 25.0 per 1,000, but the decennial average of 7.2 keeps its position as the lowest of all the parishes.

**Chudleigh** population 2,006, increasing—acreage, 6,128.

Rateable value, £10,543.

Balance of loan outstanding on the water supply, £678.

Outdoor relief in 1913, £146 17s. 6d.

The town is situated on the western slope of the Haldon Hills, by which it is protected from the north and east, at an elevation of about 250 feet above sea level. Shales, limestone, and green sand are the chief

geological features.

The water supply is derived from the Kennel spring, about two miles from the town, and at an elevation of 400 feet; this is of the excellent quality usually yielded by the Haldon green sand, or the limestone which underlies it. The normal flow is at the rate of 70,000 gallons a day, and is little subject to seasonal

fluctuations; the town is entitled to 40,000—an amount somewhat exceeded in 1913, though to a less extent than in former years—with the option of taking more at the rate of threepence per 1,000 gallons. There is a reservoir containing 70,000 gallons, with a meter, near the source.

SEWERAGE.—Water closets are general, and practically all are flushed. The sewers are mostly modern, and are all piped; there are two main outfalls, which irrigate meadows, but no settling tanks. Two owners of the land below have the rights on the western (far the largest) outfall for purposes of field irrigation; improvements have been effected in the method of distribution during the year, and this system has worked well.

House refuse is removed twice a week.

Work necessitated by the house to house inspection in the autumn of 1912 has now been mostly carried out, and in addition to that given in my last year's report the following has been done:—

Yard pavings repaired			 2
Yards or passages paved			 -
New drains provided			2
Houses wholly or partially	limewas		13
Internal floors concreted			21
Internal floors repaired			 18
Closets provided or flushed			 5
Washhouses 'provided			 5
Closets improved			 19
Urinals flushed			 2
Nuisances abated			 13
Other minor repairs		• • • •	 90
CTS1		112	

There are still some notices which have not been complied with; these are being followed up.

Three new houses were built and plans for 4 passed.

Owing to want of better cottage accommodation, the Council have decided to build 12, and a suitable site was obtained close to the town, with a westerly aspect. A short extension of the sewer and water main in Woodway Street will easily accommodate these; plans have been prepared by ar. Segar, and details of the scheme settled. It only remains to obtain a loan to carry out the work.

The town was free from infectious disease during the year.

Twenty-two deaths were registered, giving the excellent rate of 11.0 per 1,000, which is lowest of all the larger towns in the district, and considerably less than the decennial average of 14.9. The chief causes of fatality were: diarrhæa, I death; influenza, I; and cancer, 4. The average age at death was 48 years.

Cockington population 299, increasing; acreage, 1,451.

Rateable value, £5,100. Outdoor relief in 1913, nil.

The village of that name is partly supplied by the Torquay water, and partly from a private source belong-

ing to Mr. Mallock.

EDGINSWELL is now wholly supplied from the Torquay mains. The public well became seriously polluted in the summer, and has been closed; the three cottages which used it have now me public supply.

SHIPHAY COLLATON has one public spring of good quality, and another which supplies the school, besides

wells.

There are no sewers, and closets are mostly on the dry system.

The drainage of one house was put in order, and

closet flushed.

Three deaths were registered (I from phthisis) which gives the low rate of 10.0 per 1,000, while the mean rate for the preceding ten years worked out at 16.0; the average age at death was 54.7 years.

Coffinswell and Daccombe population 168, decreasing; acreage, 1,152.

Rateable value, £1,746.

Outdoor relief in 1913, 9s. 11d.

There are four public dipping springs—with considerable overflow—two in each of the above villages. The water is abundant, and of excellent quality, though somewhat hard, owing to the sandstone formation of the locality. The cottages are mostly within a reasonable distance of the water supplies.

The higher spring at Daccombe has been closed in,

and protected by a railing.

There are no sewers, and closets are mostly on the dry system.

The parish remained free from infectious disease.

Again no deaths were registered during the year; the mean general death rate for the preceding ten years was

12.2 per 1,000.

Coombe and Haccombe population 376, increasing; acreage, 2,004.

Rateable value, £3,516.

Outdoor relief in 1913, £59 9s. 6d.

The water is derived wholly from wells, mostly in shale and sandstone. There were no complaints of short-

age during the year.

There are no sewers and few water closets, which, in the absence of a public supply, are, as a rule, handflushed. What drainage there is goes into the brook, which runs through the village; this has a fairly rapid course, and is only a short distance above tidal waters. The channel below the village was cleaned out during the summer.

The hamlet of NETHERTON is supplied by springs and wells in the sandstone; water is abundant at all times.

The drainage of one house was reconstructed. The parish was free from infectious disease.

Six deaths (diarrhea 1, cancer 1), give a general rate of 16.0 per 1,000, as compared with the decennial mean of 14.1; the average age at death was 30 years.

Dawlish West population 663, decreasing; acreage, 3,870.

Rateable value, £9,566.

Balance of loan outstanding on the water supply, £2,696 13s. 4d.

Outdoor relief in 1913, £16 2s. 6d.

This parish lies largely in the Exe valley, and bor ders on the estuary of that river; the formation is chiefly sandstone.

The rainfall for the year was 33.20 inches (January

6.92).

The population is broken up into several villages and hamlets; those on the river front—COFTON, MIDDLEWOOD, WESTWOOD, and MOUNT PLEASANT—obtain their water from springs at Duck Aller, whence it is pumped by an oil engine to a reservoir containing 70,000 gallons, on the top of Eastdon Hill. From this point the main is distributed to the above places, running along the river. The water is fairly soft, pure, and abundant; a constant supply is always maintained. Nearly all the houses within reach of the main are connected.

The scattered hamlet of DAWLISH WEST lies more inland, in the valley between Haldon and the coast hills; this includes several dairy farms, which send milk to the town of Dawlish. Private wells and springs constitute the water supply, which, in a sandstone district, is generally abundant.

The mains of the Dawlish Urban District run through this valley, but at present that Council can only

supply water within their own area.

The sewers from the ravine hamlets of Westwood and Middlewood are discharged into separate tanks in the meadow below, which are cleaned out periodically; the Cofton sewer has an outlet into tidal waters. At Mount Pleasant, where there are several villa residences, cesspits are the rule; there are no sewers here or at Dawlish Water.

Water closets are general, except at Dawlish Water, where the dry system prevails, and practically all are flushed.

The Bungalows on the Warren—a spit of sand extending across the mouth of the estuary—numbering between 30 and 40—depend on rain water for all purposes. The Golf Club house and two bungalows, however, have the public supply.

Most of them have water closets, the drainage from which is readily absorbed by the sand; these are

flushed from rain water tanks.

Two new houses were built, and plans for 4 passed;

the drainage of one house was put in order.

Three cases of mild scarlatina were reported early in the year (see page 17), otherwise the parish was free from infectious disease.

Six deaths—all in aged persons—with the very high average age at death of 80.5 years, give a general death rate of 9.0 per 1,000, while the decennial mean worked out at 10.3. These are all excellent figures.

Denbury and Torbrian population 431, decreasing; acreage, 3,002.

Rateable value, £4,236.

Outdoor relief in 1913, £19 13s. 3d.

The village of Denbury occupies a moderately elevated and open position, while Torbrian lies in a sheltered valley about two miles distant; limestone is the chief geological feature. The water supply of the former village is derived from two adjacent springs on the Beacon. There are now two reservoirs, containing 10,000 and 21,000 gallons respectively; from these it is distributed by means of standpipes, only one or two houses being directly connected with the main. The Rectory and two other houses depend on adjacent springs. For some time past efforts have been made to augment this supply, which has been somewhat short in the summer; with this object the storage has been increased to about threefold its original capacity.

There are two main sewers, which unite to form a common outfall; this discharges into a limestone fissure

below the village.

Several houses at the top of North Street are witnessed sewer accommodation, and the nuisance caused by the emptying of privy pails and slops in the adjoining meadow demands some remedy. The question of extending the sewer is under consideration.

Water closets are general, but few are flushed, as hitherto there has not been sufficient water for the pur pose. It is doubtful if even the increased storage will suffice for this, but I propose to make a house to house inspection of the parish during the present year, and the question of flushing of closets will receive at tention. In most cases it is possible to store roof water: this will relieve the water supply to a certain extent.

TORBRYAN has a good and abundant water supply derived from an adjacent limestone spring; this is distributed by means of standpipes.

Closets are on the dry system, and there is no sewer.

One new house was built, and plans for another passed.

The parish was free from infectious disease.

Five deaths, of which the large proportion of 3 was due to violence, resulted in a general death rate of 11.6 per 1,000; the mean for the preceding ten years was 15.8, while the average age at death was 30 years.

Hennock population 733, increasing; acreage, 3,299.

Rateable value, £5,241.

Balance of loan outstanding (Chudleigh Knighton water supply) £841 10s.

Outdoor relief in 1913, £110 15s.

The village of that name, containing about 150 per sons and 35 houses, occupies an isolated position near the Torquay water works, at an elevation of 700 feet above sea level, on a granite formation. The water supply is mainly derived from a spring in the vicarage gardens, conducted by piping to a shute in the village. Many of the cottagers have to go some little distance for the water; the scheme for storing and distributing this supply is still in abeyance, but negot ations have proceeded with the Vicar with regard to a site for the tank, hitherto without result.

Several cottages are accommodated by another spring, with a small collecting tank, about 200 yards

south of the main part of the village.

Both these waters are of excellent quality, and there were no complaints of shortage during the year.

Rainfall in 1913 amounted to 44.49 inches (January

8.62).

There is a short piped sewer in Bell Lane, which, after a break is continued through the gardens of houses on the east side of the village; a stone sewer opposite the inn recently became choked, and a sub-committee of the Council, which visited Hennock to consider this and the water question, reported that both required early attention.

TEIGN VILLAGE lies on the slope of the hill below Hennock, and consists of 48 cottages, occupied by quarrymen.

Water supply is derived from a spring above the village; there is an open reservoir, containing about 22,000 gallons, and the water is pure, soft, and abundant.

The sewerage is treated in septic tanks with mechani-

cal filters, in a field below.

Water closets are universal, and all are flushed.

Chudleigh Knighton, with 75 houses, lies in the Teign Valley below, part of which is included in the parish; the subsoil is mostly clay and gravel. The water is that of Torquay, and there is a reservoir at Dunleigh, which contains about 12,000 gallons. Nearly all the houses have the public supply, and closets which exist are nearly all flushed; there are also many pail privies.

There is a short sewer, discharging into a goyal be-

low the village.

Nearly all the work entailed under the House to House inspection in 1912 has been carried out; only a few items remain to be attended to.

The drainage of one dwelling was put in order, and closet flushed.

An outbreak of scarlatina occurred in the late autumn months (see page 16), but without any fatalities.

Thirteen deaths, with an average age at death of 34.7 years, give a general rate of 17.7 per 1,000; the decennial mean was, however, much lower—13.4. The chief causes of fatality were: phthisis, 1 death; infantile debility, 2: apoplexy, 2; and violence, 1.

Ideford population 239, decreasing; acreage 1,440.

Rateable value, £1,846.
Balance of loan outstanding on the water supply,

£490.

Outdoor relief in 1913, £15 18s. 3d.

The village lies in a sheltered position on the western slopes of Haldon, at an elevation of about 300 feet above sea level; it has a pure and abundant water supply from a spring on the hills above, and there was no shortage during the past year. There is a high level reser-

age during the past year. There is a high level reservoir, which contains 10,000 gallons, whence it is distributed by stand pipes.

The rainfall amounted to 34.02 inches (January 6.81)

The hamlet of OLCHARD lies about a mile distant, and is supplied from a pure and abundant limestone spring, from which the water is pumped by a water wheel to a small tank of 4,000 gallons on a hill above, and thence distributed by a lin. main to the various houses; this has worked well during the year.

The parish remained free from infectious disease.
Only one death was registered, giving a general rate
of 4.2 per 1,000; the mean rate for the years 1903-1912,
worked out at 14.8.

**Ilsington** population 989, increasing; acreage 7,843.

Rateable value, £7,350.

Outdoor relief in 1913, £135 15s.

This parish has a large area, with a scattered population, and contains several villages and hamlets. Like that of Hennock, on the opposite side of the valley, it lies partly on granite uplands, and partly on the low lying clay formation of the lake bed.

Rainfall at Ilsington during the year, 49.88 inches (January 9.91, March 6.27, November 6.13, April 6.10.)

The village, which gives its name to the district, is 650 feet above sea level, with about 25 houses, including the vicarage, two farms, and a school attended by about 70 children.

The water supply is derived from a stream arising on Haytor Down, which takes an open course, partly on the moor, partly through cultivated land, and also for some distance along the roadside. This is open to various surface pollutions throughout, and in dry seasons is at times deficient in quantity.

HAYTOR VILLAGE, on the verge of the Down, chiefly depends on a spring which rises in the quarry, and is thence piped down to the houses; there are also a few wells. These supplies in summer are taxed to their ut-

most capacity.

PINCHAFORD, a hamlet just below Haytor, with a farm and six cottages, is at some distance from the Ilsington leat, whence drinking water is fetched, while HIGHER BRIMLEY (an off farm and eight cottages), depends on a roadside well, which has been known to fail in the summer.

In the Teign Valley below lie LIVATON, COLD EAST, and HALFORD, scattered over a considerable area; these are all dependent on wells, some fair, others of indifferent quality, and four cottages at Livaton have nothing but the stream. There is, however, a well of potable water at Halford, belonging to some charity property, which is used by the neighbouring cottages. The school at Blackpool (about 75 children) with the teacher's house, depends on a shallow well in the playground (6 feet deep); this has often failed in dry summers. An adjacent slaughterhouse uses an open water course.

Some further progress has been made during the year in the proposed water scheme to supply this area. At the time of the Local Government Board enquiry, in the August of a particularly dry year (1911) the amount of water available had decreased so much as to render the yield insufficient for the purpose. During the past year the collecting pipes have been relaid at a deeper level, and more water thus obtained. Plans have now been sent to the Local Government Board for a scheme to include the village of Ilsington, the neighbourhood of Haytor, Pinchaford and Livaton; the rest is, for the present left. A public supply is much needed and the opening of a new clay field near Livaton will tend to increase the demand.

SIGFORD, another hamlet, has an excellent supply brought in by gravitation from a spring, and distributed to the various dwellings, while the village of SOUTH KNIGHTON depends partly on wells and partly on a public spring, with small storage tank.

MOUNTSLAND, a hamlet on the extreme west of the parish, is supplied by a spring, also piped to the houses.

There are two short sewers at Livaton and Haytor Village, at which latter place there is a septic tank and field irrigation of the effluent. The outfall at Livaton has been extended and a mechanical filter provided.

Closets at Haytor are mostly flushed, but where these exist at Livaton, there is no water for the purpose.

Elsewhere the dry system obtains in general.

NEW WORK.—New outfall works carried out at Livaton.

One new house was built, and plans for two others passed. The drainage in connection with eleven houses was put in order, and five closets flushed.

With the exception of a single case of poliomyelitis,

the parish was free from infectious disease.

Fourteen deaths were registered (phthisis, "others tubercular" cancer, and poliomyelitis, I each); this gives a general rate of 14.2 per 1,000, as compared with a decennial average of 11.8. The mean age at death was 44.3 years.

**Ipplepen** population 753, decreasing; acreage, 2,887.

Rateable value, £8,843.

Balance of loan outstanding on the water supply, £2,477 13s. 4d.

Outdoor relief in 1913, £15 5s. 6d.

This is an upland parish—about 200 feet above sea level — on a shale and limestone formation. The water supply is derived from the Paignton gathering ground near Holne, and presents the usual qualities of a good moorland water; there is a home reservoir on a hill above the village, whence it is distributed to the houses, nearly all of which have the water, though one or two wells still remain on the outskirts.

The sewerage is of modern construction, and is all brought to one outfall at a considerable distance from the village; there is a septic tank, the effluent from which irrigates meadow land.

The drains of two houses were put in order and closets flushed.

With the exception of a single cases of diphtheria, the

parish was free from infectious disease.

Only 6 deaths were registered (cancer 1), giving the low general rate of 8.0 per 1,000, as compared with an average of 14.4 for the preceding ten years; the mean age at death worked out at 43.2 years.

# Kingskerswell population 989, decreasing: acreage, 1,797.

Rateable value, £8,095.

Balance of loan outstanding on the water supply, £1,630 8s.

Outdoor relief in 1913, £43 12s.

A large residential village, nearly midway between Newton and Torquay, whose water supply it shares, though there are a few wells still in use. There is a home reservoir of about 80,000 gallons capacity, on the hill above.

Limestone is the chief geological feature.

The rainfall amounted to 35.73 inches (Jan. 7.91).

Water closets are general, the majority of which are flushed: the sewers are piped throughout, and there are two outfalls, with settling tanks, the overflow from which irrigates meadow land. Neither of these is regulated by the authority.

WHILBOROUGH, a hamlet about a mile from the village, has a public well of only fair quality, which is not always satisfactory; the inhabitants have, in some cases, to go a considerable distance for their water.

There is a want of cottages in this parish, and the Council propose to build 20; negotiations for a suitable

site are in progress.

I had several complaints as to the street scavenging in the summer, which is only carried out once a week by the road men, but at present the matter remains in abeyance.

Four new houses were built.

Infectious disease was represented by a few mild cases of diphtheria, and two of scarlatina; there was also an outbreak of German measles among children in the early spring months. There were no fatalities from either of these diseases.

Twenty-six deaths give the high rate of 26.3 per 1,000, but these were largely among aged persons, the average age at death reaching 50.6 years. On the other hand, the mean rate for the years 1903-1912 was little more than half that figure—14.3. Chief causes of fatality were: diarrhæa, I death; tubercular disease, I; cancer, 3; apoplexy, 2; and violence, I.

Seven deaths of residents dying outside the district

helped to augment the total.

Kingsteignton population 2,246, increasing; acreage, 3,975.

Rateable value, £15,010.

Balance of loan outstanding on the water supply, £2,185 2s. 5d.

Outdoor relief in 1913, £406 6s. 6d.

The parish lies mainly on the clay formation of the Teign Valley, and is the chief seat of that industry; the town, which is the largest centre of population in the dis-

trict except Bovey Tracey, continues to develop.

Water supply is derived from the Holywell Spring in Ugbrooke Park, and is of excellent quality; there is a reservoir below the intake (with meter) of 85,000 gallons capacity. The flow of the spring varies considerably according to the season, but the parish is entitled to 43,000 gallons a day, with the option of taking more at the rate of threepence per 1,000 gallons. The above quantity was slightly exceeded during the past year.

The sewers are all piped, with the exception of a large tile and brick culvert, which extends from the centre of the town to the outfall. It is here joined by the sewer from Gestridge, and at the junction is a septic tank, the effluent from which irrigates meadows: there is another

small outfall in the same field.

Water closets are general, and all in the town are now flushed.

House refuse is removed once a week.

PRESTON, SANDYGATE, and GAPPA, hamlets in the parish, are supplied with water from the Kingsteignton mains; there are no sewers except a short one at Sandygate, and closets are, as a rule, on the dry system.

NEW WORK.—The building of cottages still continues, though hardly perhaps as actively as in the previous year; nine dwellings were completed, and plans for

one passed.

The sewer and water mains were extended to accommodate the new cottages.

The drains of three houses were put in order, and

two closets flushed.

The sewer outfall at Sandygate has been reconstruc-

ted, with catchpit.

A few cases of mild scarlatina were reported during the year, and an outbreak of whooping cough among

children in the spring caused two fatalities.

As in the previous year, 36 deaths were registered, giving a general death rate of 16.0 per 1,000, which is practically the same as the decennial average of 16.3. The chief causes of fatality were: whooping cough, 2 deaths; diarrhæa, 1; influenza, 5; phthisis, 5; other tubercular diseases, 3; cancer, 2; apaplexy, 4; infantile debility, 1; and violence, 3. The average age at death was 38 years.

Lustleigh population 434, increasing; acreage, 2,978.

Rateable value, £3,681.

Balance of loans outstanding: water supply, £1,855; sewerage, £75; total, £1,930.

Outdoor relief in 1913, £25 11s.

This village lies in an elevated, though sheltered valley, about 300 feet above sea level; granite is the main geological feature. Water supply is derived from the South Harton spring, and is soft, pure, and hitherto sufficient for the needs of the population. A constant supply was not, however, maintained throughout the year, and the water was cut off at night for about six weeks in the summer.

The sewerage system is combined with that of Brookfield and Wreyland, which are in the parish of Bovey Tracey; this has an outfall and irrigating gutters in a meadow below the village, under the management of the authority, who have appointed a man to attend to the work.

NEW WORK.—Building continues to progress; two new houses were completed and plans for two others passed. The drainage of four dwellings was put in order and two closets flushed.

With the exception of some cases of whooping cough among children in the early part of the year, the parish was free from infectious disease. Only four deaths were registered, in aged persons, with the high average age at death of 62.2 years; this gives a general death rate of 9.2 per 1,000, while the decennial mean worked out at 12.7. These figures are all excellent, and very nearly approximate the returns of 1912.

Manaton population 286, decreasing; acreage 6,422.

Rateable value, £2,796.

Outdoor relief in 1913, £28 11s.

This is a moorland and sparsely populated district, at an elevation of about 800 feet above sea level; a few houses near the church and school, with the adjacent hamlets of FREELAND and WATER, comprise all the centres of population. Private wells and springs constitute the water supply, which is generally pure and abundant, and of the usual granitic type.

Rainfall in 1913, 61.15 inches (January 9.45, Novem-

ber 8.25, April 8.14).

There is a short sewer crossing the Green, but closets

are mostly on the dry system.

One new house was built, and plans for another passed. The drainage of one dwelling was put in order, and closet flushed.

With the exception of a case of diphtheria in a visitor, contracted elsewhere, the parish was free from infectious disease.

As in the previous year, 6 deaths were registered (violence, 1), giving a general rate of 21.0 per 1,000; but the average for the years 1903-1912 was much lower—15.9. The mean age at death was 47.5 years.

Moretonhampstead population 1,561, slightly increasing; acreage, 7,910.

Rateable value, £9,505.

Balance of loans outstanding: water supply, £659; sewerage, £2,716 13s. 4d.; total, £3,375 13s. 4d.

Outdoor relief in 1913, £210 13s.

This moorland town lies at an elevation of nearly 700 feet above sea level. The water is derived from various springs at Moor—about a mile above the town—and is soft, pure, and abundant. The area of intake—beds of granite sand—is considerable, and the carrier pipes to the open reservoir are nearly all cemented and socketed glazeware.

Rainfall in 1913: at the Rectory 45.46 inches (Jan. 7.88); at the Blackingstone (500 feet higher) 47.50 inches

(January 8.85).

Water closets are general; those in the town are practically all flushed. The sewerage system consists of two main sewers, encircling the hill on which the town stands, which unite just below the station. The system terminates in a septic tank with land irrigation at Wray, about a mile lower down; the working of this has been fairly satisfactory during the past year.

House refuse is removed three times a week.

A house to house inspection of the parish has been made by Mr. Rowe (with the exception of the hamlet of Doccombe, by myself) during the spring and summer, with the following results:—

Total number of houses in the Parish ... 398

" " in the Town ... 297

" in Doccombe ... 22

" of other isolated dwellings 79

Of the above 247 were labourers' cottages, and in these lived 637 adults and 304 children, or an average of 3.8 persons per house; excluding back kitchens and sculleries, the number of living rooms totalled 1,024, or

just under I person per room.

Eleven overcrowdings were found; four have been abated, the rest will be followed up. The greatest number of tenants in other houses, amounted to 9 (6 children) in a 6 roomed house; 8 (5 children); 8 (2 children) in 5 roomed houses; 7 (1 child) in a 4 roomed; and 7 (5 children), and 6 (4 children) in 3 roomed houses.

There were 15 houses containing 2 rooms)

			Contectining	-	TOOITE	
,,	74	,,	,,	3	"	
,,,	53	33	39	4	,,	Excluding
,,,	120	"	39	5	"	back
,,	37	,,	,,	6	,,	kitchens
,,	40	,,	19	7	" 1	and
33	19	,,	"	8	,,	sculleries.
,,	13	,,	,,	9	,,	
"	. 27	,,,	more than	9	,,	

275 houses had slate roofs, 79 thatched, 40 tile, and 4 galvanised iron. All these were generally in good condition, and the dwellings were mostly dry and in good order.

301 houses are supplied from the public mains; 29 depend on wells, 66 on springs, and 2 on other sources.

Distance from Water.—372 houses have the water supply on the premises; 12 are within 25 yards, 4 within

50 yards, 5 within 100 yards, and 5 over.

Closet Accommodation.—There were in all 312 water closets, of which 309 are flushed. Besides these there were 58 pail privies, 9 modern privies, and 19 of the old pit variety; many of these have been improved

249 Intimation Notices (on houses) were served, the most important being drainage and paving of yards, back

kitchens, etc.

The result of these Notices at p	resent	is: —	-
Houses made dry			6
Drains reconstructed			I
Yards concreted			33
Back house floors concreted			8
Nuisances removed			2
Closets reconstructed			1
Closets reconstructed			
Houses limewashed throughout through infectious disease)			
Houses limewashed throughout through infectious disease)	(other	than	3
Houses limewashed throughout through infectious disease) Wash-houses provided to cottage	(other	than	3
Houses limewashed throughout through infectious disease) Wash-houses provided to cottage Floors repaired	(other	than 	3 3 6
Houses limewashed throughout through infectious disease) Wash-houses provided to cottage	(other	than  	3 3 6 1

Doccombe is all in the hands of one owner, whose agent met Mr. Rogers and myself on the spot, and agreed

to carry out the work required.

There is some want of cottages in the parish, and six are shortly to be built at the end of Pound Street by Viscount Hambledon.

NEW WORK.—A new water area has been taken in on Mardon Down and collecting pipes laid.

Three new houses were built, and plans for six

passed.

The hamlet of DOCCOMBE, on the Exeter road, about 750 feet above sea level, is supplied with water by one spring, and several wells, generally of fair quality.

The parish was free from infectious disease.

Twenty-three deaths were registered, giving a general rate of 14.7 per 1,000, as compared with a decennial average of 16.2. The chief causes of fatality were: influenza, I death; phthisis, I; cancer, 3; apoplexy, 3; and violence, 2. The average age at death was high—60.9 years.

North Bovey population 380, decreasing: acreage, 5,589.

Rateable value, £2,747.

Outdoor relief in 1913, £36 12s. 3d.

This parish is on the border of the moor: in fact, the whole of the Moreton sub-registration district, which includes Moreton, Manaton, North Bovey, and Lustleigh, lies on a granite formation at a considerable elevation.

The village depends for its water supply on wells, both public (on the green) and private. There were no

complaints of shortage during the year.

On making an analysis of the public well on the Green, I found evidence of some pollution, and on my suggestion the drainage in the vicinity was examined. Much of this was found defective, and some not even piped, necessitating the reconstruction of practically the whole of it. This is shortly to be carried out.

A house to house inspection of the parish was made by Mr. Rowe during the summer; this is, however, not yet quite completed. All the property practically is in the hands of one owner, and is generally in good order.

Results at present as follows: -

Total number of houses inspected in the Parish ... 36

" inspected in the Village... 28

" of other isolated dwellings ... 8

Of the above 30 were labourer's cottages, and in these lived 96 adults and 41 children, or an average of 4.4 persons per house; excluding back kitchens and sculleries the number of living rooms totalled 132, or

just over one person per room.

One case of overcrowding was found and has been abated; the greatest number of tenants in other houses amounted to 8 (2 children), 7 (5 children), 6 (2 children) in 5-roomed houses; 6 (3 children), 5 (2 children in 4 roomed, and 5 (2 children) in 3 roomed houses.

There was I house containing 2 rooms

" 10 " " 3 "

" 5 " " 4 "

" 12 " " 5 "

back kit
back kit
chens and

sculleries.

And 2 houses containing more than 8 rooms'

9 houses had slate roofs, 20 thatched, the remainder being tile or galvanised iron. All these were generally in good order, and the houses dry. The water supply of this village is chiefly from wells, there being a public one in the Green; 33 houses derive their water supply in this way and 3 from springs.

Distance from water.—20 houses have the water supply on the premises; 13 are within 25 yards, and 3

within 50 yards.

Closet Accommodation.—In the houses inspected there were in all 3 water closets, 29 pail privies, and 4 pit

privies.

As the inspections in the parish have not yet been quite completed, no notices have yet gone out; the rest of the parish will be worked in conjunction with Manaton this year.

There is one sewer, on the Green, but pail privies are

almost universal.

The parish remained free from infectious disease. Only one death was registered, giving a general rate of 2.6 per 1,000; the average for the preceding ten years is also very low—8.5.

Ogwell population 236, decreasing slightly: acreage, 2,089.

Rateable value, £2,698.

Outdoor relief in 1913, £11 19s. 6d.

Water supply is that of Torquay, which is derived from the Abbotskerswell main and delivered into a reservoir, containing about 70,000 gallons; thence it is distributed by standpipes, though about 12 houses have the water supply on the premises. The deep well which formerly constituted the sole supply has been abandoned, since it did not give a sufficient yield to make pumping worth while. The water question here is, therefore, finally settled.

Closet accommodation is mainly of the privy type,

and there are no sewers.

NEW WORK.—The water main has been extended to West Woods, to supply three villas.

Two new houses were built, and plans for two others

passed.

The drainage of two dwellings was put in order, and a closet flushed.

Infectious disease was confined to a single case of scarlatina.

Only one death was registered (due to phthisis), giving a general rate of 4.2 per 1,000, as compared with a decennial average of 17.4.

**Stoke** population 461, stationary; acreage 2,167. Rateable value, £3,772.

Outdoor relief in 1913, £43 17s. 8d.

There are two public and many private wells: these are in the sandstone, and I had no complaints of shortage during the past year.

There is a sewer discharging in a meadow below the village; water closets are, however, few, and, as a rule, handflushed.

The hamlet of HIGHER GABWELL is supplied by wells. MAIDENCOMBE, which lies in an isolated position on limestone cliffs, overlooking the sea, has one public spring, and a few private wells, but some of the higher houses depend largely on rain water storage, and in dry summers this supply is precarious.

The public well was cleaned out, protected, and a tank built.

Plans for one new house were passed.

The parish remained free from infectious disease. Three deaths (cancer I, violence I), gave a general rate of 6.5 per 1,000, while the mean for the preceding ten years worked out at 13.4. The average age at death was 51.3 years.

Teigngrace population 165, decreasing; acreage 1,496.

Rateable value, £3,091.

Outdoor relief in 1913, £5 7s.

This is a small and sparsely populated parish in the Teign valley, adjoining that of Highweek (Newton Urban District). The water supply is largely derived from wells, generally of the moderate or indifferent character yielded by the clay formation of the neighbourhood.

The schools, 6 cottages, and a farm adjacent, have, however, an excellent spring water brought down by gravitation from Staplehill.

Infectious disease was confined to an outbreak of whocping cough among children in the early part of the year.

Three deaths (infantile debility 1) two in infants, give a general rate of 18.2 per 1,000; the decennial average was, however, less than half this figure—8.7.

**Trusham** population 175, increasing slightly; acreage, 625.

Rateable value, £930.

Outdoor relief in 1913, £39 12s. 7d.

This is considerably the smallest parish in the district in area, and occupies an isolated position on the western slopes of Haldon, at an elevation of about 300 feet. There is one public dipping spring, but this tends to run very low in dry seasons; a deep well in the upper part of the village, where the shortage of water is especially felt, is not fit for drinking purposes. Besides these there are several private wells; those in the lower part of the village have generally given a sufficient supply.

There are no sewers, and closets are mainly on the dry system; several slop drains discharge into the brook.

Rainfall in 1913 was 35.82 inches (7.67 in January).

The drainage of one house was put in order.

One new house was built, and plans for another passed.

The parish was free from infectious disease.

Only one death was registered, giving a general rate of 5.7 per 1,000, as compared with a decennial average of 14.0.

Widecombe population 633, decreasing; acreage 10,786.

Rateable value, £5,825.

Outdoor relief in 1913, £2 15s.

This moor parish is the largest in area in the district, and has a considerable portion of uncultivated land. The villages of LOWER TOWN, WIDECOMBE, and PONS-WORTHY, and the hamlets of POUNDSGATE, and DUNSTON are the chief centres of population. They all lie in the valley of the Webbern, a tributary of the Dart, at a considerable elevation above sea level, though protected by the surrounding hills.

Many of the houses at Widecombe are supplied with water by a spring on the glebe land, brought in by gravitation; there is also a dipping spring with overflow of very fair quality. The granitic formation, on which the whole parish lies, yields generally, pure, soft, and

abundant waters.

Ponsworthy has two good springs, and there is

another at Lower Town, besides wells.

The rainfall at Leusdon amounted to 66.73 inches (January 10.13, April 9.83, March 9.21, November 9.01.)

There are few water closets, and only two short sewers, both at Widecombe; pail and pit privies are general.

One new house was built.

Again 9 deaths were registered (cancer, apoplexy, and violence, 1 each), giving a general rate of 14.2 per 1,000, while the average for the preceding ten years was 12.6. The mean age at death was 44.8 years.

Woodland population 158, decreasing; acreage 1,634.

Rateable value, £1,872. Outdoor relief in 1913, nil.

This is another parish of purely rural type, in which moreover there are no centres of population; shales and slate are the predominant geological features. Water is derived from wells, and I had no complaints of shortage during the past year.

Closets are mostly on the dry system, and there are

no sewers.

The drainage in connection with three houses was

put in order.

The parish remained free from infectious disease. Two deaths were registered—both from phthisis—with an average age at death of 53.5 years; this gives a rate of 12.7 per 1,000, while the mean for the years 1903-1912 worked out at 8.7.

The following is a list of the more important public works completed or under construction in 1913, or contemplated in the immediate future:—

ABBOTSKERSWELL.—Sewerage system to be extended to the upper part of the village; tender accepted.

BOVEY TRACEY.—More cottage accommodation to be provided by the Council; site not yet obtained. Water supply to be further augmented.

BROADHEMPSTON.—Scheme for a public water supply under discussion, but postponed for the present.

CHUPLEIGH.—Twelve cottages to be built by the Council; plans approved and the site obtained.

DENBURY.-New storage reservoir provided.

HENNOCK.--Scheme for water supply to the village still in abeyance.

ILSINGTON — Water scheme not yet carried out, but further progress has been made.

KINGSKERSWELL.—More cottage accommodation to be provided by the Council; site not yet definitely settled.

KINGSTEIGNTON.—Further large extensions of sewerage and water mains have been carried out.

MORETONHAMPSTEAD.—Water supply augmented.

More cottage accommodation provided by Viscount

Hambleden.

OGWELL.-New water scheme carried out.

# Report of Mr. R. A. ROGERS, Sanitary Inspector.

To the Chairman and Members of the Rural District

Gentlemen,—

The report below gives briefly the works over which I have chief control and supervision; the Reports on the House to House Inspection, the Factories and Worshops, Dairies and Cowsheds, are written by my Assistant, and given in detail on separate sheets in tabulated form.

Building operations have not been so active, only 22 cottages having been erected in 1913, and an official can scarcely refrain from asking what are the causes. In my opinion they are numerous: -(1) Land is still difficult to obtain near the towns and villages at a reasonable price; (2) The speculating builder perhaps finds it less easy to obtain money at the old rate of interest, as small capitalists get a better return with equal security in other investments; (3) The rise in the price of building materials and cost of labour has increased the rents of cottages beyond the rise in labourers' wages; (4) Unfortunately the builder is somewhat afraid to build cottages in parishes where they are wanted, because ne fears the Council may build and come into competition. Although we may do all we can to persuade them mat this is not the intention nor the purpose of the act, they are not easily convinced.

41 New houses and additions of all description for which plans were produced, built,

36 Sets of plans approved.

3279 Feet of water mains laid by the Council.

828 Feet of sewers laid by the Council. 46 New drains were laid and tested.

61 Houses were served by these.

33 Closets have been provided and flushed.

6 New earth closets erected.

103 Drains tested either by Assistants or myself.

169 Rooms fumigated after cases of infectious diseases.

6 Cow shippens paved with brick or concreted.

161 Official notices served.

292 Intimation notices and signed by myself. 800 Official letters entirely on Sanitary matters.

# Table showing Sanitary Work carried out in the different parishes in 1913.

	abi	e	sno	W	ing	Sanitary W	ork/	C	arr	ie	d o	ut	in	th	ie (	different parishes in 1913.		
		New Buildings.		lew Buildings.		v Buildings.				0	ld H	ouse	9.	1	Iro	Land	1 -	1
		Built. Plans passed.				ply.	rs	-	-	· 10 1		1 8	ate	ly or	ens			
Parishes.		Houses.	Additions and other buildings-	- Characterist	Additions and other buildings.	Water supply	New sewers (in feet).	New drains.	Houses served.	Closet provided or flushed.	Earth Closets.	Drain Tests.	Rooms fumig	Houses wholly or	Cow-shippens	Remarks.		
Abbotskerswell		2			0			1	1	1		1	2			A scheme to complete the sewerage system is now in hand and being tendered for.		
Bickington Bishopsteignton			2	10	3	270ft. 4in. glazed socket- ted pipe.	60		3	2		10			1 1	New sewer to the Long Marston Estate put in by builder. New 4in. glazed socket pipe put in from the tank to Reservoir at Luton.		
Bovey Tracey	**	3	4	1	.9			9	12	7		19	68	2		New storm overflow tanks built in Mr. Bentinck's field, also a storm overflow pipe was put in at the Dolphin Hotel. The Council and Church Schools have been disinfected and both redone-up throughout.		
Broadhempston Buckland Chudleigh						390	148	1	1 7	1		1	4 5	13		New sewer laid from the Bakery Corper to receive school drainage.  The pot water course has been relaid in part in Culver Street, used		
Cockington Coffinswell&Dacco	ombe							1	1	5	2	1	3	 1	2	only for slop purposes. Public pump at Edginswell closed by Council. The spring at Higher Cottages, Daccombe protected and railed off to keep off cattle.		
Coombe & Haccon Dawlish West Denbury & Torbry Hennock Ideford Ilsington		2 1	 1	4 1  2	 1 7			1 1 1 1 1 1	1 1 3 1 1 11			1 1 2 2 2 2	5 28	"i "3	 i	New shippens etc., at Heathfield. New storage Reservoir built to contain 21,000 galls. additional storage Stone sewer in the village has become choked.		
Ipplepen	***				1			5 2	2	5 2		5	2 7	1	1	New Urinal provided at the New Inn. New outfall with mechanical filter provided at Levaton.		
Kingskerswell		4			1							4	15			Two new 4in, meters provided by the Torquay Corporation.		
Kingsteignton		9	3	1	3	315	620	3	3	2		10	11			New 3in. water main and 9in. sewer laid from Govers View to top of Football Lane. New catchpit and outfall provided to sewer at Sandygate.		
Manaton Moretonhampstead	d	1 3	3 1 1	1 6	3 1 1	500 4in. glazed socket		3 1 3	1 2	2 1 3	 ï	7 2 8	5	3		Sewer outfall under the control of a man employed by the Council.  500 feet of 4in. collecting pipe laid from new spring on Mardon Downs to Reservoir. House-to-house inspection of parish completed.		
North Bovey Ogwell		2		2		pipe. 1804 4in. & 3in.		2	2	ï	ï	1 6				to Reservoir. House-to-house inspection of parish completed.  House-to-House inspection made of parish.  New water supply taken to Reservoir from the Torquay mains.  Water main extended to Westwood.		
Stokeinteignhead				1												Waidencombe well-road has been made up, well cleaned out and an extra tank built.		
Teigngrace Trusham Widecombe		1		ï				ï	ï			2	5	 ï				
Woodland Totals		41	21	36	28	3279	828	1 46	3 61	33	4	103	1 169	25	6			

( I E ci r c t i ( e 3 ....

Some parishes require more attention than others, as new work of one kind generally leads to another, particularly is this so when the House to House inspection is

being made or immediately after.

ABBOTSKERSWELL.—In my report last year I mentioned the large expenditure on sewage for a small parish. This, however, has proved a success, but we still find it necessary to make one more extension, for which I have now obtained tenders. A special Committee of the Council visited the village in the autumn, when they unanimously recommended extending the sewer from "Abbotsford" to "Mallands." After this is done I feel certain we shall have all that is required to effectually drain the main village.

BISHOPSTEIGNTON.-Further building has been continued at "Long Marston." The sewers have been laid by the ground landlord. The water main is a matter not finally settled, the Council offering to pay one-half the cost provided the owner paid the remainder. The consumption of water was greatly in excess of the local supply, consequently we took a large amount from the Teignmouth supply. The sewers may be considered

fairly satisfactory.

BOVEY TRACEY.-A few houses have been built near the Station, otherwise no houses have been provided, although there has been a request for cottages, and the Council have tried to get land for that purpose. can be obtained, but not cheaply, in or near the towns. Considerable efforts have been made by the Parochial Committee to augment the water supply, and a good deal of money spent in driving adits on the moor above "Yarner" and in the wood near the lower lodge. will be a subject for a Local Government Board Inquiry almost at once, as Mr. S. C. Chapman, the Torquay Water Engineer, has been called in in consultation respecting a scheme.

BROADHEMPSTON.—The water supply became very limited at the end of the summer, and I was requested to meet a small Committee with the M.O.H. to see if we This we did, and could find a local source or spring. were convinced that a good supply might be obtained from a spring in "Bucknell Meadow," but would require to be pumped up on the hill behind, and then gravitate to the village. I prepared a draft estimate and scheme, also for obtaining a supply from the Paignton mains at Wrenwell Cross. These were considered too expensive, and the Parish Council abandoned any further efforts or expense, except to deepen the existing wells. A branch sewer was laid to take the Schools and other house drainage.

CHUDLEIGH.—There has not been much work carried out at the expense of the Parish, but a great deal of drainage, concrete floors, and yards done by the various owners, after the House to House Inspection. Cottages are about to be built by the Council. Mr. S. Segar has been engaged to prepare plans, and land been purchased provisionally.

DAWLISH WEST.—The consumption of water was very heavy, but the supply being abundant, the expense of pumping is the only question the Parish have to be careful over. A sman pumping plant must of necessity be expensive where it requires a man the whole time to attend to the engines.

DENBURY.—The new Reservoir, 21,000 gallons, has been built at a cost of £240. This, added to the present storage, will improve the water supply for this Village, but constant care will have to be exercised to restrict, and in fact to prevent any waste, otherwise an outside supply will have to be provided.

HENNOCK.—There has not been a shortage of water in the village, but the distance from the shute to some houses is quite 100 yards. The Council have tried to come to terms with the Vicar and patron to get land for a storage tank, from which it is proposed to lay a service pipe. However, difficulties are numerous, but I think they will eventually be overcome.

IDEFORD.—The pumping plant at "Olchard" has worked quite well, and the water ample for all purposes, including power to drive the wheel.

ILSINGTON.—Some building has been carried out at Haytor. The Hotel has been extended, and a large house built by Mr. Simpson. Further houses are in contemplation, plans having been approved. The water supply is being pressed forward.

IPPLEPEN.—No drainage work of importance has been carried out. The consumption of water has been rather excessive, but not out of proportion to other parishes, and considering the very dry season is nothing surprising. The Paignton pressure at times is very great, and causes some inconvenience at our intake: this means constant supervision.

KINGSKERSWELL.—The sewers near the outfall tanks have required cleaning on several occasions; the gradients are very flat, and the scheme has been in working over 30 years, so that we expect to have some outlay in the near future. When the water supply was taken from the Torquay mains fourteen years ago, there was only one 4in. meter, although supplied off two 10in. mains: this meter for the past five years has constantly given trouble, We have now put in two meters, and I think it will prove more satisfactory to all concerned.

KINGSTEIGNTON.—There has been several new cottages built, chiefly in the higher part of the village. The sewer and water main were extended from "Ley Lane" to the "Cross Roads." This is a continuation of the 8in. sewer, laid some years ago, and replaces a defective one, which was very level, and with only about 18in. cover. Any further extension should be kept down, to provide for new buildings (as the only fall will be at the commencement) even if the cost should appear excessive.

LUSTLEIGH.—The water supply proved more satisfactory than in 1912, notwithstanding that we had a dry season instead of a wet one, but I account for this through more supervision. It also proves the main spring to be a deep seated one, and not variable or easily affected by seasons. There was, however, what appeared to be quite a small leak in the valve pit. This was repaired and consequently improved matters.

Moretonhampstead.—Again I have to report the workings of the sewers and outfall tanks as very satisfactory, and am convinced in the opinion I expressed in last year's report, that keeping the section below the Railway clear, has been the cause of the success, although it should have been first laid at a self-cleansing gradient. The Parochial Committee, after considerable discussion and numerous visits of inspection to "Mardon Moor," decided to take in a supplementary spring of water, provided Viscount Hambledon gave his consent. This was at once most generously given, and the work done at the end of the summer. The water is similar in character to that on that side of the valley, but in my opinion, as the quantity taken is increased, in like proportion will be the need of filters.

NORTH BOVEY.—Detailed and lengthy reports are given by the M.O.H. and my Assistant respecting the house to house inspection, drainage and water supply. On different occasions we visited together, and I am arranging with the local agent for Viscount Hambledon to resewer the village this spring.

OGWELL.—The supply of water has now been taken from the Torquay mains into the existing reservoir. A 3in, main has been extended from the "Green" to "Westwoods," the three owners benefiting at once having contributed towards the cost. The several owners who purchased their farms, under the impression that they had a free supply, were convinced that there was not a sufficient supply in the well, this being proved by the adoption of an oil engine, which pumped the well out daily under two hours, and they readily consented to have their supplies for cattle by meter. The Council (wisely I think) making the charge 1s. 3d., compared to 1s. 6d. for new supplies.

STOKEINTEIGNHEAD.—The public well at Maidencombe was, in the opinion of the Medical Officer and myself, liable to a risk of pollution from surface drainage. This I have had altered; the storm water drain has been diverted, and the roadway made up.

Yours respectfully,

R. A. ROGERS.

TABLE SHEWING DAIRIES. SLAUGHTER HOUSES, BAKERIES AND WORKSHOPS IN THE VARIOUS PARISHES.

Parishes.	Dairies & Cow- sheds	Slaughter houses	Bakehouses	Boot repairers	Builders	Coachbuilders & Wheelwrights	Gasworks	Laundries	Milliners and Dressmakers	Plumbers	Saddlers	Smithies	Tailors
Abbotskerswell	9	2	1										
Bickington	1	2157											
Bishopsteignton	10	2	1		2	1	1	2					
Bovey Tracey	19	3	6	2	4	3	1		4	3	1	3	2
Broadhempston		1	1						***				
Buckland							141						
Chudleigh	11	5	8		3	2	1	4	2	1	1	1	2
Cockington	16	2					***						***
Coffinswell&Daccombe	6										***	***	
Coombe and Haccombe	7	1	1			***	***			***	***	***	***
Dawlish West	8									***		***	
Denbury and Tcrbryan	4	2	1								***		
Hennock	4		2						2				
Ideford	1			***						***			***
Ilsington		1	1										***
Ipplepen	8	2	2			1		***				***	1
Kingskerswell		5	2	***	1	1		1	***	***			
Kingsteignton	20	3	3	***	2	1		4	1		1	1	
Lustleigh	3		1					***			***		
Manaton	2		1.2			0		***	3	***	2	3	ï
Moretonhampstead		3	5	***	1	2	1						
North Bovey	1				***				***	***		***	
Ogwell		2	1	***	***					***			***
					***		***						
Teigngrace						***						1	
Trusham	1		1		***	***	***		***	***	***		
Widecombe Woodland		***	1000	***			***						
Woodiand			***				***						
Totals	182	34	38	2	13	10	4	10	12	4	5	8	6

# Report of Mr. C. N. Rowe, Assistant Inspector:

Report on the Bakehouses, Slaughterhouses, and Workshops in the District for the year ended 31st December, 1913:—

During the year 174 visits have been paid to the various workshops, etc., on the register, and below I give

a short report of each trade: -

There are 38 Bakehouses; 2 Boot Repairers; 13 Builders; 10 Coachbuilders and Wheelwrights; 4 Plumbers; 12 Milliners and Dressmakers; 6 Tailors; 10 Laundries; 5 Saddlers; 9 Smiths; and 4 Gasworks, making a total of 113, being one less than last year. Outworkers are not employed, and only on rare occasions is overtime worked; on each visit I found the abstract posted up, and the work rooms, with a few exceptions, in a clean and satisfactory condition. The Slaughterhouses number 35.

## BAKEHOUSES.

There are 38 of these in the district, two of which are "underground." They are all limewashed throughout at least twice a year, some very much oftener, but seven notices had to be served to limewash, the bakehouse requiring it at the time the visit was made. The floor and the passage approach to one bakehouse has, after notice, been concreted.

### BOOT REPAIRERS.

These workshops, of which there are two, are satisfactory in every way.

# BUILDERS.

These workshops are chiefly two-storey buildings, approached by either internal or external staircases, the top portion being used as a workshop, whilst the under serves as a store. The sanitary condition of all is good.

# COACHBUILDERS AND WHEELWRIGHTS.

In this trade there are usually two or more workshops, each used exclusively for building and finishing carriages. In one of these (mentioned last year), viz., that tiles had been removed from the roof to allow of the smoke, generated in the course of the work, to escape, on my advice this has been done away with, and a proper ventilator, made to open, substituted for this.

### PLUMBERS.

Of the four on the register, each is very satisfactory as regards sanitary requirements.

# MILLINERS AND DRESSMAKERS.

These workrooms are usually on the ground floor; but in some cases first floor rooms are used. The air space and sanitary accommodation are ample for all workers. There were no cases of overcrowding, but one notice was sent to the owner to clean up the workrooms. This has been done, the paper being stripped off and the walls redone. The girls' bedrooms were treated in a similar manner.

### TAILORS.

There are 6 of these registered, and all are satisfactory, with the exception of one, which was found defective. Notice was served on the owner, and the work has now been done.

### LAUNDRIES.

These are satisfactory in every way. One or two floors, however, have received attention in the way of small repairs, and one has had extra ventilation provided.

#### SADDLERS.

There are not many employed in this trade in the district, but since the end of the year, the number has increased by one. The sanitary requirements of all are good.

#### SMITHS.

These premises are all satisfactory as to ventilation and other matters.

#### SLAUGHTERHOUSES.

There are 35 on the register. Fifty-three personal visits were paid to the slaughterhouses in the district in addition to those of the M.O.H. and the Chief Inspector; except in five occasions, the premises have been found in a cleanly state. Notices were served, and the work was done without delay. The floors are all washed down at the end of the day when slaughtering has taken place, and all offal is removed the next day. The walls of nearly all are cement rendered to a height of five or six feet, and all are limewashed at least four or five times a year, some monthly.

All are well lighted and ventilated, have a plentiful supply of water on the premises, and on the whole are very satisfactory. In the course of the visits, I have come across a few having leaky taps or allowing the taps to run, and wasting the water. I have warned the offenders, and this has been remedied.

In addition to the Inspection of Workshops, etc., my time is largely employed in making the Inspections under the Housing and Town Planning Act, 1909, and I have prepared a detailed report of the additional work executed at Chudleigh. This will be found in another

column.

House to house inspections were made of Moretonhampstead and North Bovey; the latter is hardly completed, but I am giving a list of what has already been finished.

In drain testing and assisting to fumigate and spray with cyllin, rooms after cases of infectious disease, which during the past year, amounted to 169, also in generally assisting the Chief Officer.

Numerous journeys of inspection were made in the District, sometimes by request of the Medical Officer of

Health, and at others by the Inspector.

C. N. ROWE, A.R.S.I.,

Assistant Sanitary Inspector.

# II. NEWTON ABBOT URBAN.

PHYSICAL CHARACTERS.-The bulk of the town is situated in the level basin of the Lemon, which debouches on to the Teign valley: some of the lower houses stand on the alluvial soil, which forms part of the This valley is flanked by hills delta of those rivers. from 200 to 300 feet high, on which numerous villas have Of late years the town has extended in various directions in the slopes of the hills, and also The main streets along the valley towards Torquay. are as a rule wide; there are comparatively few cross streets connecting them. In the older part of the townchiefly Wolborough Street and East Street, some of the intervening spaces are occupied by Courts, of which there are about 20, containing from 1 to 18 houses-139 in the aggregate.

The geological formation of the hills on the Wolborough or southern part of the district is greensand, gravels, and clay; while in the Highweek or northern parish, shales predominate. These are separated by the alluvial soil of the river valleys.

The rainfall at Highweek amounted to 38.17 inches, rather more than an inch above the average for the past 12 years; 8.07 was registered in January, the wettest month.

OCCUPATION.—The chief industries in the town are the locomotive and coach repairing shops of the G.W.R., a large tan yard, and clay works. These afford employment for several hundred men, the great majority of whom, with their families, live in the town. Newton being in the centre of a large agricultural district, with railway facilities in various directions, has an important weekly market, where much business is transacted. It is also a tourist centre, has many residential attractions, and, therefore, supports a considerable body of retail tradesmen.

The building of the new Secondary Schools, and the Seale-Hayne Agricultural College, both now in progress, point to still further development of the town.

No special diseases have come under my notice which are the outcome of any local condition of employment.

AREA AND POPULATION.—The district comprises the parishes of Wolborough, Highweek, and Milber, with a total acreage of 4,132, and a population at the census of 1911 of 13,712 persons. There were at that time 3,215 inhabited houses, an average of 4.3 persons per house. Allowing for the growth of the town, I have estimated the population at 13,850 for the past year.

RATEABLE VALUE amounts to £62,105 (Wolborough £43,939, Highweek £16,536, and Milber £1,630). Balance of loans outstanding £30,335, of which £2,015 is on account of sewerage, including outfall works, and £500 for public conveniences.

Outdoor relief in 1913: Wolborough, £1,287 6s.; Highweek, £536 16s. 8d.; Milber, nil; total, £1,824 2s 8d—about 2s. 7d. per head of the population.

SANITARY ADMINISTRATION.—The sewerage system and supervision of new buildings are under the control of Mr. C. D. White, Surveyor; while the work of the Sanitary Inspector—including disinfection and removal of bedding—is carried out wholly by Mr. H. Judd.

VITAL STATISTICS.—The number of deaths registered in the district during 1913 was 253, of which 99 took place in public institutions (Union House, 82; Hospital, 13; and Isolation Hospital, 4); 64 of these are deducted, together with 8 other transferable deaths, which belong to other districts, while 7 deaths in the County Asylum, and 5 others transferable among former residents, are added. This gives a nett total of 193, of which 90 were in males, and 103 in females, equal to a general death rate of 13.9 per 1,000. This is fractionally higher than that of the preceding year, but nearly a point below the decennial average (14.8).

The deaths in the four quarters of the year were 52, 33, 47, and 61, giving rates per 1,000 per annum of 15.0, 9.5, 13.6, and 17.6 respectively; thus the last quarter shewed considerably the highest mortality, while December (22) and November (21) were the most fatal months. On the other hand, only 8 deaths were registered in June, and 11 in May.

# Comparative Table.

DEATHS FROM	1913	Average of years 1903-1912	1912	1911	1910	1909	1908
Small Pox	5 3 1 3	- 5 - 2 1 2 5	- - 1 - 2	- 15 1 - 1 3 8			19 - 5 1 5 4
TOTAL 7 CHIEF ZYMOTICS :	17	15	3	28	6	7	34
Phthisis Other Tubercular Diseases Respiratory Diseases Circulatory Diseases Cancer Violence All other Diseases Total deaths	16 7 29 35 14 6 69 193	13 5 24 24 14 6 96 197	7 6 19 26 20 8 95 184	14 6 29 23 16 7 108 231	12 1 30 25 9 4 87 174	9 1 16 21 17 10 99 180	13 4 28 22 11 7 94 213
Estimated Population  General Death Rate  Zymotic Death Rate  Total Births  Birth Rate  Deaths under 1 year  , between 1 and 5 years  over 65 years  Deaths under 1 yr. to 1000 births Deaths in Union House  Deaths in Union House belong-	82	14.8 1.13 294 22.1 30 14 74 102 79	13800 13·3 ·22 275 19·9 17 8 74 62 87	13712 16:8 2:0 250 18:2 31 27 79 124 72	13592 12·8 ·44 300 22·1 19 14 79 63 76	13473 13·4 ·52 298 22·1 29 3 78 97 72	13358 15.9 2.55 279 20.9 35 33 58 125 87
Average Age at Death	40.77	20 46·0	51·2	18 42·3	49.2	50.5	39.7
TRANSFERABLE DEATHS.  Deaths in County Asylum be- longing to District  Others Added  Deducted—not belonging to District	5	7 - 63	12 8 77	12 2 64	3 60	8 - 70	3 - 70
District	1.4	1 00	11	03	00	10	10

The percentage of deaths under one year to the total was 9.3; and of those over 65 years 35.2. The first of these figures is practically the same as in the previous year (9.2), while the latter shews some falling off in comparison (40.2). The average age at death was 48.7 years, as compared with 51.2 in 1912, and 42.3 in 1911.

The infantile mortality, or deaths under I year to 1,000 births was 72, somewhat above the low water mark of the preceding year, but nevertheless among the best recorded, notwithstanding the presence of measles and whooping cough. The decennial average of 102 is considerably higher.

The causes of infant mortality were:—whooping cough, 2; measles, 1; diarrhœa, 3; tubercular disease, 1; diseases of the nervous system, 1; of the respiratory system, 2; debility, 4; premature birth, 3; skin disease, 1. Thus premature birth and debility were responsible for nearly half the total mortality.

I have made the usual investigation into the deaths of these children, with results as follows; of the total 18 who died in the town, 15 (or 83 per cent.) belonged to the working classes, while in 13 cases (or 72 per cent.) the parents were earning under £1 a week, or in uncertain employment. In 7, or (omitting premature births) 47 per cent., the children were either wholly or partially brought up by hand—including the three who died from diarrhoea. There were 6 fatalities in the courts, which gives a rate of 10.9 per 1,000, as compared with 1.3 for the whole district. Sixteen deaths were in houses on the lower levels, and 10 in the older dwellings; in one case the cottage was damp, but otherwise no definite unsanitary conditions were found. Nine children were said to have been born delicate; these included two who died from diarrhœa.

In five instances, one or other parent was considered to have a weak constitution, and the mother of the child, whose death was due to tuberculosis, was affected with phthisis. Two were illegitimate, 8 were first born, including, in one case, twins.

Appended is a table, showing these figures in comparison with those of five previous years, together with the averages for the years 1903-12:—

	-in	1	or in		DE	ATHS	s F	ROM	1		
VEAR	aths exc	A House		fed	Dige:	stive tem	system	y	Birth	mate	House
YEAR	Total Infant deaths exclu- ding Union House	Working Classes	Under £1 a week or in uncertain employment	Hand fed	Total	Hand fed	Respiratory s	Debility	Premature	Illegitimate	I In Union
1908 1909 1910 1911 1912	34 29 18 31 16	26 26 17 29 14	21 17 10 18 12	17 10 7 17 8	4 5  8 2	3 4  6 1	10 3 5 2 5	6 5 7 2	3 7 3 5 5	3 1 3 3 1	4 1 3 3 2
Average for years1903-12	30	27	19	15	6	5	6	5	6	3	3
1913	18	15	13	7	3	3	1	4	3	2	1

Two hundred and sixty-eight births were registered in the district, but 17 being transferable, are deducted; this gives a nett total of 251, of which 117 were males and 134 females, equal to a rate of 18.1 per 1,000. This is the lowest yet recorded, and is 4 points under the decennial average of 22.1.

The births for the four quarters of the year numbered 52, 68, 68, and 63, giving rates per 1,000 per annum of 15.0, 19.6, 19.6, and 18.1 respectively.

The natural increase, or excess of births over deaths, taking into account those transferable, was 58, as compared with 91 in 1912 and 19 in 1911; this represents a gain of 4.2 per 1,000; the decennial average is 7.3.

In the Union House, which is situated in the district, with a population, including officers and inmates, of about 400, there were 82 deaths, of which 40 were in males and 42 in females.

### Chief causes of fatality were: --

```
Measles ... ...
                            3 deaths
Influenza
                             1
Constitutional Diseases ...
                                    (cancer, 7, phthisis, 7)
                            18
Diseases of the nervous system 10 ,, (apoplexy, 3)
       " " respiratory "
                            21 ,,
       " " circulatory "
                            17
       ", ", digestive
       ", " locomotive "
        " ., skin
                             I
Infantile debility ...
Old age ...
Accident
```

Forty-five were over 65 years of age, and the aver-

age age at death was 56.7 years.

Their local distribution was as follows: Newton Urban, 21; Newton Rural, 11; Dawlish, 4; Torquay, 40; Teignmouth, 2; Ashburton, 2; Exeter, 1; and Paignton, 1.

In the other public institutions in the district there were 17 deaths—13 in the Hospital, of which 11 were accredited to the Urban, and 1 to the Rural District, while the other was in a visitor; 4 in the Isolation Hospital, 3 being assignable to the Urban and 1 to the Rural District.

Taking into account the influence of measles and whooping cough, the figures for 1913 compare very favourably with those of former years. Though the mortality from these two diseases made a material addition, the general death rate was below the average, and the infant mortality under the circumstances an excellent figure. The zymotic rate was, however, somewhat high, increased by deaths from typhoid fever and diarrhœa; this was, perhaps, the most unsatisfactory item. The birth rate also still shows signs of diminishing, and seems to have permanently receded below the 20 per 1,000 mark, but comparisons with any year prior to 1911 are discounted to some extent, because transferable births were not previously deducted.

Turning to the chief causes of fatality, phthisis was responsible for 16 deaths—as compared with 7 in the previous year, and a mean of 13 for the years 1903-1912; that is equal to a rate of 1.2 per 1,000. There were 7 fatalities from other tubercular diseases, which is slightly

above the normal figure.

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

LOCAL GOVERNMENT BOARD TABLE III.

						-			-	1
Causes of Death.	Nett	nts" rict.	Total deaths whether of "Residents" or "non-Residents" in institutions in the District.							
	All ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards	Totaldeaths whet of "Residents" "non-Residents" institutions in District.
1	2	3	4	5	6	7	8	9	10	11
All Certified (c) causes Uncertified	191	17	11	5	4	7	21	58	68	99
Enteric Fever Measles	3 5	ï			1		1	1		3 3
Whooping Cough Diphtheria & Croup	5	2	3	1 1			 1	ï		
Influenza Phthisis (Pulmonary Tuberculosis)	7 16				1		9	5	1	8
Tuberculous Men- ingitis Other Tuberculous	3		1	1	1					
Diseases Cancer, malignant	4	1				1		2		6
disease Rheumatic Fever	14 3				ï	ï		7	7	1
Organic Heart Disease Bronchitis	33 16					1		11 4	21 11	17 17 2
Pneumonia (all forms Other diseases of Res	-	1	1	2			1	1	3	3
piratory Organs Diarrhœa & Enteriti Appendicitis and	8 3	3								
Typhlitis Nephritis & Bright's	1						2	3		2
Other accidents and diseases of pregnan-	5									
cy & parturition Congenital Debility & Malformation,							1			
including Pre- mature Birth Violent Deaths, ex-	8	7	1				*			2
eluding Suicide Suicide	5					1		1		3
Other Defined Diseases Diseases ill-defined	41	2	1			3	3	17	15	20
or unknown Poliomyelitis						- 8	21	 58	5 - 68	99
	193	18	11	0		0	41	00	1 00	1

On the other hand cancer, with 14 deaths, and a rate of 1.0, shewed a considerable drop; the combined rate from these two diseases was 2.2 per 1,000, slightly above the decennial average of 2.0.

The mortality from respiratory and heart diseases increased considerably, both as compared with 1912 and with the mean for the preceding ten years, while that from violence remained at about the normal figure.

The mortality at different age periods differed somewhat from the preceding year; deaths under 5 years numbered 34, as against 25, while those over 65 were less in proportion—68, as compared with 74. The average age at death was, therefore, lower, 48.7 years (51.2 in 1912).

ZYMOTIC DISEASES.—From the seven ordinary zymotic diseases 17 deaths were registered—measles and whooping cough, 5 each; typhoid fever and diarrhœa, 3 each; and diphtheria, 1; this gives a rate of 1.23 per 1,000, as compared with a decennial average of 1.13.

Notifications of infectious disease were 98 in number, as against 53 in 1912, and 131 in 1911. They included 13 scarlatina, 24 diphtheria, 7 typhoid fever, 1 erysipelas, 2 ophthalmia neonadtorum, and 51 from tubercular diseases, of which 35 were due to phthisis. The following table shews the monthly incidence:—

DISEASE.	January	February	March	April	May	June	July	August	September	October	November	December	Total
Small Pox Scarlatina Diphtheria Typhoid Fever Puerperal Fev'r Erysipelas Ophthalmia		- 3 - -	2 -	_ _ _ _	- 2	- 1 - - -			- 1 - 3 - -	1 4 1 -	- 4 6 3 - 1	-4 5 	13 24 7 1
Neonatorum Tuberculosis		7	11		4	6	4		2		3	2 2	2 51
Total	5	10	13	3	6	7	4	6	6	8	17	13	98

MEASLES was prevalent among children in the town during the summer months, resulting in five fatalities. The Marsh School and surroundings was first affected in the early part of June, and the attendance at this infant school went down at one time to about 40 per The British School, which is in the same neighbourhood, was soon invaded, although the infant department in this is only a small one. Towards the end of July the Highweek infant school, which is attended by most of the young children at the higher end of the town, about the same also suffered, and the disease time made its appearance in the Decoy suburb, but this school was not affected to so great holiday then intervened, summer The and by the time the schools re-opened in September, the outbreak had come to an end. I did not think it necessary to close any of the schools, partly because the season was a favourable one, and in the latter schools the holiday was close at hand. I visited a number of the cases, and cards of simple instructions were given to the head teachers for distribution among the children. During the epidemic the following classes of children were excluded from school attendance.

(1). All infected children for one month from date of

visit.

(2). Those living in infected houses, if belonging to infant departments, or from the senior, if they had not previously had the disease.

(3). All under five years old.

The last outbreak was in the winter of 1910-1911,

when there were 15 deaths.

WHOOPING COUGH was also prevalent, to a more prolonged extent during about six months in various parts of the town, resulting in five deaths, of which 2 were registered in the first quarter, I in the second, and 2 in the third-all in children under 2 years.

The senior departments of the schools were as usual little affected by these diseases, although a few cases

occurred in them.

SCARLATINA was responsible for 13 notifications, as compared with 17 in the previous year. Of these 6 were isolated attacks, separated by considerable intervals in January, April, June, September, October, November; in two instances the patients had visited localities outside the district, where the disease was prevalent at the time. In the last week of November, three cases occurred, two of which I found in one house when making investigations into diphtheria contacts; a boy was peeling slightly, and a younger child in the first stage of the illness. Two of these attended the same

school, but no further attacks occurred there. A month later, before the return of these patients from hospital, another child in the same row of cottages was attacked; I could not, however, discover any connecting link. remaining three were in young adults, without any obvious interassociation; these occurred in the latter part of December. The type of disease was mild, and there were no fatalities.

Of the above I was under 5 years, 10 between 5 and 15 years, and 2 between 15 and 25 years. Nine were removed to hospital, the others being efficiently isolated at home. There was only one instance of multiple attacks in the same family.

DIPHTHERIA.—Twenty-four cases were reported as compared with 12 in the previous year. Of these 7 occurred in the early part of the year; three were interassociated, two of them being in children attending the Marsh School, though in different rooms, and the third, a brother of one of them; two others were mother and

child, in another part of the town.

Towards the end of May two attacks were reported in children, but as far as I could ascertain unconnected; no further cases occurred till the beginning of October, when a boy in the Bradley View Cottage Home contracted the disease; there are 10 boys in this Home, and it was stated that one or two others had had sore throats shortly before this. I took swabs from the other nine, and one of these was returned as being infectious; both these children went to hospital, and a few days later I again took swabs from the remaining children, but without result. This home has since remained free from infection.

The chief incident however during the year was an outbreak in the Brookhill Central Cottage Home, which eventually involved the Home in Wolborough Street. This resulted in several somewhat severe attacks, and in nearly all the children in these two homes being infected. At the time there were 25 children at Brookhill-7 boys and 18 girls-and 12 at 65, Wolborough Street-all girls. It may be said in my experience that the disease spreads more readily among girls, because they enter into closer companionship with each other than boys do; it is, therefore, less easy to control when it appears in such institutions. The children were of various ages, from 3 to 15, and nearly all were attending school. There were alse at Brookhill the Master, Matron, and two other Officers; and the foster mother at Wolborough Street.

At the end of October a child of 12 (at Brookhill) developed a somewhat severe attack, and on making an examination of the other children in the Home I found another of the elder girls in the early stage of the disease, but with a definite membrane; these two were at once removed to hospital. Swabs were then taken from the rest, and two were found to be infected; one of these had been admitted about a fortnight previously from a neighbouring town, where the disease had for some months been in evidence, and this child was from the first in a somewhat ailing condition, although not definitely ill. By this time—the first week in November—several other children were poorly, and two or three developed swollen tonsils and sore throats; these were isolated as far as possible in the sick room for the time being.

Seeing that there was no means of separating the children while awaiting the result of the swabs—which means from 36 to 48 hours, and that others might be infected in the interval, I continued to make bacteriological examinations of the whole, as long as any were returned as being infectious. On November 8th four more were found in this condition, and in turn went to hospital; these were merely "carrier" cases whose throats were generally somewhat congested, but without other clinical symptoms. By this time, however, two of the officers—adults—contracted the disease in a severe form, and the Matron became infected, as a "carrier"; the latter was isolated in her room for a fortnight.

As the result of investigations at the Highweek Girls' School, attended by the first Brookhill patient, on November 12th I found one of the Wolborough Home children with a slight sore throat—bacteriologically diphtheria. I then took swabs of the other eleven children in this home, most of whom attended the same school, and found six more were infected, but practically without clinical symptoms. To avoid crowding the hospital with these, at my suggestion all who were merely "carriers" from both homes were collected at Wolborough Street, while the healthy were sent to Brookhill; those, however, actually ill, and in need of nursing, also others who remained "positive" for any length of time, and, therefore, required more active treatment, were sent to hospital. I continued to take swabs from the children at both Homes, at intervals of two or three days at Brookhill, from those hitherto healthy, and every week from

the infected children at Wolborough Street. This process went on till December 11th; only four remained throughout normal; all the others (in both Homes) at one time or other became infected. As the children became free (two negative swabs being obtained, taken at a few days interval) they went to the Central Home-either from the Hospital or Wolborough Street-and on January 8th of this year, only one child remained at the latter Home; this girl had been "positive" for some weeks, and was then sent to Hospital. A swab taken from the Foster Mother was also positive, and she was isolated in her room for three weeks. There were three cats in this Home, in somewhat intimate association with the children, and a bacteriological examination of these proved that two of them were infected; all were destroyed; on the other hand, the cat at Brookhill, which came very seldom into the house, escaped.

Practically every type of the disease was represented, from mere presence of the bacilli to severe illness, though there were no fatalities; but even those who were to all appearance merely carrier cases generally became anæmic, and two of them had slight heart attacks. Several had congested throats, which assumed a redbrick colour. In three instances a somewhat smart attack with membrane, developed at a considerable interval after a "positive" result had first been obtained; in one case six weeks elapsed, in another nearly three, and the third ten days; these children in the meantime being to all appearance in very fair health. Only one or two had any nasal trouble.

The length of time during which infection persisted varied very considerably—from 10 to 110 days—with an average of about 30; eleven were under 20 days, and 10 over 30; one was 91, and another 110.

Four girls at Brookhill remained immune throughout; two of them had severe attacks about three years previously. On the other hand, one of those affected was known to have had the disease before.

On the advice of Dr. Adkins, County M.O.H., the Homes were considered to be in quarantine, and the children excluded from school for three weeks after the last patient returned from hospital (with the exception of one very prolonged case). The Brookhill Home was again opened in the beginning of February of the present year, and the children returned to school.

Ten days later, however, two children were admitted from the same infected locality, and after the experience of last year, I took swabs from them on admission, found that both were "carriers," and had them removed to hospital; this again put the Home into quarantine. After a fortnight's interval, I made further bacteriological examination of all children attending school, including seven recent admissions. One was reported "positive"; this child had been a "carrier" case in the previous November, and two negative swabs were subsequently obtained, but it is possible that both may have missed the germ. She was, however, also sent to hospital.

All the rooms in both Homes were disinfected with the Lingner apparatus, and bedding and clothing dealt with in the usual way; the kitchens and offices have been limewashed.

This experience has emphasized the need of a receiving ward, where children admitted may be retained for a time before mixing with the others. All are examined by the Medical Officer of the Homes on admission, but it is impossible in this way alone to eliminate the chance of infection, which may be communicated to others by the time disease is apparent.

The Guardians have this under active consideration; two or three schemes have been discussed, but a decision has not yet been arrived at. In the meantime all fresh admissions will be taken into the receiving ward at the Union House, and swabs obtained before they go to the Homes.

When the first case was reported at Brookhill, I made enquiries at the school which this child attended, and kept a watch for sore throats, and also on absentees; in the course of this several swabs of suspicious children and contacts were sent up for examination; two of these were reported "positive"—both in different classes; one remained infectious for nearly three months, although the initial illness was a slight sore throat.

Another girl, who sat near, developed a pronounced attack, wnic.. was treated in hospital.

As far as the Highweek Girls' School was concerned there was no further outbreak, except that one adult case probably originated there, in that a younger sister—then at the school—was found to be a "carrier." There were three other attacks in the town during this time of the year; one was in a young adult, working outside the district, the other two in children, attending different schools, and apparently without inter-association; but notwithstanding such a number of the children in the Homes were affected, there have been no further cases elsewhere in the District since the beginning of December, 1913, up to the present time (March 16th).

Of the above 24 cases (excluding "carriers") one was under 5 years; 17 between 5 and 15 years; 1 between 15 and 25 years; and 5 over the latter age. There was one fatality in a young child, and all except this patient, who was too ill to be moved, were treated in hospital.

The County Council undertakes the examination of swabs; which are taken from all children in the infected houses, or other definite contacts. I sent up in all 247 during the year, 187 of which were from children in the Scattered Homes.

TYPHOID FEVER.—Seven cases were reported, with three deaths—rather more than late years have furnished, with a somewhat heavy case mortality. Of these three were notified about the middle of September; two were father and son, and there was a history of eating shellfish from polluted waters. The illness was not quite simultaneous, but an interval of about a week elapsed. In the case of the elder man the disease was severe, and eventually fatal, while the boy was but little affected, and quickly recovered. The third—in a young adult—was not due to any obvious cause. About three weeks later a further attack took place—also in an adult; this case was associated with defective drainage.

The remaining three cases were notified about the middle of November; two were in adults, and one in a child of 13. There was no apparent connection between them, though two were living within a few doors of each other; of these two were severe, and had a fatal termination. The cause of disease was in all obscure.

Of these seven, six were removed to hospital, while the other—a mild one—was treated in the Union Infirmary.

Two were between 5 and 15 years; one between 15 and 25 years; three between 25 and 45 years; and one over the latter age.

PHTHISIS caused 16 fatalities, as compared with 7 in 1912; of these I was between 5 and 15 years, 9 between 25 and 45 years, 5 between 45 and 65 years, and

I over the latter age.

Thirty-five cases were notified during the year; of these eleven were in the Union House Infirmary, admitted from places outside the District. Five of the remainder were visitors; two of these died, and the others have since left the town; while nine residents died before the end of the year.

Out of 24 cases (omitting those in the Union House) severe illness was said to be the starting point in eight instances (influenza, 4; pleurisy, 2; confinement, 1; diarrhœa, I. Occupations were various, but only three were at all exposed to weather; two were school children.

In no case were there any pronounced insanitary conditions, though in two instances overcrowding was present; these have both been abated-in one case the

family has left the district.

In eleven cases it was stated that there was a bad family history in this respect; in one family two of the children were reported as suffering from other tubercular conditions: in another-an adult woman-the husband There were also two instances of a was also affected. parent and child being in the same house.

On the whole the general conditions of the patients were good, and 17 had separate bedrooms, while 5 others had one other occupant of the room-nearly all married

Seven are having Sanatorium treatment, either at

Newton, Didworthy or Exeter.

Of the above, 3 were between 5 and 15 years; 3 between 15 and 25 years; 19 between 25 and 45 years; 9 between 45 and 65 years; and I over the latter age.

Sixteen cases of other tubercular diseases were reported; six of these were in the Union House Infirmary (not belonging to the district), while another was a visitor, who has since left the town. Of the remainder, 4

died before the end of the year.

In 3 instances the spine was affected: meninges, 2; glands of the neck, 2; knee, 2; intestines, larynx, pleura, ribs (resulting from an accident), hip joint, and skin, I each; while in one the disease was general. Four were under 5 years; 3 between 5 and 15 years; 3 between 15 and 25 years; 3 between 25 and 45 years; and 3 between 45 and 65 years.

Spitting flasks and disinfectant are supplied by the Authority, and a card of simple instructions provided. After death or removal, disinfection of room and bedding is carried out by the Sanitary Inspector.

I go to all cases personally, and make enquiries as to the general condition and sanitation of the dwelling; I also visit those previously notified, and keep myself in-

formed, as far as possible, as to their movements.

They are also seen by the Tuberculosis Officer appointed by the County Council, who examines other members of the family, and decides the question of Sanatorium or other treatment. Arrangements as to these matters are in the hands of the County Council; the Sanatorium at Hawkmoor is hardly as yet in full working order, though a certain number of patients can now be taken there. Others are sent to Didworthy and Ivybank (Exeter), while a few can be accommodated at the Newton Isolation Hospital.

ERYSIPELAS.—Only one notification was received. There was no fatality.

DIARRHŒA was not much in evidence, in the absence of prolonged high temperature in the summer months, and the three deaths which occurred were distributed over three months (September to November). Visits were, however, made in the more congested areas, and cards of instruction sent round; disinfectants were also supplied.

OPHTHALMIA NEONATORUM was made notifiable in the latter part of the year; two cases have been reported. Arrangements are made for visits to be paid by the Midwife Inspector of the County Council.

The ISOLATION HOSPITAL is situated on the Totnes Road, about a mile from the town. At present 16 parishes are associated with the Hospital Combination, viz.: Wolborough and Highweek (Newton Urban District), Abbotskerswell, Bishopsteignton, Bovey Tracey, Chudleigh, Cockington, Coffinswell and Daccombe, Coombe and Haccombe, Denbury and Torbryan, Hennock, Ipplepen, Kingskerswell, Kingsteignton, Ogwell, and Teigngrace. These have in all a population of 26,643.

On April 1st of the present year, eight additional parishes in the Rural District will also be included: these have a population of 3,112, making a total of 29,755.

In the typhoid wards there is accommodation for four adults, allowing each 2,400 cubic feet, while the iron building contains eight beds, with somewhat less space; these are used for scarlatina patients. The diphtheria block, which is divided into four small wards, affords six beds, besides cots. Altogether, with cots, there are about 26 beds.

Early in the year, the two cottages which are also on the grounds, were again taken into use, and provided additional accommodation-much needed under the pressure of a scarlet fever outbreak in parts of the district. Later on these cottages have been used for tuberculosis patients by an arrangement with the County Council. With the prospect, however, of a larger population to be provided for, it is doubtful if they can be permanently used for this purpose, unless the main buildings are augmented.

These cottages afford room for seven patients.

There is an administrative block; also a steam disinfector, mortuary, and laundry.

The institution is connected with the Telephone

Exchange, No. 70.

During the past year, 120 cases were treated, viz., 81 scarlatina, 9 of which were from the Urban, and 72 from the Rural District; 32 diphtheria (23 Urban and 9 Rural); 6 typhoid fever (Urban); and I poliomyelitis (Rural). Besides these 12 carrier cases of diphtheria from the Cottage Homes were isolated till free from infection.

There were 4 fatalities-3 typhoid fever (Urban),

and I poliomyelitis (Rural).

DISINFECTION.—All notified cases are visited by myself and the Sanitary Inspector; printed cards of

instruction are given and disinfectant supplied.

Houses are disinfected by the Authority and limewashed where necessary: clothes and bedding are dealt with by the steam disinfector at the Hospital. The Linguer apparatus for the aërial disinfection of rooms is in use.

HOSPITAL ACCOMMODATION FOR GENERAL DISEASES.-This Hospital contains two large wards-male and female-with 12 beds in each; there is also a children's ward with eight cots. There are besides two special and three private wards; in all there are about 35 beds. The institution takes patients from

Newton Abbot and the surrounding Rural District; 405 in-patients were treated during the year. There is a dispensary attached, where out-patients are attended to once a week.

MIDWIVES' ACT is administered wholly by the County Council; a special Nurse Inspector has been appointed by that body.

SALE OF FOODS AND DRUGS ACT (including milk) is administered by the police. The number of samples taken in the Newton Urban and Rural Districts is given on page 29. I have no evidence that the food supplied is otherwise than wholesome.

NOTIFICATION OF BIRTHS ACT has not been adopted.

LIST OF ADOPTIVE ACTS & REGULATIONS IN FORCE IN THE DISTRICT.

Public Health Amendment Act, 1890. Infectious Diseases Prevention Act, 1890. Public Health Amendment Act, 1907.

Building Bye-laws under the Local Government Act, 1858.

Regulations for Common Lodging Houses.

Regulations for Slaughterhouses (Local Government Act, 1885).

Bye-Laws for Prevention of Nuisances arising from snow, filth, dust, ashes, and rubbish, and the keeping of animals.

Bye-Laws with regard to:

(a) The cleaning of footways and pavements.

(b) Removal of refuse from premises. (c) Cleansing of privies, ashpits and cesspools.

(Where the Authority do not themselves undertake this). Bye-Laws for Pleasure Grounds.

Regulations under the Dairies, &c., Order of 1899.

# SANITARY CONDITIONS AND PROCEDURE.

WATER SUPPLY is that of Torquay, and is good and abundant. The gathering ground, which is entirely uncultivated land, is at Hennock, about nine miles from the town, at an elevation of 800 to 900 feet above sea level. The water is passed through Candy's filters before being delivered to the home reservoir on Wolborough Hill.

There are a few wells in the outlying parts of the district, also two or three springs which have their origin on Wolborough Hill; these are of very fair quality.

Six cottages at Aller, and a group of dwellings (two villas and 10 cottages at Mile End, Highweek), also depend on wells. The supply to the latter was most unsatisfactory during the past summer, and the three wells which supply the long row of cottages were almost dry for several weeks. The Council have had this under consideration for some time past, and the owners of the houses in question were called on to provide a proper supply. The position is a difficult one, because the Newton Urban District Council do not own the waterworks, have no control over them, and are, therefore, unable to extend the main—a distance of about 400 yards—themselves. It is, however, important that these dwellings should have a proper supply, not only for drinking and washing, but also for the flushing of closets.

The well at Aller held out fairly well, and I had no

complaints of shortage there.

LEAD.—No suspected case of poisoning by this means has come under my notice: though the public supply is a soft upland surface water, the silica it contains—derived from the granite—is said to give a protective covering to the pipes.

SEWERAGE.—Water closets are general and practically all in the town are flushed; nearly every dwelling has a separate closet, but it is impossible to give

the number exactly.

The trunk sewers are of masonry, but the branches, which form the most considerable part, are all modern, or fairly so, and piped. All in the town are brought to one outfall in the marshes, where there are settling tanks, the effluent from which discharges into tidal waters. As far as I know there is no pollution of the Lemon by sewage, though some storm water overflows are connected with it.

There are three or four short sewers in the village of Highweek, which irrigate meadow land: the outfalls are managed by the Authority, and are attended to monthly. Several of the villas on Knowles Hill, and a few at Highweek, drain into cesspits.

The only earth closets which exist are in the rural part of the district, where there is no public water supply, or sewerage accommodation: they are nearly all pail privies.

The sewer serving a number of houses in Albert Road became silted up in the summer, and was re-laid with a better fall.

SCAVENGING.—House refuse is removed three times a week in the more densely populated parts of the town, and twice in the outskirts; the work is done by the Council's employees. The depot for this is at the sewage outfall works, and is some distance from any houses. I have had no complaints during the year.

DAIRIES, COWSHEDS, AND MILKSHOPS.— There are on the register 29 milk sellers; 19 are cowkeepers, while the remainder get their milk from dairymen, either in the town or the Newton Rural District, who are also under supervision. They control about 220 cows, and the numbers vary from 4 to 30.

Twenty-five have the public water supply on the premises; three depend on springs, and one on a well.

The Model Regulations of 1899 under the Dairies, etc., Order are in force: every milk seller is supplied with a copy printed on a stout card, which is hung up in the dairy. The shippens have been found generally well kept, and limewashing regularly attended to; there are, however, a few buildings of the old type, both in the town, and also in the outlying parts of the district.

There are no cowsheds in which the animals are kept indoors all the year, so that Part II. of the Regulations does not apply to this district.

No veterinary Inspectors are employed, and I have no knowledge of the existence of any tubercular cattle: one was, however, reported to the police and destroyed. Samples of milk are taken from time to time by the police.

The premises are systematically visited by Mr. Judd and myself twice a year; chance visits are also paid on other occasions.

SLAUGHTERHOUSES.—There are only two registered slaughterhouses in the district, which are visited by Mr. Judd and myself from time to time. I have had no complaints regarding these, and have found them kept in order on my visits.

Much of the meat sold in Newton is brought in from the surrounding Rural District; no further progress has

been made in the direction of a public abattoir.

Towards the end of the year a forequarter of beef exposed for sale in the Market was condemned, and the owner prosecuted, convicted, and a fine of £10 (including costs) imposed.

Other articles of food condemned included a barrel oi fruit, a quantity of mushrooms, a diseased tongue, two

diseased livers, and two rabbits.

HOUSING OF THE WORKING CLASSES .-With the exception of two large institutions, the new Secondary Schools, and the Seale-Hayne Agricultural College, which employ a number of men, building has been practically inactive during the past year.

The field between Prospect and Fairfield Terraces has, however, been opened up; this and Hillman's Meadow are the only sites on which artizan's dwellings are

now in progress.

Ten habitation certificates were granted, as compared with 34 in 1912, of which 5 were for small houses.

Plans passed were almost wholly for alterations and

additions to existing dwellings and shops.

Rents vary from 2s. 3d. and 3s. 3d. in the Courts for the oldest type of houses (two and three rooms), 4s. and 4s. 9d. for four-roomed cottages of an intermediate date to 5s. and 6s. for the newest houses.

In June I reported that seven houses in a Court off Highweek Street were in my opinion unfit for habitation from want of light and air, want of through ventilation in six of them, the other two being submerged at the back, smallness of rooms, and in some of them dampness of walls. Since then some minor repairs have been carried out by the owner, but structurally they remain the same.

At that time they contained 13 adults and 11 children. Two of them have very small backhouses; otherwise only one room downstairs, in which washing is done and food kept. This was considered by the Council, but the difficulty is to re-house such tenants at the rent which they can afford to pay; on the other hand the town is mostly of modern construction, and does not contain many dwellings which on present standards are structurally unfit for occupation, although the various Courts contain some which are near the margin.

HOUSE TO HOUSE INSPECTION is being carried out by Mr. Judd, the officer appointed by the Council to do this work; 215 houses were visited, chiefly in the lower part of the town, at the back of Queen Street, and the Avenue.

Number of houses inspected ... ... ... ... ... ... 215

Number of houses so dangerous or injurious to health as to be unfit for occupation ... ... 7

Representations made to the Authority, with a view

General character of defects was in respect to repairing closets, paving of yards, covering of water cisterns, and providing taps on main, re-laying drains, improvement of ventilation, and abatement of dampness, besides other minor repairs.

One case of overcrowding was met with; this has

since been abated.

SCHOOL ACCOMMODATION and SANITA-TION.—There are ten elementary schools in the district, three in the parish of Highweek and seven in Wolborough. The total accommodation is about 2,065, and the average attendance about 1,800.

The British School is now used for girls and infants only; the boys have been transferred to the Highweek Boys' School. There is hardly sufficient accommodation for infants at the higher or Wolborough Street

end of the town.

All the schools in the district have the public water supply for drinking and flushing purposes on the premises.

The Decoy and Highweek Boys' Schools are, constructively, modern in all respects; the others are more or less behind, especially as regards heating and ventilation, though the Marsh School is now heated with radiators.

Floors are scrubbed monthly and swept with damp sawdust daily in all except the Catholic School; in this instance scrubbing is only done four times a year.

Medical Inspection of the children is made by an Officer appointed by the County Council, who reports to Dr. Adkins, County M.O.H. About a quarter of the scholars were examined during the year, with the following results: -In all 509 (269 boys and 240 girls) were dealt with, and 221 (114 boys and 107 girls) pronounced defective-43 per cent., as compared with 55 in 1913 and 73 in 1912. The proportion of healthy children was very slightly greater among the boys-about 2 per cent. only. Fifty boys and 31 girls were below normal height, while 53 boys and 37 girls were below normal weight; thus in in both respects the girls again had a distinct advantage. Under those headings the Decoy and Highweek Infant Schools shewed a clean sheet, and the Marsn Infants very nearly so. Diseased heads were reported in 42 instances, but out of this number only one was in a boy; none were "unclean in body," while only one had skin disease.

Defective teeth were found in 50 cases—26 boys and 24 girls—about the same proportion as in the previous year.

Of actual disease, enlarged tonsils (64); adenoids (4); and diseased glands (8) formed a considerable group, but to a much smaller degree than in 1912, when the figures were 81, 10, and 106 respectively; 24 suffered from defective vision—about 5 per cent.—while 8 had external eye disease. Ten were deficient in hearing, while in 6 ear disease was reported; speech was normal in all.

The more serious constitutional lesions were represented by heart disease, 5; lung disease, 20; nervous disease, 1; rickets, 1; mental deficiency, 3; and deformities, 5.

Evidence of extreme poverty was practically absent; none were insufficiently clothed, and only 2 badly nourished.

Out of 509 children, 407—or 80 per cent.—were reported to be vaccinated; this is somewhat below the figure of the previous year—92.

Forty-one children were absent from inspection.

COMMON LODGING HOUSES.—There are two of these in the town, whose proprietors have been licensed by the Council under the Bye-laws; they are frequently visited by the Sanitary Inspector and myself, and have been found clean and well kept. Printed cards are put up in every room, giving the number of persons who may be legally accommodated.

BUILDING BYE-LAWS are those made by the Wolborough Local Board under the Local Government Act of 1858.

The Model Bye-Laws will, however, shortly be adopted, and these are now awaiting the approval of the Local Government Board with respect to a few alterations suitable to the special needs of the town.

# Report of Mr. C. D. White, Surveyor.

Report of the Sanitary Work carried out in connection with the Sewers of the district, and of the plans for new houses and additions, for the year ending 31st December, 1913:-

## SEWERS RE-LAID.

ALBERT ROAD.-Nos. 1 to 19, 152ft. of 9in. and 8in. stoneware socketted pipes.

### DRAINS RELAID.

THE AVENUE.-Nos. 37 to 53, 192ft. of 6in. and. 4in. stoneware socketted pipes.

## PLANS APPROVED BY MY COUNCIL IN THE YEAR 1913:-

- I Seale-Hayne College Extension.
- 10 Sheds.
- 2 Stables.
- I Studio.
- 3 Additions to Institutes.
- I Addition to Hospital.
- I Smithy.
- 6 Garage.
- I Summer House.
- 6 Greenhouse.
- 2 Lock-up Shops.
- I Liberal Club.
- 2 Conservatory.
- 3 Bay Windows.
  - 2 Alterations to interior of houses.
  - 2 Bath Rooms.
  - I Coachhouse.
  - 8 Additions to Shops.
  - I Shop.
  - I Addition to School.
  - I Coalhouse.
  - I Electric Theatre.
  - I Bungalow.

54 Sets of Plans in all.

10 Habitation Certificates have been granted-5 for small houses, 5 for medium size houses.

### COLERIDGE D WHITE,

Surveyor.

24th January, 1914.

# Report of Mr. H. Judd, Sanitary Inspector.

To the Chairman and Members of the Newton Abbot Urban District Council.

Gentlemen,-

I beg to submit my report for the year ending

December 31st, 1913:-

During the year 742 properties were inspected when it was found necessary to serve 241 notices for the abatement of nuisances discovered, 237 of which have already received attention.

A record of the improvements effected will be found

in the summary at the end of the report.

## HOUSE TO HOUSE INSPECTIONS.

The number of houses inspected this year under the Housing and Town Planning Act, 1909, is 215. Over 54 per cent of these have 5 rooms; 38 per cent. have 4 rooms; and 7.5 per cent. 3 rooms (exclusive of sculleries). The weekly rents of these cottages average a fraction over one shilling per room.

Most of the cottages were found in fair or good condition, but many required repairing—some to a con-

siderable extent.

The drains and yard paving in a block of 11 cottages were found so bad that an entirely new system of drainage had to be laid, and all the yards concreted.

The Council's sewer at the rear of the cottages was also found very faulty, and, therefore, had to be relaid.

Every cottage, except two, has a separate closet, and

all have flushing cisterns.

The town water is laid on to every house. In a block of 32 cottages it was found that the drinking water cisterns were placed under the bedroom floors and uncovered. In most cases the drinking water was drawn direct from these cisterns, there being no main taps. Your Sanitary Committee considered this dangerous to health, and directed me to call upon the owners to provide a main tap to every house, and to cover the tanks. This has been done.

Only one case of overcrowding was met with, and this was abated.

Figures relating to the above inspection are given below:

Streets.	Houses	Notices	Notices Abated.	Drains Relaid or Repaired.	Closets Repaired	Yards Paved or Repaired	Houses Cleaned	Houses Repair d.	Dampness Abated	Ventilation In.proved	Main Water Taps Provided	Water Cisterns Covered.	Rain Pipes Discon-
Oak Place The Grove Summerland Cottages Summerland Street School Road Bearne's Lane Victoria Road Albany Street Gladstone Place Netley Terrace Lemon Road Lemon Place Albert Terrace	12 15 5 9 12 4 32 13 27 32 24 6 24	5 11 3 5 7 - 14 5 6 32 13 - 18	5 11 3 5 7 14 5 6 32 13 -18	- - - - - - - - 2 - 11	4 1 1 - 5 1 - 5 1 - - 5 1 1	-4 	- - - - - - - 3 - 2 - -	2 - - 7 3 4 3 4 - -	1 - 2 - 1 - 3 - - - - - - - - - - - - -	2 5 - - - - - - - - - - - - - - - - - -	18	32 1	- 5 7 - 1 - 1 9
Total	215	119	119	13	28	28	6	. 27	7	12	18	33	22

#### NEW BUILDINGS.

The drainage and sanitary arrangements of the following were passed and certified to the Surveyor, as satisfactory:—Cottages, 6; small villas, 4; and one electric theatre, making a total of 11, as against 36 for 1912.

### COMMON LODGING HOUSES.

There are two common lodging houses in the town, with a total accommodation for 62 lodgers. They are periodically inspected by the Medical Officer of Health and myself, but we found nothing to complain about with their management this year.

### SLAUGHTERHOUSES.

There are two registered slaughter houses in the district, situated in close proximity to dwellings. In only one of these are bullocks slaughtered, and as the place is used by several butchers it requires constant supervision in order to ensure cleanliness.

A case of slaughtering on unlicensed premises was reported. Your Council decided to warn the offender.

#### UNSOUND FOOD.

The following articles were condemned as unfit for food:—A barrel of pears; two rabbits; 168lbs. of mushrooms; a diseased tongue (bullock's); two diseased livers;

and a tuberculous fore quarter of beef.

The latter was found exposed for sale in the Market, a part of it having been sold. Your Council decided to prosecute the butcher for exposing for sale and selling diseased meat, which resulted in the defendant being fined £10, including costs.

#### FACTORIES AND WORKSHOPS.

The number of workshops on the register this year is 80, compared with 79 last year. These have been in-

spected by the Medical Officer and myself.

Notices for the following were served, four of which were received from the Factory Inspector:—Limewashing, 6; choked drain, 1; defective paving, 1; insufficient closet accommodation at factories, 2; insufficient ventilation, 1.

Only one of these remained uncomplied with at the

end of the year.

A list of the workshops on the register is given below: —

Brushmakers	 I	Marble Masons	 3
Bootmakers	 2	Milliners	 6
Basketmakers	 2	Refreshment Rooms	 I
Bakers	 17	Saddlers	 2
Cabinet Makers	 I	Smiths	 3
Coachbuilders	 2	Tailors	 8
Coopers	 I	Tin Smiths	 2
Cycle Repairers	 2	Upholsterers	 I
Dressmakers	 16	Umbrella and	
Dyers	 I	Trunk Makers	 I
Laundries	 8		

### DAIRIES, COWSHEDS, and MILKSHOPS.

The number of registered cowkeepers or purveyors of milk in the district is 31, compared with 30 in 1912.

The Medical Officer of Health and myself visit all dairies and cowsheds at least twice in every year, the total inspections this year being 84.

Where necessary notices for limewashing and cleaning were served, and these were all promptly complied

with.

One new dairy was registered this year.

# SUMMARY.

Drains relaid or repaired		60
Drains of new buildings certified		II
Drains cleared		15
Soil and vent pipes fixed or repaired		19
Defective shuting removed or repaired		35
Closets repaired		17
Closet flush cisterns renewed or repaired		8
Hand flushed closets provided with cistern	ns	3
New W.C.'s built		5
Courtyards paved or repaired		26
Town water laid on to premises		I
Main taps provided		20
Houses inspected	***	753
Houses cleaned		17
Houses repaired		45
Dampness abated		25
Stables paved and drained		2
Offensive accumulations removed		18
Overcrowding abated		7
Rooms fumigated		41
Articles steam disinfected		471
Drain tests applied		252
Drain tests applied by request	***	15
Visits made		1,547
Visits made to slaughterhouses		124
Visits made to Dairies and Cowsheds		84
Visits made to Factories and Workshops		97
Visits made to Common Lodging House	s	10
Informal notices served		241
Informal notices complied with		237
Formal notices served		22
Formal notices complied with		22

H. JUDD,

Sanitary Inspector.

#### III. DAWLISH URBAN.

PHYSICAL CHARACTERS.—The town is situated on the floor and slopes of a picturesque ravine, running from Haldon in an easterly direction to the sea, and is markedly isolated by the surrounding hills. The central part of the valley is occupied by extensive gardens, adding considerably to the attractions of the town; through these runs the stream known as Dawlish water. The hills vary from cliffs overhanging the sea, with a height of 150-200 feet, up to 800 feet on the summit of Haldon. The district, which has a total area of 1,500 acres, includes the residential village of Holcombe, pleasantly situated on the cliffs about 1½ miles to the south.

The geological formation is red breccia or sandstone.

OCCUPATION.—There are no special industries with the exception of a brewery, but employment is largely provided in catering for the visitors who frequent the town in increasing numbers; with these sea bathing and boating are favourite amusements, and for both Dawlish affords excellent and safe facilities; there are, therefore, many lodging houses, besides several hotels of good standing. On the encircling hills are many villa residences; these are continually increasing in number, and the neighbourhood is a most attractive one, both in scenery and climate.

RATEABLE VALUE:—On agricultural land,

£2,108; on buildings, £22,395; total, £24,503.

Balance of loans outstanding, £8,628 6s. 11d., of which £503 15s. is on account of water supply, and £4,367 10s. for sewerage.

Outdoor relief in 1913, £249 14s. 9d.

SANITARY ADMINISTRATION.—Mr. C. S. F. Churchward holds the offices of both Surveyor and Sanitary Inspector. He has the supervision of the water supply and sewerage system, new buildings and drainage work. He also carries out disinfection of premises, and arranges the removal of patients to the Isolation Hospital. He is a whole-time officer.

POPULATION at the census of 1911 was 4,099, and the number of inhabited houses 1,066—or 3.8 persons per house. For the purpose of calculating the death and birth rates, etc., for 1913, I have made no alteration in

these figures.

VITAL STATISTICS.—The number of deaths registered in the district was 48, but to these must be added 4 which took place in the Union House, I in the County Asylum, and 2 others "transferable." Six, which occurred in visitors, are deducted, and this gives a net total of 49—29 males and 20 females—equal to a general rate of 12.0 per 1,000. This is all but the best yet recorded (11.5 in 1906), and is more than three points below the decennial average of 15.5.

The deaths in the four quarters of the year numbered 17, 13, 11, and 8, giving rates per 1,000 per annum of 16.6, 12.7, 10.7, and 7.8 respectively. Thus the first quarter shewed considerably the highest mortality, while March (8), and April (7) were the most fatal months. On the other hand, only 1 death was registered in November, and

2 in July.

The percentage of deaths under I year to the total was 6.1, and of those over 65 years, 57.1. Both these figures shew much improvement as compared with the previous year (12.1 and 40.9 respectively). The average age at death was 54.0 years, somewhat above the mean of 50.3.

The infantile mortality, or deaths under I year to 1,000 births was 50, rather less than half the figure of 1912, and bearing much the same relation to the decennial average of 108; it is also all but the best recorded (29 in 1910).

The three infant deaths were due to malformation,

diarrhœa, and peritonitis.

The births of 32 boys and 28 girls give an annual rate of 14.6 per 1,000, which is the lowest yet recorded, although only by a small fraction; this figure was 14.7 in 1901. The mean for the previous ten years worked out at 18.2. The births during the four quarters numbered 16, 13, 17 and 14, giving rates per 1,000 per annum of 15.6, 12.7, 16.6, and 13.7 respectively.

The natural increase, or excess of births over deaths, taking into account those "transferable," was II or 2.7 per 1,000 of the population, as compared with II in 1912,

and 23 in 1911.

With the exception of the birth rate, the figures for the past year are very satisfactory. Both the general death rate and the infantile mortality approximate the best yet recorded, while the zymotic rate is well below the mean. Turning to other causes of mortality, tubercular diseases (3 deaths from phthisis) represent a rate of .73 per 1,000—slightly more than half the average. Cancer, with identical figures, has decreased very considerably from 11 in 1912. The mortality from respiratory disease remains however somewhat high, 13 as compared with 12—while that due to heart affections (4) has largely diminished. There was only 1 death from violence.

ZYMOTIC DISEASE.—There were three fatalities from the seven ordinary zymotic diseases, caused by scarlatina, whooping cough, and diarrhœa; the resulting rate is .73 per 1,000, somewhat less than the mean of .86 for

the preceding ten years.

Notifications of infectious disease were 35 in number, as compared with 53 in 1912, and 9 in 1911. They included 19 scarlatina, 5 diphtheria, 5 erysipelas, and 6 tuberculosis.

TYPHOID FEVER.-The district was again en-

tirely free from this disease throughout the year.

DIPHTHERIA.—Five cases were notified. These were separated by considerable intervals of time, and spread over the whole year. The first attack occurred early in January in a young child, and was associated with defective drainage. Another case—in an adult—was reported in April, and the remainder in July, August and November respectively. Two were school children, and in one case a sister (also at school) had suffered from a sore throat three weeks previously; bacteriological examination, however, was without result. Four were between the ages of 5 and 15 years, and one was over 30.

Four were removed to the Exeter Sanatorium; there

were no fatalities.

Antitoxin is supplied by the Authority, and is kept at the Cottage Hospital; swabs are taken of all children in infected houses or other definite contacts. I sent up

13 during the year.

SCARLATINA.—The outbreak of the previous autumn continued to some extent during the first three months of the year, with one or two scattered cases later. Thus 4 were reported in January, 3 in February, 6 in March, and 3 at the beginning of April. The schools were hardly affected, although seven were in children attending them. Five were members of one family; two were attacked simultaneously, and the other three were taken by a relative, who lived in the next street, but some association continued, with the result that these too became infected. About the middle of March, several chil-

# COMPARATIVE TABLE.

COMP	TITAL.	-		-	-		-
DEATHS FROM.	1913	Average of years 1903-191 <sub>2</sub>	1912	11611	1910	1909	1908
Small Pox Measles Scarlatina Whooping Cough Diphtheria Continu'dFevers(typhoid,&c) Diarrhœa	- 1 1 - 1	- 1·1 ·2 1·0 ·3 ·2 ·7	- 1 - - 1	- - - - 1		- - 6 1 - 2	- - 1 1
TOTAL 7 CHIEF ZYMOTICS:	3	3.5	2	1	1	9	3
Phthisis Other Tubercular Diseases Respiratory Diseases Circulatory Diseases Cancer Violence All other Diseases Total Deaths	13 4 3 1 22	4·5 1 8 9·5 5·5 2·5 28·5 63	2 1 12 9 11 2 27 66	3 -5 11 7 3 24 54	4 - 8 8 4 - 35 60	5 1 4 5 4 6 30 64	4 7 6 5 4 34 63
Deaths under 1 year ,, between 1 & 5 year ,, over 65 years ,, und r 1 yr. to 1000 bth Average age at Death Transferable Deaths. Deaths in Union House	12 0 73 60 14 6 3 8 4 28 8. 50 54 8	15 5 '86 74 18 2 8 3 29 108	4100 16·1 ·49 77 18·8 8 3 27 104 51·2	4099 13:2 •24 77 18 8 4 1 27 52 56:5	4089 14·7 ·24 68 16·6 2 3 35 29 58·9	4079 15·7 2·21 75 18·4 8 8 25 107 45·3	4070 15·6 •74 83 20·4 14 2 24 169 43·8
Deaths in County Asylu	m		1	1	-	2	-
belonging to District Others added	1	=	1	2	-		-
Deducted not belonging	6	-	5	8	-	-	-

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

LOCAL GOVERNMENT BOARD, TABLE III

CAUSES OF DEATH.	All ages.	Under 1 year.	l and under 2 years.	2 and nuder by Sears.	ithin	or wit	hout t	he Dis	trict.	Total deaths whether of "Residents" or "non-residents" in institutions in the District.
1	2	3	4	5	6	7	8	9	10	11
All Certified Causes Uncertified	49	3	2 -	2	2 -	1 _	7	4	28	7
Scarlet Fever Whooping Cough Phthisis (Pulmonary Tuberculosis)	1 1 3	_	1	1	_	-	_ _ 2	,	=	=
Cancer, malignant disease Meningitis Organic Heart Disease Bronchitis Pneumonia (allforms)	3 1 4 6	1111						1 2	3 4 4	1 1 - 1
Other diseases of Res- piratory organs Diarrhœa & Enteritis Nephritis & Bright's Disease	6 1 1		1 =	1 =	=	-	3 -	=	1 1 -	=
Congenital Debility & Malformation, including Pre- mature Birth	2	1	-	_	_	-	-	1	1	-
Violent Deaths, ex- cluding Suicide Suicide Other Defined		=	=	=	=	_		=	=	1
Diseases ill-defined or	13 5	1	-	-	1	1	1	-	9	3
diknown	49	3	2	2	2	1	7	4	28	7

dren in Queen Lane were attacked, and the interassociation among these was so pronounced that I thought it advisable to exclude all the children from this street-15 in number-from school for 14 days, during which time they were kept under observation, and house to house visits made; there was, however, no further spread of the disease.

Single cases occurred in May, June, and November; the two former in houses previously infected; the latter in a child attending a school outside the district.

There were four instances of multiple attacks in the

same house, all with some interval.

Milk supplies were various, and did not at any time

come under suspicion.

Six were under 5 years, 11 between 5 and 15 years, I between 15 and 25 years, and I over the latter age.

Seven were removed to the Exeter Sanatorium, and the remainder isolated at home, the other children in the house being taken by relatives.

The type of disease was generally mild, though there

was one fatality in a child of 4 years.

The usual precautions were taken, and enquiries made among neighbours, and at the schools attended. Visits were made to infected houses both by the Sanitary Inspector and myself, from time to time, till the premises were again free from disease.

WHOOPING COUGH was prevalent to some extent in the early months of the year; there was, however, only

one fatality.

PHTHISIS.—Three deaths were registered, two between the ages of 25 and 45 years, and one between 45

and 65 years.

Three cases were reported, all in residents; two of them died before the end of the year, while the other was sent to a Sanatorium. Neither of them had any adverse family history, and sanitary conditions were satisfactory; all had separate bedrooms. Occupations were different, but one was a gardener, and, therefore, exposed to weather to some extent. One was between 25 and 45 years old, and the others over the latter age.

Three cases of other tubercular disease were notified; in two the knee was affected, and in another the wrist. In one of the former patients an accident was the starting point of disease; neither had any bad family

history. They all appear to be doing fairly well.

All cases are visited by myself, and enquiries made as to the sanitary condition of the premises and the health of other members of the family; cards of printed directions and spitting flasks are supplied. Disinfectant is also provided by the Authority, and rooms are disinfected by the Sanitary Inspector after death or removal, where ascertained.

Visits are also paid by the Tuberculosis Officer appointed by the County Council, who examines the relations at home, and decides the suitability of the case for

Sanatorium treatment.

OPHTHALMIA NEONATORUM was made notifiable in the autumn, but no cases have been reported. Arrangements are being made by the County Council todeal with this disease through the Registered Midwives.

DIARRHŒA.—One death occurred in an infant, but the disease was not much in evidence. Cards of printed instructions were, however, distributed in the

summer, and disinfectant supplied.

ISOLATION HOSPITAL & DISINFECTION.—
By agreement with the Exeter City Council, patients
from Dawlish are taken when necessary to the Sanatorium at Pinhoe: this is about 12 miles distant, along a
practically level road. Eleven cases (4 diphtheria, and
7 scarlatina) were removed there during the past year.

Houses are disinfected and limewashed where necessary, and rooms disinfected with the Linguer apparatus for aërial disinfection. There is no steam disin-

fector for dealing with bedding and clothing.

All notified cases are visited by myself immediately on receipt, and printed cards of instructions left; disinfectants are supplied gratis at the Surveyor's Office, 44,

High Street.

The County Council undertake the examination of swabs for diphtheria bacilli, also of sputa for tubercle, and Vidal's test for typhoid fever; these may be sent direct to Dr. G. Adkins, County M.O.H., 14 Bedford Circus, Exeter. The requisite swabs, etc., are kept at the Cottage Hospital.

HOSPITAL ACCOMMODATION FOR GENERAL DISEASES.—There is a Cottage Hospital at the top of Hatcher Street, which contains two small wards of four beds each and a cot, and two private wards. Sixty-four in-patients were treated during the

past year.

There is also a dispensary in connection with the

Hospital.

MIDWIVES' ACT is administered wholly by the County Council, who have appointed a special Nurse In-

spector.

SALE OF FOODS & DRUGS ACT is administered by the Police, and the following samples were taken in the District during the year:-

... I Milk ... Brandy ... 2 Pepper Butter ... I Rice Chocolate ... 2 Vinegar Gin

The sample of Brandy was found to be 28 per cent. under proof, and the vendor was convicted and fined.

I have no reason to believe that the food supplied is

otherwise than wholesome.

NOTIFICATION OF BIRTHS ACT has not been adopted.

# ADOPTIVE ACTS AND REGULATIONS IN FORCE IN THE DISTRICT.

Public Health Amendment Act, 1890. Infectious Diseases Prevention Act, 1890. Public Health Amendment Act, 1907.

Model Building Bye-Laws. Regulations under the Dairies, etc., Order, 1899. Model Slaughterhouse Regulations. Common Lodging House Regulations. Pleasure Grounds Regulations. Boating and Bathing Regulations.

#### CONDITIONS AND PROCEDURE. SANITARY

Water supply is derived from two springs on Haldon, the flow from which, after a short course-in one case of three-quarters of a mile, and in the other of about a third of that distance-is collected in a small impounding reservoir, with a sand filter, and is thence piped to the town, about five miles distant. The gathering ground, which is 350 acres in area, and lies from 500 to 600 feet above sea level, is uncultivated, of moorland type, and entirely free from houses or any source of animal pollution. From this point the water is conveyed by a 5 inch main to a home reservoir on the Burrows, a hill just outside the town; this supplies the houses on high levels, while the others draw direct from the main.

The service pipes are continued to Holcombe, which is thus supplied from the same source; the intake reservoir and the stream above are cleaned from time to time by the Surveyor.

A constant supply was maintained throughout the year, except for a few weeks in the late summer, during

which it was turned off at night.

At the beginning of 1912 the Council obtained a Provisional Order, which entitled them to acquire practically the whole of the gathering ground on Haldon, and in October, 1913, Mr. Ernest Page, K.C., the arbitrator (approved by both the Council and Sir Robert Newman, owner of the land in question) fixed the purchase money The Local Government Board have been at £5,000. asked to sanction a loan for this amount, and the source of the public water supply will, therefore, shortly become the property of the town. This is a most important acquisition, and one which will permanently insure the protection of the water from any possible pollution in the future. It is, in my opinion, essential that the gathering ground of an upland surface public supply should be in the hands of the community which depends upon it.

The water is analysed twice a year, once by myself (chemically) and once by the County Public Analyst (chemically and bacteriologically): on both occasions in

1913 the result was satisfactory.

LEAD.-Though the water is soft, and contains little lime salts in solution, no cases of suspected poison-

ing came under my notice during the year.

SEWERAGE.-Water closets are general, and nearly all are flushed; the sewers are brought to one main outfall, which is taken out to sea at a distance of threequarters of a mile north of the station; the outlet is below low water level. The whole system was in good working order during the year, but the portion exposed to the action of the sea suffered some damage from the heavy storms of the past winter: this has now been repaired. Some improvement has been effected in the distribution of the sewerage from Old Town Street, by diverting a portion into the Strand sewer to prevent the occasional flooding in three cottages at the top of High Street.

There are a few dry system closets in the rural part of the district, where there is no public water supply or sewerage accommodation.

There is no sewer outfall or other pollution of any

stream in the district.

SCAVENGING.—House refuse is removed daily in the central portion of the town; twice or thrice weekly in different parts of the outskirts, and weekly at Holcombe. The work is done by the employées of the Council, and the refuse disposed of by contract to farmers for manurial purposes.

SLAUGHTERHOUSES, of which there are six, are regularly inspected by the Surveyor and myself. Four are in the town, and two outside. One of the latter has recently been licensed by the Council, after certain structural improvements had been carried out to comply with the Bye-laws; the public water has been taken to the premises.

The drainage of the Beach Lane slaughterhouse has been partly reconstructed, and the yard and surroundings of late have been kept in better order.

I have generally found the premises of all well kept and limewashing carried out regularly on my visits.

No carcases, tuberculous or otherwise, have been condemned during the year; there is no special meat inspector.

HOUSING OF THE WORKING CLASSES.—Although I found ten cottages empty out of 126 visited this year, there is a scarcity of modern dwellings with three bedrooms; there is, however, little overcrowding. Many of the houses are of old type, small and somewhat cramped in space; the great majority, however, have through ventilation, and the town is too small to admit of much congestion. Three cottages were burnt down towards the end of the year; these were among the oldest type, with cob walls and thatch roofs.

Plans for 6 new houses were passed; 3 were built I have continued the House to House Inspection under the Housing and Town Planning Act. The localities dealt with include the village of Holcombe, High Street and its Courts, Queen Lane, Church Street, Park Lane, Stockton Road, Čarlton Terrace, and Frederick Terrace. In all 126 dwellings were visited, practically the whole of which were of the cottage type. Ten were empty, and of the remainder, 116 houses were tenanted by 251 adults and 129 children—or about 3.3 persons per house: they contained, excluding sculleries and back kitchens, 451 living rooms, or .8 persons per room. Practically no overcrowding was met with, and the largest number of tenants was 8 persons (6 children) in a 4-roomed

house; 6 persons (4 children), 5 persons (1 child), in threeroomed houses; and 5 persons (3 children) in a tworoomed house. In all:

14 houses contained 2 rooms 35 46 27 5 2

Excluding back kitchens and sculleries.

The empty houses were all but one of the 2 or 3. room type. All but 17 had through ventilation, but in a few instances there was no open space at the back.

All had the public water supply, except 4 at Holcombe, whose tenants use a spring, and three in the country, which depend on wells; of 89 closets, all but six were properly flushed; all these have since been attended to. In 16 instances two cottages, and in 4 instances three shared one closet. There were 7 pail privies.

Many of the yard pavings wanted attention, but most of the defects consisted in minor matters of repair, and the houses were as a rule dry. Roofs were all slate or tile, except 22, which were of thatch. Work done up to-

the present:

Drains re-constructed	
Draine remained	
Varde pared	6
Washbouses 1	8
Washhouses paved	II
Trumber of houses inspected under the House	
and rown Flanning Act	26
Number of houses unfit for habitation N	20
Representations made to the Habitation N	11.
Representations made to the Local Authority,	
with a view to obtain closing orders	il
Trumber of closing orders made	.1
Number of dwelling houses, the defects in which	11.
were remedied without the	
were remedied without the making of clos-	
ing orders	30
of discilling months of the state	, -
for human habitation, after the making of	
closing orders	
closing orders N	11.

General character of defects was in respect to yard' paving, cleanliness, and general repairs; a few only shewed any dampness.

DAIRIES, COWSHEDS, AND MILKSHOPS .-The Local Government Board Model Bye-laws of 1899, under the Order, are in force; these are printed on stout cards, and each milk seller has a copy. There are in the

district twelve registered dairymen (as in the previous year), seven of whom are cowkeepers, controlling in all about 70 cows, varying in number from 5 to 20. Milk is sent to Dawlish from six farms outside the district; four of these are in Newton Rural, where they are registered, and two in the St. Thomas Rural District.

Nine milk sellers have the public water supply; twodepend on springs, and one on a well. I visit them regularly twice a year, besides other occasional inspections. I have found the dairies clean, and shippens as a rule well attended to; a notice to limewash one of the latter was

immediately complied with.

There are no shippens in which cattle are kept constantly, more than at night for three or four months in the year, therefore Part II. of the regulations does not apply in this district.

I have no knowledge of the existence of any tubercular cattle in the district; no cases were notified during

the year.

The COMMON LODGING HOUSE, which is very small, and only accommodates a few lodgers, is visited from time to time by the Surveyor and myself, and has been found generally in good order. Cards, giving the legal number of occupants, are posted in each room.

SUPERVISION OVER NEW HOUSES.—The Model Building Bye-laws are in force throughout the district; new houses are under the control of the Surveyor, and all drains are tested; certificates of occupation

are given.

SCHOOLS.—There are three public elementary schools in the town; the girls and infants are practically under the same roof, but in separate departments, while the boys is at a short distance. Their position is fairly central, and the accommodation ample for present needs.

All have the public water supply for drinking and

flushing purposes on the premises.

An inner yard in connection with the infants' school

was paved during the year.

The Medical Inspection of children is carried out by an officer appointed by the County Council, under the control of Dr. G. Adkins, County M.O.H., and Chief School Medical Officer. He has during the year examined 104 children—55 boys and 49 girls—of whom 44, equally divided among boys and girls, exhibited some defect. Two girls were below the normal height, and the

same number below normal weight. "Diseased heads" was reported in 13 instances-1 boy and 12 girls; none were "unclean in body," but there was one case of skin As usual, enlarged tonsils (16), adenoids (1), and diseased glands (5) formed the most considerable group, while defective teeth were found in 9 instances.

Only four suffered from defective vision-about 4 per cent.-and 2 had external eye disease. One was deficient in hearing, and in one also ear disease was reported.

More serious constitutional disease was represented by heart affections, 3; deformities, 1; and mental deficiency, 3.

Evidence of extreme poverty was practically absent; none were found to be insufficiently clothed, and only

one badly nourished.

Vaccination was fair, but shows some signs of falling off; 83 or about 80 per cent. were favourably reported in this respect, as compared with 88 per cent. in 1912, and QI per cent. in 1911.

With the exception of the last item, all the above figures shew a marked improvement on those of previous

Twenty-five certificates were sent to parents; 21 children were absent from inspection.

FACTORIES AND WORKSHOPS ACT .- The following 47 workshops have been visited and generally found to be in good order. A notice to limewash a bakehouse was complied with; a yard in connection with a laundry has been paved.

Two notices have been served to require the provision of proper sanitary accommodation, in connection

builders' yards; these will be followed up.

In all instances the public water supply is in use, except a laundry on Badlake Hill, which depends on a spring of good quality, brought in by pipes.

There is only one outworker on the list.

One bakehouse comes under the definition "underground," but the occupier is licensed by the Council, and these premises are satisfactory; the bakehouse has been lately improved by a new ceiling of match boarding.

Bakers		 _	cining of materi	Doar	ding.	
		 8	Laundries			12
Bootmaker		 I	Plumbers			
Builders	***	 7	Printers			2
Coachbuilder		 I	Smiths			2
Dressmakers		 8	Tailors			4

# Mr. S. F. C. CHURCHWARD, Surveyor and Sanitary Inspector, reports as follows:-

Annual Report of Sanitary Work, etc., for the year ending 31st December, 1914.

Houses inspected						126
Dairies inspected						7
Cowsheds inspected					***	7
Milkshops inspected						5
Bakehouses inspected						
Slaughterhouses inspe				***		6
Intimation notices serv						36
Houses, new connection	on to	sewer				6
TIOUDED TO THE						3
Total number of water	er and	d smoke	tests			43
Total number feet of	drain	n water	and si	moke te	ested	1073
Total number of visi	ts					453
Plans for new houses	passe	ed				6

The house to house inspection under the direction of the Medical Officer of Health has been continued, and will be finished during the ensuing year.

The slaughter houses, dairies, milkshops, cowsheds, bakehouses, and conveniences at the Railway Station have been regularly inspected.

Most of the work for which intimation notices have been served has been performed. Where the notices have not been complied with, orders have been given for the work, or statutory notices served.

No complaint from further floodings has been received from houses in Brookdale Terrace, the relief sewer having now been laid about 15 months.

The water supply during the year has been constant, with the exception of the months of August and September, when it was turned off at 9 o'clock in the evening. During the remaining portion of the year the pressure on the mains was reduced by night to 8olbs., the full pressure being 185lbs.

The negociations and arbitration under the Provisional Order for the purchase of the watershed at Thorns, Haldon, has been completed, and it remains only for the purchase to be completed before the area becomes the property of the town

# METEOROLOGICAL STATION.

The station, which is maintained by the Council, is under the supervision of the Engineer and Surveyor, and is situated at the entrance to the Lawn, lat. 50.35 N., long. 3.27 W. All observations are taken at 9 a.m., local time, and it contains the following instruments:—

- Stevenson's screen, containing dry and wet bulb, maximum and minimum thermometers. The bulbs of the hygrometers are placed four feet above the grass, and are of standard make.
- 2. Self-recording aneroid barometer.
- 3. Self-recording vacuum thermometer, bright and black
- 4. Grass minimum thermometer, which is placed on grass, about one inch above ground.
- Rain gauge, Casella's, diameter of gauge 5 inches, height above sea level 17.59 feet, and fixed about 12 inches above ground.
- Sunshine recorder, a "Stoker Campbell," fixed on parapet of Royal Hotel; records are taken daily.
- Rain gauge, as above, at Burrow's Reservoir, height above sea level, 420 feet.
- 8. Rain gauge, as above, at Thorns Watershed, Haldon, height above sea level 550 feet.

## SHADE TEMPERATURES.

	Max Mean	Min. Mean	Max and Min. Mean	Range Mean.	Highest	Oa te.	Lowest	Date
January February March April May June July August September October November December	43	34	38	9	68	15	27	13
	38	31	35	7	55	5	30	20
	44	32	38	12	60	31	29	17
	48	35	41	13	65	24	34	8
	53	41	47	12	75	27	36	2
	52	40	46	12	78	26	42	1
	65	50	57	15	75	21	50	12
	70	56	63	14	78	26	48	9
	+2	48	55	14	77	2	46	15
	60	45	52	15	63	1	37	24
	55	42	48	13	60	2	30	23
	53	41	47	12	60	4	28	31

### BAROMETRIC PRESSURE.

	Mean of Month.	Highest Reading.	Lowest Reading.	Extreme range of pressure.
January	29.55	29 97	29.06	0.01
February	29.10	30.94	29.37	1.57
March	30.01	30.88	29.04	1.84
April	29.15	30.29	29.03	1.21
May	29.97	30.60	29.57	1.03
June	20-10	30.56	29.84	0.72
July	20:05	30.49	29.87	0 62
August	31.28	30.36	29.54	0.82
September	90.75	30 35	29 09	1 26
Ostahan	98:45	30.08	28.58	1.50
Mamamahan	90.71	30.38	28.76	1.62
December	29.14	30.48	28.97	1.51

#### RAINFALL.

Т	he Law	n	Total Amount.		Greatest fall in 24 hours.	Date
January February			 7·10 1 03	19 8	0.79 0.31	13th
March April	***		 3 36 3 87 2 73	17 14 12	0.55 1.62 0.60	17th 28th 12th
May June July			 0.46 0.57	7	0 16 0 35	7th 8th
August September			 0.83 2.66 4.73	7 14 17	0.39 0.39 1.20	26th 1st 7th
October November December			 4·13 2·22	15 6	0.92 0.75	12th 24th
December			 33.69	143		

Total rainfall at Burrows, 34.13 inches. Total rainfall at Thorns, 37.29 inches.

### WIND DIRECTION.

N.	 	12 days	s. S.	 	52	days.
N.E.	 	30 "				,,,
E.	 	52 "	W.		67	
S.E.	 	34 "	N.W.	 	65	33

C. F. S. CHURCHWARD.

-
191
-
_
-
m
84
_
_
111
544
_
WATERS
_
ш
0
0
10
97
VSES
111
1
(F)
9,
-
11
67
-
2
2
Z
Z
ANA

		ALCOHOLD STREET															
Remarks.	A spring of fair quality.	Traces of iron—a granitic spring.	_	Traces of iron and shows a very satisfac- tory analysis.	A well in the granite of good quality.	Nitrates are rather large-otherwise fair.	A dipping well-contains a little vegetable matter.	A very fair well water	A limestone spring of excellent quality.	This well shows evidence of some pollution.	A spring of good quality.	Not fit for drinking purposes.	A very fair well water.	Unfit for drink ng purposes.	After being cleared and pumped out; still not potable.	Unfit for drinking purposes; has been closed.	The usual qualities of a good upland surface water.
Oxygen Absorbed	small	moderate	small	small	small	small	small	small	small	moderate	small	considerable	small	very large	large	large	moderate
abilo2 latoT   a l	18.5	7.0	26.6	8.83	0.2	32.0	21.0	21.0	0.12	23.8	9.61	23.1	8.83	42.0	49.0	0.89	7.0
Chlorine gallon Total Solids	1.4	1.4	1.2	1.5	1.0	5.6	2.1	1.0	1.4	4.5	1.2	7.0	89.	33.21	6.9	14.0	7.
	5.0	3-7	06.	1.0	1.6	6.1	-52	1	-50	8.9	1.6	4.5	4-1	1	.58	2.1	91.
Albumenoid Albumenoid Albumenoid Nitrogen Mitrogen from Acids	10-	-02	90.	-02	90.	.02	80.	.02	-03	.08	90.	-50	.04	-52	-19	.40	-065
Free Ammonia	-015	10.	lla	liu	-002	liu	llu	10.	-03	li li	<u>200.</u>	.05	200.	61.	liu	.01	-015
Physical characters.	yellow tint	a little suspended matter	pood	good, green tint	Rood	Bood	good	Rood	green tint	pood	boog	yellow tint	pood	yellow tint, some suspended matter	opaque and dirty	brown and cloudy	yellow tint
Date of collection of Sample.	Ap <sup>1</sup> . 15	June 16	Sept. 8	Nov. 5	Feb. 14	Mar. 29	Aug. 2	Feb. 5	July 12	June 26	Jan. 10	Apl. 21	Nov. 19	July 18	Oct. 18	Mar. 19	May 28
Source.	Newton Rural Bishopsteignton, spring, Ashwell.	gh	Broadhempston, spring near Kiln Cottages.	Broadhempston, the same	Buckland well; Higher Putsham	Dawlish West, well, Shutterton Cott	Denbury; well, Goosey Cottages.	fpplepen; well, Blackstone.	Kingsteignton; spring, Batcombe.	North Bovey; well, on green,	Trusham; spring at Station Masters.	Trusham; well in Rectory Lane.	Trusham; well at Brimmicombes.	Well at Bradley Wood Lodge.	The same	Dawiish Urban.	Public supply at Thorns.
		40				1 P				1000				2		0	11000

0																		
																. 3		
																	House acom	
1																		
	1																	+
		1	-	1	3	1					0.00							
	-		-	177	1	1	1	11	1	1	3		91	The same of the sa		1		M