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CORNWALL COUNTY COUNCIL.

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# ANNUAL REPORT

ON THE

## HEALTH OF CORNWALL

(Sanitary Circumstances, Sanitary Administration and  
Vital Statistics) for the year

1911,

With a Summary of Reports of District Medical  
Officers of Health,

BY

ROBERT BURNET, M.B., M.Sc., D.P.H.,

County Medical Officer of Health

AND

Principal Medical Officer to the Education Committee.

*September 30th 1912.*

TRURO :

O. BLACKFORD, PRINTER TO T.M. THE KING AND QUEEN.

1912.



# STAFF

(Health and Medical Inspection Department).

---

*County Medical Officer and Principal School Medical Officer—*

ROBERT BURNET, M.Sc., M.B., D.P.H.

*School Medical Inspectors—*

E. M. CLARKE, M.D. (Lond.) Deputy County Medical Officer.

P. LLEWELLYN VAWDREY, L.S.A. (Lond.) L.M.S.S.A. (Lond.)

*Chief General Clerk—*

CYRIL FLAVILL.

*Clerk (Statistics)—*

GAVIN HOPE.

*Clerk (Medical Inspection)—*

J. R. SANDERS.

*County Nurse Instructress (Education)—*

LILIAN E. WALTON, Cert. R.S.I.

*Inspectress under Midwives' Act—*

C. A. TAIT MCKAY, Cert. R.S.I., C.M.B.  
(Superintendent County Nursing Association.)

*Assistant ditto—*

ETHEL LYON, C.M.B.  
(Assistant County Nursing Association).

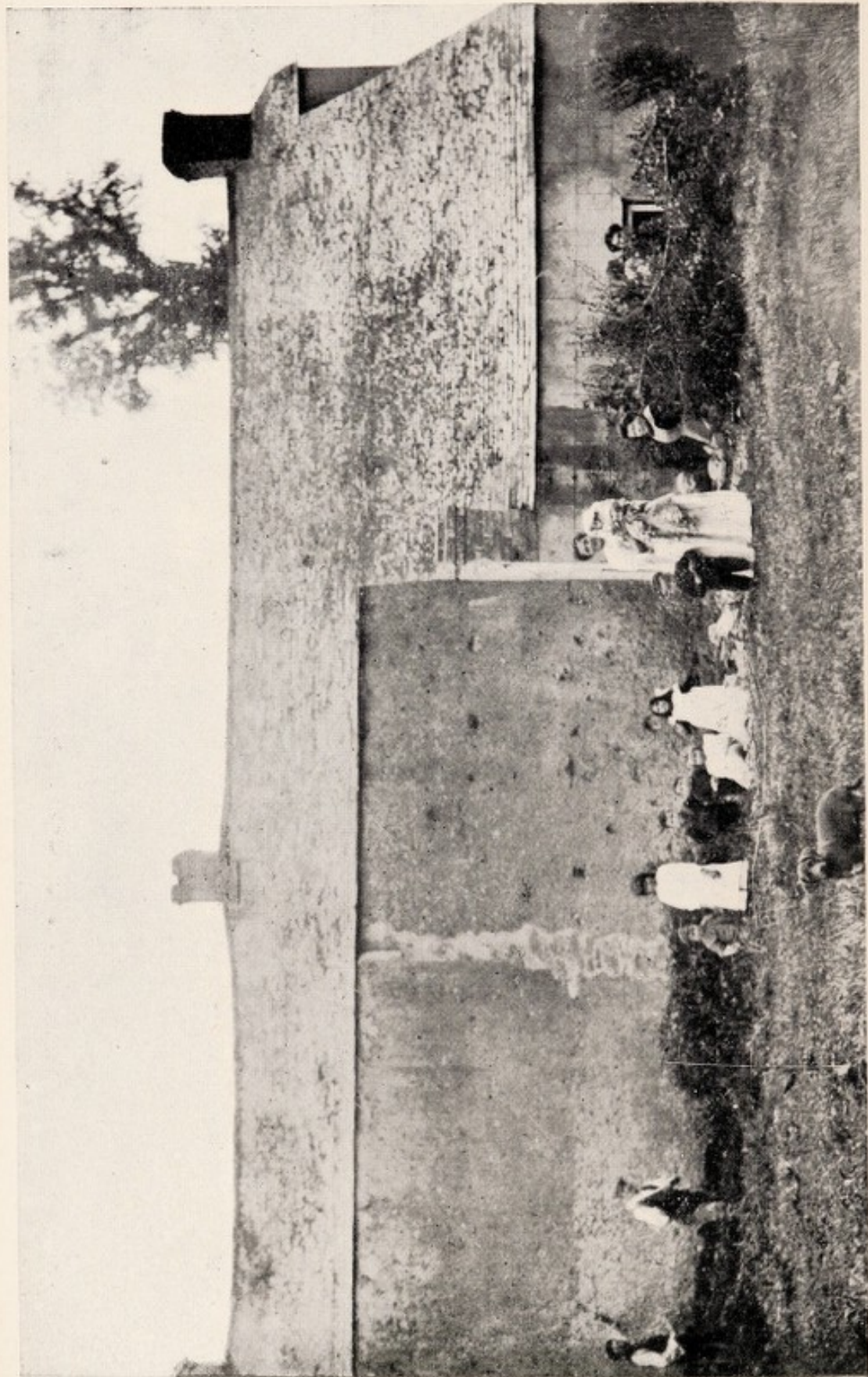


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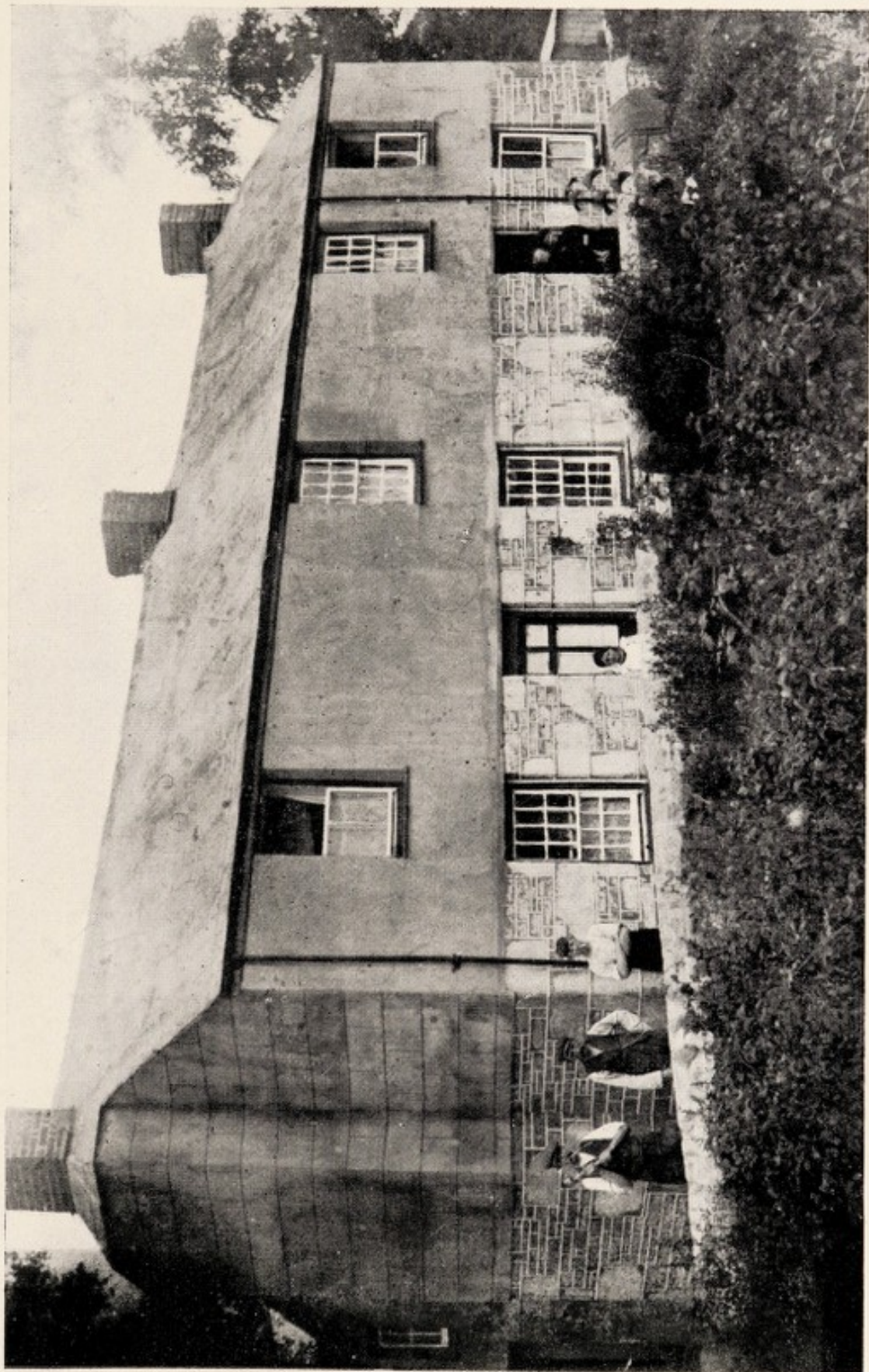
**THE HOUSING PROBLEM.—Plate I.**



**Insanitary Cottages at Biscovey undergoing alterations: there were no windows to ensure a "through draught."**

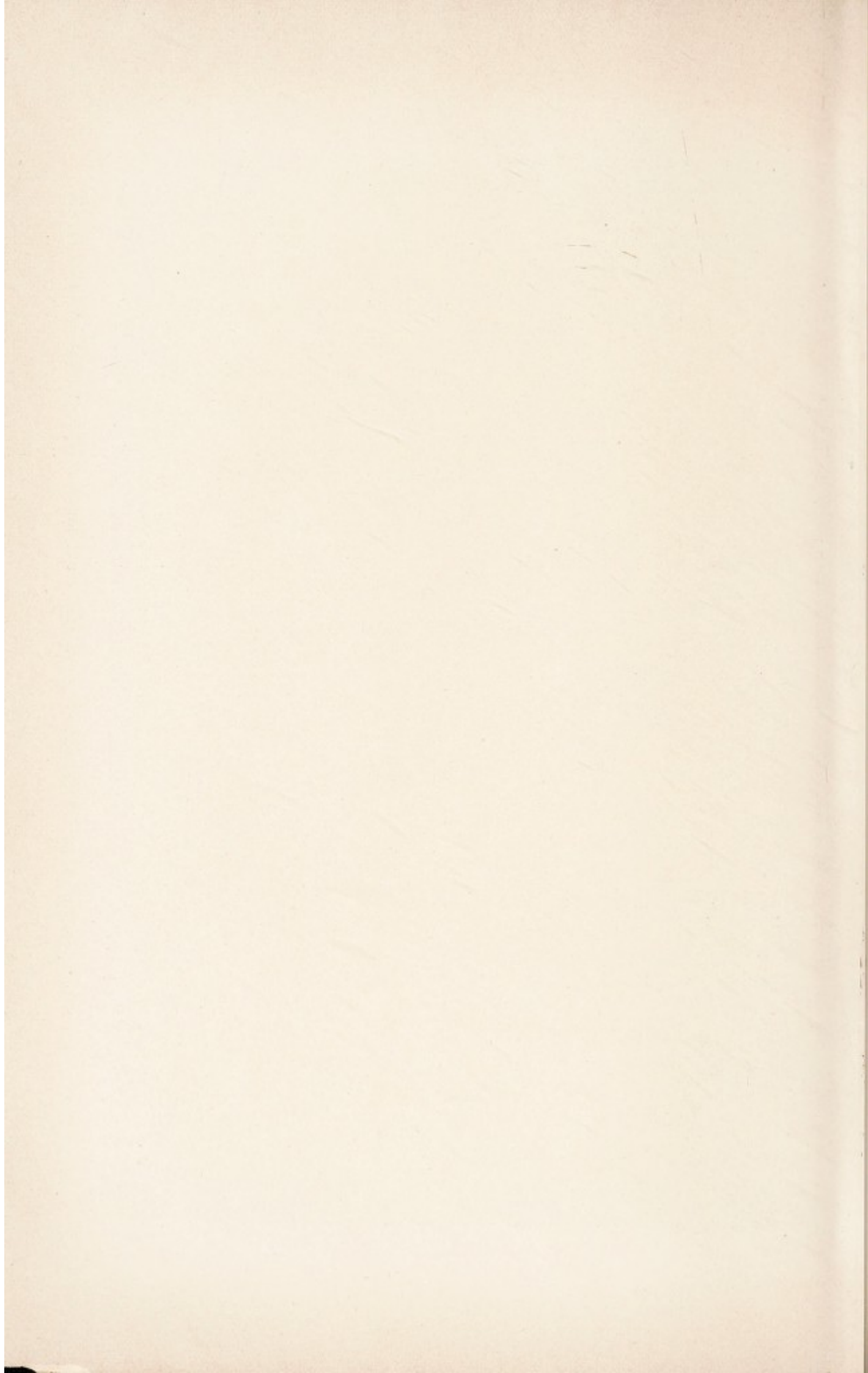


**THE HOUSING PROBLEM.—Plate II.**



Front view of the same premises after alterations. The windows are made to open wide above and below.





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COUNTY HALL,  
TRURO,  
SEPTEMBER 30TH, 1912.

**To the Chairman and Members of the County Sanitary  
Committee.**

---

Gentlemen,

I have the honour to present to you my Annual Report on the Sanitary Circumstances, Sanitary Administration, and Vital Statistics of Cornwall for the year ended December 31st, 1911.

In the matter of the general crusade against Consumption, it is important to draw attention to the work of your Chairman, the Hon. John R. de C. Boscawen, who was so largely responsible for the success of the Tuberculosis Exhibition held in the county; such services, assisted by those of the individual members of your Committee, must, by their educative value, have placed the community in the most receptive attitude towards the advantages about to accrue from legislative measures already directed against this dread disease.

The Vital Statistics of the Administrative County for the year under review, are not what one could reasonably call satisfactory; for the year, the General, Zymotic, and Infant Death-Rates are certainly high in a county which ranks foremost among England's health resorts. For extenuating circumstances, one must realise that it was a very exceptional year with its long-continued drought, bringing in its trail not only a severe and unusually fatal outbreak of the Summer Diarrhœa of Infants, but also a disease hitherto unknown in



epidemic form in Cornwall, namely, Poliomyelitis : there was, however, not one authenticated case of Cerebrospinal Meningitis, or " Spotted Fever."

An extremely adverse feature in the statistics is to be found in the County Birth-Rate, which is less than that for all England, whose own rate is so low as to cause grave concern to all who have the country's future at heart.

Some Local Authorities have still to be reminded that much remains to be done with regard to Housing, Water Supply, and Sewage Disposal, if they are to justify that confidence placed in them by the county's increasing number of visitors.

The work of Administration of the Midwives' Act of 1902 has been thoroughly re-organised, and the County Council, through the Midwives' Committee, have appointed two inspectresses : the scheme is working well, with the result that a largely increased Midwives' County Roll has been completed.

I have to thank you, gentlemen, for your continued co-operation. To my staff I am indebted for their loyalty and support ; and, finally, I must express my gratitude to the many Medical Officers of Health for much valuable assistance.

I am,

Your obedient servant,

ROBERT BURNET.

## Part I.

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### NATURAL AND SOCIAL CONDITIONS OF THE COUNTY.

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#### Physical Features.

Cornwall is the most South-Westerly county in England. Separated from Devon by the River Tamar, it forms a peninsula, with the sea on three sides. Its length from Devonshire to Land's End is 80 miles, and its breadth at its widest part is 45 miles. The area of the county is 868,167 acres, and the population at the 1911 census was 328,131. The surface of the land is very hilly, the highest points being Brown Willy, near Camelford (1,375 feet), Rough Tor (1,296 feet), Caradon Hill (1,208 feet), Sharppoint Tor (1,200 feet), Tober Tor (1,127 feet), Mennaclew (1,124 feet), Kit Hill (1,067 feet), Trewartha Tor (1,050 feet), Hensbarrow (1,034 feet), and Caden Barrow (1,011 feet).

Generally, the rocks belong to the primary strata, and include enormous quantities of granite. The coast is rugged, but has many large bays—Bude, Port Isaac, Watergate, Perran, and St. Ives, on the North—Mount's Bay and Whitesand on the West—and Falmouth, Gerrans, Veryan, St. Austell, Fowey, Looe, Whitesand, and Cawsand Bays on the South.

The chief rivers are, the Tamar (tidal for about 20 miles), the Inny and Lynher (its tributaries), the latter navigable to Notter Bridge, the Tidi (navigable to St. Germans), the Looe (forming the haven at Looe), the Fowey (navigable in part between Lostwithiel and Fowey Harbour), the Fal (navigable for over ten miles), the Hel (forming Helford Haven below Gweek), the Camel (entering the sea at Padstow, and navigable for eight miles), and the Heyl forming the estuary of Hayle). The soil is mainly porous, but in places much clay and rock abound rendering the



surface impervious to water and surface drainage difficult. The main roads are well kept, and despite the sudden change of traffic and vehicles of recent years, still retain a good surface; the dust nuisance, however, is still considerable although tar spraying has done much towards mitigation.

### **Social and Industrial Influences.**

Cornwall was first brought into prominence by the Iberian navigators from Spain, who during their search for gold in the river beds, came upon the metal tin, with which they traded with the Phœnicians. After the decline of the Iberians came a prosperous period for the Celts, and two mixed (British and Iberian) tribes existed at the time of its conquest by the Romans. There was a subsequent relapse following the fall of the latter, but on the advance of the West Saxons they had to submit, until Athelstan brought Cornwall and the Scilly Isles under English rule.

To-day Metalliferous Mining (tin, etc.) is one of the most important industries in West Cornwall. Besides this, China Clay, Fishing, Farming, Fruit Growing, and general Agricultural pursuits, contribute to the staple industries; in addition, there are numerous slate and granite quarries. The occupations are mainly, therefore, out-door ones; the workers are often exposed to much driving rain, but this has little effect on them; neither do the School Children take much heed, perhaps not enough, of the rain in the very wet weather. There is, however, a tendency to over-clothing, despite the general mildness of the County. Speaking of the Eastern Division, Dr. Clarke says: "Although at one time there was a large industry in tin mining, there is very little now in East Cornwall. There are a few mines not actually idle, but very little work is done. On the other hand, many of the fathers of the children are employed in mining in South Africa and America. I hear occasionally of some father having returned to Cornwall, and said to be suffering from Tuberculosis of the Lungs. This disease is

liable to be caused by dusty occupations, and is peculiarly liable to follow the constant inhalation of the stone dust caused by "dry boring."

Only too true is this last observation, applied to certain of the mining districts in the Western Division also. A man comes home to die, only to infect the whole family. One is forced to the conclusion, therefore, that the cases of acute Phthisis in the County are frequently associated with consumptive patients thus imported, foci of infection being scattered broadcast in the affected neighbourhood.

Although wages in Cornwall are small as a rule, the cost of living is considerably less than in large towns. There is little destitution in the majority of the villages, and in many no actual poverty. The people are very temperate, and in many of the rural parts there are no public houses.

The County does not contain any very large centre of population. There are five towns with a population above 10,000, all of them in the South-West, and not one with a population reaching 16,000. The populations of the remaining small towns and Urban Districts are all below 8,000.

The following two pages will be found to contain all the necessary information with regard to the relation between the area and the population of each district for the Intercensal Period of 1901—1911. with an account of the increase or decrease, and also of the number of families or separate occupiers in each area for the year under review.



**CENSUS, 1911.**

Table shewing population, number of families or separate occupiers, area in acres, and increase or decrease of population in Intercensal Period.

**RURAL DISTRICTS.**

DISTRICT.	Families or Separate Occupiers.	Population		Increase or Decrease of Population in Intercensal Period		Area in Acres.
		1901.	1911.	Increase	Decrease	
Bodmin .. ..	2481	10393	10357	..	36	85087
Calstock .. ..	1294	5874	4881	..	993	5830
Camelford .. ..	1779	7188	7385	197	..	52544
East Kerrier ..	2011	8192	8009	..	183	24229
Helston .. ..	4264	17685	17192	..	493	73020
Holsworthy (part of)	77	329	325	..	4	5302
Launceston .. ..	1827	7797	7544	..	253	73187
Liskeard .. ..	3853	15674	15349	..	325	102018
Redruth .. ..	4559	18383	18004	..	379	26546
St. Austell .. ..	7732	29597	32707	3110	..	58316
St. Columb .. ..	2675	10747	11262	515	..	77028
St. Germans .. ..	2872	14386	12274	..	2112	41763
Stratton .. ..	1135	5008	4924	..	84	53395
Truro .. ..	5373	22062	20515	..	1547	88236
West Penwith ..	2721	11298	11165	..	133	41202
Scilly Isles .. ..	460	2092	2097	5	..	4041
Totals .. ..	45113	186705	183990	Decrease 2715		811744

Average number of persons per house, 4.05.

**CENSUS, 1911.**

Table shewing population, number of families or separate occupiers, area in acres, and increase or decrease of population in Intercensal Period.

**URBAN DISTRICTS.**

DISTRICT.	Families or Separate Occupiers 1911.	Population		Increase or Decrease of Population in Intercensal Period		Area in Acres.
		1901.	1911.	Increase	Decrease	
Bodmin .. ..	1052	5353	5734	381	..	2797
Callington .. ..	434	1714	1713	..	1	2531
Camborne .. ..	3912	14726	15829	1103	..	6932
Falmouth .. ..	2896	11789	13136	1347	..	791
Hayle .. ..	249	1084	1028	..	56	247
Helston .. ..	723	3088	2938	..	150	309
Launceston .. ..	962	4053	4117	64	..	2182
Liskeard .. ..	1075	4010	4371	361	..	2704
Looe .. ..	708	2548	2718	170	..	590
Lostwithiel .. ..	377	1331	1373	42	..	389
Ludgvan .. ..	553	2274	2213	..	61	4543
Madron .. ..	829	3486	3703	217	..	5571
Newquay .. ..	1019	3115	4415	1300	..	865
Padstow .. ..	582	1566	2480	914	..	191
Paul .. ..	1404	6332	6014	..	318	3446
Penryn .. ..	788	3190	3092	..	98	286
Penzance .. ..	3141	13136	13488	352	..	362
Phillack .. ..	885	3881	3611	..	270	2909
Redruth .. ..	2633	10451	10815	364	..	4006
St. Austell .. ..	828	3340	3365	25	..	196
St. Ives .. ..	1823	6699	7179	480	..	1889
St. Just .. ..	1384	5646	5753	107	..	7634
Saltash .. ..	914	3357	4130	773	..	193
Stratton and Bude..	710	2308	2979	671	..	1882
Torpoint .. ..	1081	3404	4283	879	..	975
Truro .. ..	2704	11562	11325	..	237	1139
Wadebridge .. ..	586	2186	2339	153	..	864
Totals .. ..	34252	135629	144141	Increase 8512		56423

Average number of persons per house, 4.2.

<b>WHOLE COUNTY</b>	<b>79366</b>	<b>322334</b>	<b>328131</b>	<b>5797</b>	<b>868167</b>
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Average number of persons per house, 4.13



### Climatological Records.

The statement that "In Cornwall England possesses a Riviera which is to-day defying foreign rivals," is one which is amply justified. In certain localities on the South Coast, particularly in the neighbourhood of Falmouth, the climate is so mild in winter-time that it is difficult to realise the newspaper reports of the severely cold weather frequently prevailing simultaneously in other parts of the British Isles. Hence it is that in Cornwall a suitable winter climate can always be found for senile persons and others who may not reasonably be expected to stand with impunity the hardships of the average English winter; for this reason also, Colonials, Anglo-Indians, and others are enabled to prolong their English visits for any length of time, whilst it is of course obvious that the same advantages must accrue to persons with delicate constitutions.

It is a remarkable fact that in this County bracing and relaxing climates are to be met with in places frequently but a few miles apart; the narrowness of the peninsula, shelter or otherwise from the Atlantic breezes, prevailing winds and sea currents, all combine in producing these effects. Speaking generally therefore, the climate of Cornwall is exceptionally mild, especially in the Southerly and Westerly Districts, but a little less so in Northerly and Easterly parts, mainly because of the high elevation in these regions. For the most part the climate is moist and relaxing in varying degrees on the South coasts, but distinctly bracing and dry in the North, although the distances between the North and South coasts are in some places which exhibit these contrasts but a very few miles. In some places, such as Falmouth, and particularly at Flushing, the thermometer has been known to remain above freezing point throughout the entire year. Snow, even in small amount, is comparatively rare in the County. The Western Division, and particularly the South-Western portion, is milder than the Eastern, and much milder than the

North-Eastern. The effect of this is obvious in the difference between the incidence of lung affections in the two divisions of the County, as exemplified by the accompanying statistics of lung affections in school children; their value for this purpose is enhanced by the fact that none of the cases were in their districts because of the complaint, which might have been the case had adults been selected.

### Lungs (including Bronchitis).

Age Groups.	Eastern Division.		Western Division.	
	Number.	Per cent	Number.	Per cent.
5—7	122 (2477)	4·9	63 (2443)	2·6
7—12 (Specials)	39 (922)	4·2	5 (447)	1·1
12—14	66 (2577)	2·6	8 (5738)	·29

The figures in brackets represent number examined.

The following four pages contain information as to the Rainfall, Temperature, Humidity, and Sunshine recorded at twenty-five stations located at important positions in the county. Monthly returns are carefully prepared and supplied by the gentlemen whose names are given in the last column of page 13, their respective stations being indicated in the first column opposite their names.



## DISTRICT MONTHLY RAINFALL—1911.

Stations.	Altitude.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Totals.
	feet	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.
Bude	50	No	Returns	...	...	...	2.45	0.38	3.76	2.76	3.21	4.67	5.26	22.49
Poughill	200	1.71	2.61	2.51	2.21	1.68	3.42	0.55	3.73	2.86	3.23	5.11	6.64	36.26
Tintagel	245	1.15	1.83	2.47	2.08	1.46	2.31	1.01	2.14	1.95	3.02	3.87	7.53	30.82
Launceston	446	1.32	2.26	2.28	2.66	1.41	4.10	0.71	1.79	2.44	4.72	6.41	13.41	43.51
Gunnislake	850	1.71	2.69	2.74	3.26	2.65	4.24	1.10	4.47	2.64	4.77	5.58	13.11	48.96
Pentilie Castle	150	2.33	3.78	4.40	3.26	3.42	3.07	1.38	3.41	3.06	5.38	6.36	14.00	49.71
Liskeard	375	1.86	2.92	4.18	2.22	1.18	4.31	1.25	2.36	2.53	4.95	6.95	12.46	47.17
Newquay	100	1.34	1.87	2.56	1.81	0.58	2.07	0.85	2.01	2.98	2.95	3.54	7.64	30.20
Plymouth (Devon)	117	1.34	2.82	3.69	2.19	0.96	1.95	1.49	2.51	2.28	3.50	5.21	9.78	37.72
Cremyll	25	1.49	2.80	3.03	2.30	1.25	2.19	1.24	2.41	2.54	3.62	5.19	9.16	37.22
Fowey	...	1.17	2.26	2.74	1.46	0.97	2.48	0.91	1.53	2.63	3.19	4.65	6.79	30.76
St. Austell	300	1.88	2.45	4.00	2.02	1.02	3.16	1.17	2.50	3.34	4.52	4.94	11.20	43.20
St. Agnes	318	1.28	1.87	2.82	1.93	0.79	2.04	1.01	2.01	2.64	3.03	3.36	8.29	31.07
Probus	...	1.34	1.71	3.29	1.48	0.53	2.54	1.23	1.19	2.67	3.85	4.15	9.28	33.26
Truro (R.I.C.)	40	1.79	2.52	4.16	1.87	1.15	3.20	1.12	2.14	3.07	4.77	5.26	11.97	43.02
Redruth	...	1.88	2.89	4.97	2.41	1.05	2.50	0.94	2.72	3.19	4.49	4.49	10.88	42.41
Trevice	240	2.38	2.81	4.97	2.51	1.18	2.81	1.08	2.70	3.48	4.74	5.07	11.18	44.91
St. Ives	60	2.19	2.67	3.85	2.57	0.83	2.22	0.83	2.79	3.43	4.00	4.82	8.39	38.59
Phillack	70	1.15	1.91	3.24	2.19	0.75	2.19	1.68	2.59	2.67	3.55	4.54	6.69	33.15
Falmouth (Ob.)	169	1.66	3.31	3.85	2.81	1.04	2.46	1.14	2.45	3.33	4.21	5.05	9.19	40.50
Bosahan	...	1.09	1.44	3.02	2.16	1.04	1.99	0.84	2.84	2.79	3.21	3.17	7.17	30.76
Mullion	...	1.24	1.63	3.56	1.36	0.57	1.52	1.27	1.85	2.88	3.72	3.12	7.01	29.73
Marazion	30	1.76	2.72	3.91	2.32	0.83	2.23	1.61	2.31	3.49	4.47	4.65	8.81	39.11
Penzance	...	2.43	2.57	4.32	2.43	0.80	2.32	0.95	2.94	4.16	4.65	4.95	7.86	43.38

## Temperature and Humidity—1911.

	Mean Temperature	Mean Daily Range of Temperature	Absolute Extremes of Temperature.		Mean Relative Humidity of the Air.
			Highest	Lowest	
	°	°	°	°	saturation=100
January ... ..	42·35	9·11	52·9	29·0	87
February ... ..	43·20	8·81	54·5	26·1	84
March ... ..	43·84	10·15	57·1	30·5	84
April ... ..	46·67	12·49	60·4	27·9	80
May ... ..	56·32	15·07	75·5	39·3	75
June ... ..	59·83	12·97	78·3	43·9	74
July ... ..	65·48	15·50	83·5	48·9	71
August ... ..	65·25	13·72	80·4	49·1	76
September ... ..	59·87	13·32	79·5	43·2	76
October ... ..	52·81	9·95	62·6	39·8	82
November ... ..	45·66	10·15	57·7	28·8	81
December ... ..	46·43	9·21	54·5	33·5	87
Means... ..	52·31	11·70	Highest 83·5	Lowest 26·1	80

## Winter and Summer Temperature and Humidity—1911.

	Mean Temperature	Mean Daily Range of Temperature	Absolute Extremes of Temperature.		Mean Relative Humidity of the Air.
			Highest	Lowest	
	°	°	°	°	saturation=100
<b>WINTER.</b>					
January ... ..	42·35	9·11	52·9	29·0	87
February ... ..	43·20	8·81	54·5	26·1	84
March ... ..	43·84	10·15	57·1	30·5	84
April ... ..	46·67	12·49	60·4	27·9	80
November ... ..	45·66	10·15	57·7	28·8	81
December ... ..	46·43	9·21	54·5	33·5	87
Means ... ..	44·69	9·98	Highest 60·4	Lowest 26·1	85
<b>SUMMER.</b>					
May ... ..	56·32	15·07	75·5	39·3	75
June ... ..	59·83	12·97	78·3	43·9	74
July ... ..	65·48	15·50	83·5	48·9	71
August ... ..	65·25	13·72	80·4	49·1	76
September ... ..	59·87	13·32	79·5	43·2	76
October ... ..	52·81	9·95	62·6	39·8	82
Means ... ..	59·93	13·42	Highest 83·5	Lowest 39·3	76



## RAINFALL—1911.

			Mean Total Rainfall.	No. of Days with rain (00·1 in. or more.)	Greatest fall in one day.
			Inches.		Inches.
January	..	..	1·70	13	0·64
February	..	..	2·48	15	0·64
March	..	..	3·45	19	0·83
April	..	..	2·19	13	0·49
May	..	..	1·18	5	0·42
June	..	..	2·59	13	0·70
July	..	..	1·07	4	0·74
August	..	..	2·54	10	0·99
September	..	..	2·90	13	0·68
October	..	..	3·98	16	0·83
November	..	..	4·80	22	0·69
December	..	..	9·32	27	1·08
Totals	...	..	38·20	170	1·08

**SUMMARY.**

Temperature, Humidity, Rainfall, and Sunshine—1911.

STATIONS	Mean Tempera- ture.	Mean Daily Range of Tempera- ture.	Mean Relative Humidity.	Total Rainfall.	Total duration of hours of bright sunshine.	Authority supplying the Monthly Returns
	°	°	%	Inches.		
Bude ... ..	*	*	*	†22·49	*	Mr. Karl Durston
Poughill ... ..	*	*	*	36·26	*	Miss Field
Tintagel ... ..	*	*	*	30·82	*	Mr. W. Taylor
Launceston ... ..	50·45	16·00	79	43·51	*	Capt. Ching, R.N.
Gunnislake	*	*	*	48·96	*	Mr. C. A. Wadge
Pentillie Castle...	*	*	*	49·71	*	Mr. W. T. Johnson
Liskeard... ..	51·25	10·91	*	47·17	*	Mr. W. A. Jenkin
Newquay ... ..	51·71	10·36	81	30·20	2002	Dr. Vigurs
Plymouth (Dev.)	51·43	11·19	81	37·72	1967	Mr. H. V. Prigg
Cremyll ... ..	52·61	13·28	*	37·22	*	Mr. W. Wonnacott
Fowey ... ..	51·03	7·88	*	30·76	1999	Dr. Boger
St. Austell ... ..	*	*	*	43·20	*	Mr. W. M. Coode
St. Agnes ... ..	*	*	*	31·07	*	Dr. Whitworth
Probus ... ..	*	*	*	33·26	*	Mr. H. Tresawna
Truro (R.I.C.) ...	52·66	14·97	80	43·02	1945	Mr. G. Penrose
Redruth ... ..	*	*	*	42·41	*	Mr. A. Lanyon
Trevince ... ..	*	*	*	44·91	*	Mr. E. B. Beauchamp
St. Ives ... ..	¶53·22	8·98	78	38·59	*	Dr. Nicholls
Phillack ... ..	*	*	*	33·15	*	Rev. A. F. Hockin
Falmouth (Ob.)	52·45	10·25	79	40·50	2055	Mr. E. Kitto
Bosahan ... ..	51·83	9·25	*	30·76	1999	Mr. T. Crawford
Lizard Lights ...	54·89	*	*	*	*	Mr. H. P. Harrison
Mullion ... ..	*	*	*	29·73	*	Mr. R. Thomas
Marazion ... ..	*	*	*	39·11	*	Mr. T. F. Michell
Penzance ... ..	53·53	10·03	79	43·38	1936	Mr. C. H. Benn

\* No Observations.

† 7 Months total—June to December.

¶ 11 Months' average.



### Certain Health Resorts.

#### FALMOUTH,

300 miles from London, and 60 from Plymouth, furnishes a valuable marine winter health resort and residential place for most invalids and infirm and elderly persons. It is eight miles distant from Truro, and lies on the south-west bank of the River Fal, overlooking Falmouth Harbour on the one side, and the Bay on the other. The town has a southerly aspect, and with a somewhat crescentic shape, lies on a peninsula. The climate is exceptionally mild generally, but affords such local differences as are so necessary for selection in the various affections.

Sir Edward Sieveking, M.D., LL.D., is reported to have stated concerning the town:— "To those who wish to escape from the summer heat of other localities, for those who require an equable climate during the cold that prevails in the winter months, Falmouth offers attractions not readily found elsewhere."

Also at the Annual Meeting of the British Medical Association in 1896, Sir Joseph Fayrer, K.C.S.I., M.D., said:— "I think it will be found that Falmouth merits the preference assigned by all who know it, whilst the many advantages arising from proximity to the sea, the beautiful and interesting surroundings, bright sunshine, lovely flowers, and vegetation, which suggest the geniality of spring in the midst of winter, all combine to confer on it qualities such as are rarely met with, and are not the least valuable that they are easy of access and near home."

For further information of the climatology of this resort, reference must be made to the general climatological tables given in the previous section. In addition however, it would be well to note that for the winter months, the mean temperature during 35 years, from 1871, was as follows:— November, 47.4; December, 44.6; January, 43.4; February, 43.3; March, 43.8; and April, 47.4.



The area, population, and general information as to the health, etc., of the borough, will be found in the pages set apart for the purpose. In addition to cases of senility, chronic cases of Bright's Disease, and certain forms of lung trouble, together with nervous and other diseases, are credited with doing extremely well in Falmouth.

#### PENZANCE,

326 miles from London, 130 from Exeter, 10 from Land's End, and 21 miles from the Lizard, is the most westerly marine climatic health resort in England. It is situated on the north-western shore of Mount's Bay; facing mainly south, it is sheltered on the northern and western side. Penzance furnishes thus a magnificent winter health resort. Its climate is similar to that of Falmouth, being characterized by the great amount of sunshine; in fact, what has already been said of the latter town with regard to climatic conditions, is almost entirely applicable to Penzance. The atmosphere has a high average relative humidity. For the six coldest months of the year during a period of thirteen years, the mean temperature was as follows:— November, 46.5; December, 43.0; January, 41.7; February, 42.0; March, 43.1; April, 48.0.

Reference should be made to the preceding Climatological Records of the County for further information on the subject, and a full account of the area, population, sanitary circumstances, etc., of the district, will be found in portions of this report which deal specially with these considerations. No attempt has been made in these pages to give any description of the places named, with regard to the points of view of the pleasure-seeker or holiday-maker: for this the various guides must be consulted. For those who require a sunny and equable winter residence, for the senile, and for such as have been accustomed to a tropical climate, Penzance is unique. Cases of chronic interstitial nephritis, certain forms of lung trouble, chronic cases of nervous and heart disease, and some cases of neurasthenia, are said to undergo much improvement in this Health Resort.



## NEWQUAY,

281 $\frac{1}{4}$  miles from London, and 16 from Truro, is another marine health resort of great importance. It lies on the north-west coast of Cornwall on a natural promontory (Towan Head). The town is supplied with a copious and constant water supply on the conduit system, the analyses of which continue to bear evidence of its excellent purity and freedom from contamination. The climate of Newquay is, on the whole, equable and very bracing in summer and autumn, but has not the characteristics in winter time which have been attributed to the two foregoing towns of Falmouth and Penzance. Yet there is no extreme cold, such as is felt at many English health resorts at this period of the year. In summer and autumn Newquay is, perhaps, one of the most bracing, pleasant, and cool of all English health resorts. Its mean annual temperature was 52.3 for an average of fifteen years, and in 1910 its sunshine record was over 1,700 hours. Its average death-rate is a very low one. For further details of the health, sanitary administration, statistics, and area and population, reference should be made to the portions of this report which deal specially with these items. Again no attempt has been made to enter into the details of the natural beauty of the place, places of interest, etc., which are adequately dealt with in the guide books, but cases of anæmia, debility, convalescents after surgical operations, etc., soon show marked improvement under the influence of the pure Atlantic breezes. In addition, certain cases of chronic lung trouble, chronic rheumatism, rheumatoid arthritis, gout, functional diseases of the nervous system and neurasthenia are reported to benefit much by a sojourn in this bracing health resort.

## ST. IVES

Is a municipal borough on the northern coast of west Cornwall, lying in St. Ives Bay. It is 9 miles to the north-east of Penzance, and is 325 miles from London. The import-



ance of St. Ives as a health resort is rapidly increasing ; as regards climate, it occupies a position somewhat intermediate between Penzance and Newquay, as might be expected from its geographical position. In fact, it to a very large extent combines, from a health point of view, the advantages of both. The air is distinctly bracing, and the winter is never severe.

Information on the subject of the town's population, area, health statistics, sanitary circumstances, and other matters, will be found under the several headings specially set apart in these pages.

It is obvious that after stating the types of illness likely to be benefitted by the climates of Falmouth, Penzance, and Newquay in the foregoing articles, it will be easy to conclude which of the list might reasonably be chosen for St. Ives, or, in fact, for any of the succeeding smaller health resorts, which must be mentioned, due regard being given to their several geographical positions.

### BUDE,

Twenty miles north-west from Launceston, is a seaport and bathing resort at the mouth of the River Strat, on the extreme northern coast of Cornwall. Like Newquay, Bude enjoys the Atlantic breezes, and has in consequence a bracing climate and pure atmosphere. Even in winter, the climate is equable, with freedom from frosts and snow, the mean winter temperature being 44.5. It would appear then, that Bude could well qualify for a popular winter resort, notwithstanding the fact that it is so well patronised by summer visitors who are in search of an invigorating atmosphere and bracing climate.

Perranporth, Fowey, Looe, Padstow, Porth, Carbis Bay, Boscastle, Tintagel, Sennen, Marazion, Mullion, Porthleven, Lizard, Mylor and Flushing, Portscatho, and others, have all certain definite claims as health resorts, but their size and accommodation, as compared with the places previously mentioned, do not admit of details being furnished, in a reference so short as is required for this volume.



## Part II.

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### BIRTHS AND DEATHS.

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#### Births.

6,687 births were registered in the Administrative County during the year 1911; 1,308 occurred in the eleven Boroughs, 1,598 in the remaining 16 Urban Districts, and 3,781 in the 16 Rural Districts.

With a population, therefore, of 327,806, the Birth-Rate per thousand living in the Administrative County was 20.39 for the year 1911. The rate for England and Wales was 24.4, in the Rural Districts of England and Wales 23.4, in the 77 great towns 25.6, and in the 136 smaller towns 23.4. In Cornwall, the Birth-Rate for the eleven Boroughs was 18.4, for the 16 Urban Districts 21.8, and for the 16 Rural Districts 20.58.

It will be observed that the lowest Birth-Rate is in the Boroughs, and the highest in the Urban Districts, in which more of the poorer classes are to be found, whilst the Rural Districts give an intermediate rate.

A reference to Table I. of the Vital Statistics will give the actual Birth-Rates for the year, in all the Districts.

In England and Wales the Birth-Rate has declined from 33.5 per 1,000 from 1881-1885, to 24.4 in 1911. Most of the great countries have suffered in the same way. The decline in the Birth-Rate is to be deplored, as little doubt remains that it is to a very large extent due to the efforts of certain of the upper and middle classes, and upper working classes, to limit their families by restricting child-bearing. Such a tendency is bound to find a reaction sooner or later. The trouble is enhanced by the fact that the middle and better working class families are being thus robbed of lives most valuable to the nation, whilst in the poorest classes the tendency is very little shown. In other words, the privilege of bringing children into the world who

would be an asset to the nation, is withheld, whilst the advent of children who are physically less fit to represent the nation, and who may even have to be supported by it, goes on apace. With a diminished Birth-Rate, it behoves us to consider the vast importance of diminishing the Infant Death-Rate, or the future of the nation is distinctly threatened,

### Deaths.

During the year 1911, 5,051 deaths occurred in the Administrative County; 1,116 occurred in the eleven Boroughs, 1,202 in the 16 Urban Districts, and 2,733 in the 16 Rural Districts. The County Death-Rate was 15.4 per thousand living.

ALL CORNWALL	...	15.4	ALL ENGLAND	...	14.6
11 Boroughs	...	15.7	77 Great Towns	...	16.4
16 Urban Districts	...	16.4	136 Smaller Towns	...	14.4
16 Rural Districts	...	14.8	Rural Districts	...	13.1

Death-Rates of the several Districts will be found in Table I. of Vital Statistics.

On account of the exceptionally hot and dry summer, the epidemic of Summer Diarrhœa was so disastrous to children under one year of age that it has materially affected the General Death-Rate, just as it has in the case of many districts in England.

### Death-Rates.

	ENGLAND.	CORNWALL.
1903	15.4	14.2
1904	16.2	14.7
1905	15.2	15.9
1906	15.4	14.4
1907	15.0	15.0
1908	14.7	14.7
1909	14.5	14.8
1910	13.4	14.3
1911	14.6	15.4



The Zymotic Death-Rate for the year 1911 shows an increase on that for 1910, being 1.51 per thousand of the population, as compared with .39 in 1910; the epidemic of a fatal type of Infantile Diarrhoea being the direct cause of this increase.

Similarly, the Infantile Mortality Rate (129.7 per 1,000 births) is extremely excessive, on account of the exceptionally hot and dry summer experienced in 1911 in Cornwall. It is the highest Infant Death-Rate since 1902, which year it reached 135. The rates for the last five years were as follows: 1907—97.9, 1908—101.8, 1909—96.6, 1910—85.4, 1911—129.7. The increase in the Infantile Mortality Rate was experienced, as stated above, in considering the General Death-Rate, throughout the country.

Phthisis.—410 deaths were the result of Pulmonary Tuberculosis.

Other Tuberculous Diseases.—134 deaths were registered under this heading.

Respiratory Diseases (Bronchitis, Pneumonia, and others)—555 deaths, 365 being due to Bronchitis.

Whooping Cough caused 107 deaths, giving a rate of .32 per 1,000, compared with .07 in 1910. Many of the schools were closed on account of this epidemic.

Cancer.—There were 370 deaths from this disease.

**Mortality Rates of England and Wales, and the Principal  
Towns compared with those of Cornwall—1911.**

		All Cases.	The following seven Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Enteric Fever	Diarrhoea.	Deaths under 1 year per 1,000 births.
England & Wales	1907	15·0	1·26	0·00	0·36	0·09	0·16	0·29	0·07	0·29	118
	1908	14·7	1·29	0·00	0·13	0·06	0·15	0·25	0·07	0·33	121
	1909	14·5	1·12	0·00	0·35	0·09	0·14	0·20	0·06	0·28	109
	1910	13·4	0·99	0·00	0·23	0·06	0·12	0·24	0·05	0·29	106
	1911	14·6	1·88	0·00	0·36	0·05	0·13	0·21	0·07	1·06	130
CORNWALL	1907	15·0	0·68	0·00	0·23	0·02	0·09	0·14	0·07	0·13	98
	1908	14·7	0·56	0·00	0·00	0·04	0·08	0·27	0·04	0·13	101
	1909	14·8	0·53	0·00	0·09	0·02	0·08	0·13	0·06	0·15	96
	1910	14·3	0·37	0·00	0·05	0·02	0·12	0·07	0·02	0·09	85
	1911	15·4	1·52	0·00	0·05	0·01	0·22	0·32	0·03	0·89	129
77 Great Towns...	1907	15·4	1·54	0·00	0·43	0·12	0·17	0·35	0·07	0·49	127
	1908	14·9	1·59	0·00	0·31	0·10	0·16	0·29	0·08	0·65	128
	1909	14·5	1·42	0·00	0·48	0·11	0·15	0·24	0·06	0·38	118
	1910	14·3	1·23	0·00	0·31	0·08	0·12	0·29	0·05	0·38	115
	1911	16·4	2·29	0·00	0·47	0·06	0·15	0·24	0·06	1·31	140
136 Smaller Towns	1910	12·9	0·88	0·00	0·16	0·06	0·11	0·24	0·26	0·26	104
	1911	14·4	1·98	0·00	0·41	0·06	0·12	0·18	1·14	1·14	133



## INFANTILE MORTALITY.

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The Infant Mortality Figure represents the number of deaths of infants under one year of age, per thousand births, hence relying not only on the number of deaths, but also on the number of births of a class of individuals who are the most frail, it is obvious that this figure necessarily becomes a very sensitive index. For this reason, therefore, and especially in view of the fact that many influences of environment are simultaneously brought to bear on it, the Infant Mortality Figure, or record of Infant Death-Rate, must be considered over a sufficient period of time, to be of any real value. For instance, the Birth-Rate of a certain place may, for a certain short period, be extremely low by coincidence: the number of infant deaths for that period might remain quite an average, yet the Infant Mortality Figure would be sufficiently high to give a wrong impression of the real state of things.

Infant mortality is about one-third higher in Urban districts than in Rural districts, as a rule; it is often twice as great among illegitimate children, not because there is any difference in the health at birth of such children, but on account of the fact that these unfortunate children are so frequently neglected, criminally or otherwise. It is sad to reflect that every fifth child that dies, dies in the first week of its life.

The causes of a high infant mortality are poverty and insanitary conditions (bad cleansing of streets, inefficient removal of night-soil, etc., bad air and overcrowding), the employment of married women, ignorance in infant rearing (unnatural feeding).

### **Usual Diseases Responsible for a High Infant Mortality.**

Premature Birth, Diarrhœal Diseases, Convulsions, Marasmus, Measles, and Whooping Cough, Chest Diseases, etc.



### **Administrative Measures Against Infantile Mortality.**

I. The Midwives' Act, 1902, assures better attention at birth, and therefore less deaths due to want of care.

II. Adoption of the Notification of Births' Act, (1907), by means of which, within 36 hours of the birth of a child, the Health Authorities are notified, so that Health Visitors may be sent, where necessary, to give advice on Infant Rearing and Care.

III. The Public Health Acts, so far as they improve the general sanitation and remove some of the above stated causes. Attention to special directions coming from time to time from the Local Government Board.

IV. Organisation of Classes for Elder Girls in schools, presided over by persons specially trained in the required subjects (nurses, etc.), who are appointed by Local Education Authorities under the Board of Education. Cornwall has appointed a nurse for this purpose.

V. Voluntary Agencies, such as committees of ladies who would personally visit houses for the purpose of giving advice, acting in co-operation with the local Health and Education Authorities, from whom they would get information and be provided with printed pamphlets and directions to mothers and those who may be about to become mothers. These should receive as much trained assistance as possible.

Attention to the above, giving due encouragement to the ignorant, and applying rigorous prosecution where there is wilful neglect, would result in a great improvement in respect to Infantile Mortality in those parts of the county which are mostly concerned.

Until such time that the Notification of Births' Act (1907) is adopted either for the county as a whole, or for the separate authorities, it should be strongly urged that the before-mentioned Ladies' Committees will do much to save a large number of lives annually. Certainly these ladies who are willing to give their assistance, should be approached by



the officers of the local authorities concerned, with a view of forming such committees, before the next dry summer is at hand, with its large number of infant victims. In the Borough of Falmouth such an organisation has been in full working order for some time, and ought always to receive the support it deserves, from both the civic and private sources which are available.

Doubtless other Cornish towns have already commenced a similar campaign against the infant death-rate, but one cannot be too emphatic in advising such as have not, to start a committee at once.

In the Urban District of Barking (Essex) the Boy Scouts are doing valuable service by taking round literature to such houses as, on account of recent births in them, are particularly concerned, the boys receiving their messages at the Health Office.

It is true that the County's exceptionally high Infantile Mortality (129.6 per 1,000 births for the year under review (1911) is due to the extreme conditions of drought which prevailed during the summer months—quite out of all proportion to the rest of the country, which also suffered universally.

That an entirely unusual epidemic (Poliomyelitis) should have visited the county during this particular drought is only further evidence of the abnormal condition of things during the unusually dry summer.

As has been already stated, therefore, a better idea of the county's Infantile Mortality Figures will be furnished from an average of, say, five years: 1907—98; 1908—101; 1909—96; 1910—85; 1911—129.

In the whole County, 867 deaths occurred of infants under one year of age, of which 452 belonged to the Urban Districts, and 415 to the Rural.

## DISTRICTS WITH a HIGH INFANT MORTALITY.

1. St. Austell, U.D.	274	9. Camborne, U.D.	175
2. Redruth, U.D. ...	242	10. Falmouth Borough	175
3. Penryn Borough	237	11. Phillack, U.D.	164
4. Redruth, R.D. ...	196	12. Paul, U.D. ...	162
5. St. Just, U.D. ...	194	13. Hayle, U.D. ...	157
6. St. Ives Borough	188	14. Calstock, R.D. ...	157
7. Helston Borough	186	15. East Kerrier, R.D.	134
8. Penzance Borough	185		

## DISTRICTS WITH a LOW INFANT MORTALITY.

1. Launceston Boro.	42	8. Padstow, U.D. ...	76
2. Launceston, R.D.	54	9. Stratton and	
3. Lostwithiel Borough	58	Bude, U.D.	78
4. Stratton, R.D. ...	58	10. Torpoint, U.D. ...	79
5. Newquay, U.D. ...	66	11. Truro, R.D. ....	79
6. Callington, U.D. ...	68	12. Liskeard, R.D. ...	86
7. Bodmin, R.D.	70	13. Truro City ....	90

There is little doubt that the adoption of the Notification of Births' Act, 1907, and the organisation of committees for infant care, as previously stated, are at least important in those districts which have such high Infant Mortalities.

**Infantile Mortality, 1911.**

ENGLAND & WALES.		CORNWALL.	
Total .....	130	Whole County .....	129
77 Great Towns .....	140	No Great Towns .....	
136 Smaller Towns ...	133	Boroughs and Urban	
England and Wales		Districts	155
less the 213 towns	118	Rural Districts .....	109

Although the County Infantile Mortality figure is not usually so high as that recorded for 1911, and due to obviously exceptional circumstances, it is necessary to draw attention to certain important conclusions to be drawn. The high rate in some rural districts points to the fact that much remains to be done with regard to preventive measures by



education and health visiting. The Urban District of St. Austell has an abnormally high rate for so small a place ; here the supervision ought to be most easy, and the establishment of Ladies' Committees, with some qualified nursing assistance, would furnish an experiment worth trying by the District Council before the next hot and dry summer arrives. One could certainly vouch for the complete success of such a scheme, which would involve the saving of so many infant lives. These remarks also apply to the Redruth Urban District, Penryn Borough, Helston Borough, Redruth Rural District, and the Boroughs of St. Ives and Penzance, etc., all of which have particularly adverse figures exhibited in the foregoing list.

### **Illegitimate Children.**

Out of 6,687 children born in the county during the year, 201, or 3 per cent., were ascertained to be illegitimate. 101 of these births took place in the urban areas, and 100 in the rural, the percentage of the urban, 3.4, being higher than that for the rural, which was 2.6.

Speaking generally throughout the county, the death-rate of illegitimate children is about double that of legitimate ones. This is not because these children when born, as a rule, are more handicapped on account of any debility at birth, but because they are more handicapped by the treatment extended to them afterwards. Many illegitimate children are born of young and healthy parents, perhaps most of them are, and yet, despite the strong physique at birth, these children have often to pay the penalty which is more justly deserved by the persons who wilfully neglect them.

This is another instance of the wastage of infant life at a time when the nation is yearning for children.

Apparently Society, of whatever grade, must refuse them, whilst the State can only concern itself with such as pass the fine filter of the Poor Law.



### **Notification of Births Act, 1907.**

Seeing that no Local Authority may adopt this Act without the approval of the Local Government Board, and that approval can only be given if the particular Authority possesses the requisite staff (nurses, health visitors, etc.) for carrying it out, it is obvious that in Cornwall the control of Infant Mortality cannot be undertaken by means of the Act at the hands of District Councils with, perhaps, the exceptions of two or three larger Boroughs and Urban Districts. It is to be hoped, therefore, in view of the recently organised co-operation of the District Nursing Associations with the County Council in regard to Midwives, lectures on Infant Care, etc., that the County Council might reasonably expect the Local Government Board to approve of the adoption of the Act for the whole county area.

Once the county machinery is in good working order, it would be well to make the necessary application. It is insufficient in Cornwall to seek for the adoption of the Act in urban areas only, as some of the rural districts have occasionally Infant Mortality Rates which are high enough to cause very grave concern were they to be recorded even in urban areas.

The fact that the Act requires the compulsory notification of every still-birth within the same period (36 hours) as that required for the others, is of vast importance. No Local Authority in Cornwall has adopted the Notification of Births' Act.

#### **Still Births.**

Sixteen cases have been notified on the midwives' forms, but the number must have been considerably greater, as the midwives only received complete control towards the end of the year. All the forms are now issued by the County Council, and many more midwives have been added to the roll. The adoption of the Notification of Births' Act, and, finally, the compulsory registration of still-births, after due medical certification, constitute the only safe means of reducing the number of still-births, and lessening negligence, and even crime, for many of these "still-births"



must be instances of "live-births," as I feel sure more frequent and more stringent enquiries would tend to show.

### Deaths from Zymotic Diseases.

The Registrar-General makes a special schedule of these diseases, which include Small-Pox, Scarlet Fever, Measles, Diphtheria, (and Membranous Croup), Whooping Cough, Fever (Typhoid, Typhus, Continued, and other fevers), and Diarrhœa (if of zymotic origin), but does not include certain other diseases which are really zymotic in character.

508 deaths took place in the county due to Zymotic Diseases, giving a Zymotic Death-Rate of 1.54 per thousand of the population. The rate for the Urban districts was 2.03, as compared with a rate of 1.16 for the Rural districts.

For England and Wales it was 1.88, the 136 smaller towns giving a rate of 1.98, as compared with 1.40 for the Rural districts.

The highest zymotic death-rates were at Penryn Borough (4.52), St. Ives Borough (4.17), Redruth Urban (3.88), Redruth Rural (3.16), St. Just (2.97), and St. Austell Rural (2.17); and the lowest at Lostwithiel Borough (nil), Launceston Borough (0.24), Launceston Rural (0.25), Liskeard Rural (0.32), Stratton and Bude (0.33), Stratton (0.40).

It is clear that statistics for a single year under this heading are valueless unless a comparison is made with previous years, since any year might become an epidemic year, which, in its turn, might be succeeded by a year or years of comparative immunity to one or more of these diseases until the immunising effect had diminished and fresh susceptibles had been born, thus causing another epidemic to be due.

### Zymotic Death-Rates.

1911	England and Wales	1.88	Cornwall	1.54
1910	" "	0.99	" "	0.37
1909	" "	1.12	" "	0.53
1908	" "	1.29	" "	0.56
1907	" "	1.26	" "	0.68



**Scarlet Fever.** Five deaths are recorded as due to this disease as compared with eight in the year 1910, being a reduction of three. The disease is generally becoming milder in type and less fatal, although unfortunately the general public are still prone to consider the complaint more to be dreaded than either Measles or Whooping Cough, which is a great mistake, as will be easily seen from the statistics. The distribution of the above five deaths will be readily seen in the tables.

**Diphtheria and Membranous Croup.** There were 73 deaths from these diseases as compared with 39 in the year 1910. In the Urban areas there were 41 such deaths recorded and in the Rural districts 32. The districts most affected were as follows :

URBAN.	RURAL.
Redruth, 7.	St. Austell, 8.
Truro, 7.	Redruth, 7.
St. Just, 6.	Liskeard, 4.
St. Ives, 5.	Camelford, 3.

Diphtheria becomes largely endemic in Rural Districts, and epidemics of it are difficult to control when once established.

**Measles.** Measles caused 17 deaths as compared with 18 last year. Five of the deaths occurred in the St. Austell Rural District, and three in the Borough of Bodmin; these are the only districts in which there were more than two deaths.

**Whooping Cough.** This disease has been largely responsible for raising the Zymotic Death-Rate on account of severe epidemics in the county throughout the year, necessitating the closing of many of the elementary schools.

There were 107 deaths (47 Urban and 60 Rural), whereas in 1910 there were only 23 deaths in the whole year. The fact that the disease proved so fatal ought to be sufficient to impress on all who have to deal with it, that it is not the trivial complaint that it is too readily believed to be.



The most affected districts were as follows :

URBAN.	RURAL.
Falmouth, 11.	St. Austell, 20.
St. Ives, 8.	St. Columb, 9.
Penzance, 7.	Redruth, 8.
Redruth, 6.	Helston, 6.

**Typhus, Typhoid (Enteric) and Continued Fever.** There were 11 deaths from Typhoid Fever as compared with 9 in the year 1910. The only districts registering more than one death were : Penzance, 2 ; and Camborne, 2. These diseases have been slowly disappearing from the county generally, improvements in sanitation being held responsible to a very large extent, although much must be attributed to the early control which is consequent upon the better supervision of health authorities.

**Small-Pox.** No deaths occurred from this terrible disease throughout the year. There is reason to believe, however, that if the county is visited by an epidemic, it will be manifested in a fatal form, due to the lack of immunisation caused by the increasing number of exemptions from vaccination and practically complete absence of re-vaccination.

**Diarrhœa and Enteritis.** During the hot and dry summer months of 1911, the largest number of deaths occurred from this serious disease of young children. Throughout the year 295 deaths occurred from these diseases at all ages, 231 occurring in children under one year of age, as compared with 63 in the wet summer of 1910.

The deaths were chiefly distributed as follows :

URBAN.	RURAL.
Camborne, 34.	Redruth, 41.
Redruth, 29.	St. Austell, 16.
Penzance, 19.	
St. Ives, 16.	
Falmouth, 15.	
Helston, 14.	

Fuller information as to the causes of this large incidence, together with recommendations with regard to further preventive measures will be found under "Infantile Mortality," etc.

**Influenza.** There is a considerable decline in the number of deaths from this disease as compared with the year 1910. There were 31 deaths in 1911 and 53 in 1910. The largest incidence was in the Bodmin Rural District, where there were six fatal cases; the other affected districts generally had not more than one or two cases in each instance.

**Phthisis (Pulmonary Tuberculosis).** There were 410 deaths from this disease, as compared with 405 in 1910.

192 of the cases occurred in the Urban areas as compared with 218 in the Rural districts.

The main distribution of fatal cases of this disease was as follows :—

URBAN.	RURAL.
Camborne, 33.	Redruth, 41.
Redruth, 24.	St. Austell, 29.
Penzance, 20.	Helston, 28.
St. Just, 15.	Truro, 27.
	St. Columb, 21.

Further information with regard to this disease will be found elsewhere in this book.

**Other Tuberculous Diseases (including Tuberculous Meningitis).** In 1911, 134 deaths were registered under this heading as compared with 118 in 1910.

The Rural District of St. Austell heads the list with 23 deaths, the Urban District of Camborne coming next with 12 deaths. The incidence is more or less evenly spread over the remaining 41 districts of the county.

**Cancer and Malignant Disease.** There were 370 deaths recorded from this disease, as compared with 353 last year. 186 of the deaths occurred in persons over 65 years of age, and 148 between 45 and 65. The death-rate per 1,000 of the population was 1.1. 163 of the cases died in the Urban, and 207 in the Rural districts.



**Respiratory Diseases.** There were 41 deaths as compared with 30 deaths recorded as being due to these diseases in 1910.

**Alcoholism.** Only six deaths were registered as due to the effects of alcohol, compared with 20 in the year 1910. This is exceedingly satisfactory, and speaks well in favour of the general inclination during recent years towards a more moderate use of stimulants.

**Diseases and Accidents of Parturition.** There were 28 deaths recorded, as compared with 16 in 1910.

**Premature Births.** 122 infants died during the year on account of this condition, giving a percentage of the total deaths under one year of age, of 14.07.

There is a tendency to consider that the care of the mother and child should only commence seriously at and from the time of birth. Too little attention is given to the health of the women in the later months of pregnancy, and it is due to carelessness in this respect that many a premature birth occurs, with, as a consequence, the early death of the infant.

**Puerperal Fever.** 1911—8 deaths. 1910—5 deaths.

The cases were distributed as follows :—

Redruth Urban District, 1

Truro City, 2.

Penryn Borough, 1.

Saltash Borough, 1.

St. Austell Rural District, 1.

Redruth Rural District, 1.

Calstock Rural District, 1.

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## Part III.

### INFECTIOUS DISEASES.

The figures dealing with the number of cases, classified in age periods, notified in each sanitary district, will be found in Table II., pages i. to xxiii., under Vital Statistics, Part XII.

The Deaths from Infectious Diseases are considered separately under Births and Deaths, Part II.

#### Small-Pox.

Fortunately no case of this disease was notified as occurring during the year 1911. We must realise, however, that the increasing number of exemptions from Vaccination, and the facilities offered for obtaining the same, will some day be responsible for general regret, when we are compelled to face an epidemic of the disease. That there happens to be no case of this dreadful disease in England at any particular time is no excuse for treating the matter lightly; it may be introduced from abroad by means of infected merchandise, or by the actual landing of a case, or a dangerous contact at one of our many ports. It is probably the most infectious of all diseases, and it only requires a nidus, such as that provided by a batch of unprotected persons, for the flame of infection to take thorough hold.

#### Diphtheria, including Membranous Croup.

595 cases were notified, as compared with 390 in 1910, 33 of which were removed to hospital. 291 of the cases occurred in the Rural Districts, of which 10 were removed to hospital, and 304 in the Urban areas, of which 23 were removed to hospital. The most affected districts were:—

Number of Cases Notified per 1,000 of Population:—

Rural Districts.	Rate per 1,000	Urban Districts.	Rate per 1,000
Camelford .....	7.2	Madron .....	10.5
Redruth .....	4.5	Redruth .....	4.7
Helston .....	2.2	Paul .....	4.1
St. Columb .....	1.9	St. Just .....	2.8
St. Austell.....	1.6	Camborne .....	2.7
Truro .....	1.0	Penzance Borough ...	2.1



By the above table it will be readily seen that the main epidemic areas were Madron, Redruth, Paul, and St. Just Urban Districts, and the Rural Districts of Redruth and Camelford.

**Madron Urban District.**—Dr. Wilson, in his Annual Report, says :—“ Diphtheria.—39 cases occurred with 3 deaths, 8 cases in Tolcarne, 1 Wherrytown, 24 Heamoor, 3 Madron Churchtown, and 3 in the country district. This considerable outbreak of Diphtheria all through the different parts of your entire district gave me considerable anxiety. I have to thank Dr. Burnet, County Medical Officer of Health, for coming and assisting me to inquire into its origin. So far as one can discover, the beginning of the outbreak was in Tolcarne, from that it was conveyed to Heamoor, where, with 3 exceptions, only one case occurred in each house. I attribute this to the use of prophalactic injection of antitoxin in all contact cases ; in one case Diphtheria occurred or recurred in the same patient after an interval of 3 months. The schools have been closed and disinfected, the houses and clothing of the infected have been disinfected.

I do think the time has arrived when the County Council should undertake the bacteriological examination of the throats of the school children, so that infected children and carriers of diphtheria might be removed from school. In a small district like this it would not be possible for a Council to pay the ordinary commercial price for an examination of all the children, without which it is difficult to stamp out this disease, which I regret to say is still with us.”

It is clear that the only method of stamping out this disease is by taking the fullest advantage of the Diphtheria Antitoxin Order of 1910. This was recommended, but the question of cost is evidently a great one in the district, as pointed out by Dr. Wilson in his remarks above. In view of this difficulty, which occurs in very many districts, it would certainly be advisable for the County Council to consider favourably the provision of free bacteriological examinations of disease



products for all the Local Authorities. A Sub-Committee of the County Sanitary Committee will shortly meet, with the object of reporting on such a scheme.

**Redruth Urban District.**—Dr. Frank Hichens reports :—  
 “Seven deaths, 51 cases notified, the large majority of a fairly severe type. I have been quite unable to explain why we have had so many cases, the only fact known is that Diphtheria has been unusually prevalent in this and other counties during the last two years ; it has turned up in all parts of the district, and in very few instances has it been possible to trace direct infection as the cause ; most frequently one only in a house has had it, children sitting next to infected ones at school have nearly always escaped. I have inspected the schools, where the sanitary arrangements and general conditions are good. Each case has been isolated, treated with the antitoxin, and the child and other inmates of that house not allowed to return to school until considered safe. Bacteriological swabs from the throat being used when considered necessary. In half a dozen instances, where arrangements could be but very imperfect for treatment at home, we prevailed on the parents to send the children to the Isolation Hospital. On May 25th, as Whooping Cough was very prevalent in the district, and rapidly becoming more so, I closed the Girls’ and Infants’ School at Trewirgie until July 3rd, being also influenced by the fact that the closing would likewise be very favourable for the Diphtheria cases then present.”

The observations given at length in the report for the Madron Urban District would, to some extent, apply here. It would be well to consider the subjects of Infantile Mortality and Sewage Disposal, treated elsewhere in this book, in order to arrive at any conclusion with regard to the origin of the continued prevalence of Diphtheria in this district.

**Paul Urban District.**—Dr. H. Russell Phillips says in his Annual Report for 1911 :— “ It will be observed that we still have Diphtheria in the district, although there have



been few cases since the middle of the year. Antitoxin has been freely used, with good results, one death only being registered from Diphtheria during the year."

There were 25 cases notified, as compared with 26 in 1910; it is fortunate, however, that only one death occurred in the year from this disease.

**St. Just Urban District.**—Of the 16 cases notified, there were 6 deaths, which represents an unusually high mortality from this disease, considering the fact that antitoxin is invariably used. The matter of diagnosis was always difficult in this outbreak, as many of the cases were very atypical, simulating ordinary Tonsillitis, the patients frequently being found well under the influence of the toxin of the disease at the time of seeking medical advice: the ordinary clinical manifestations were often absent, the diagnosis depending entirely on bacteriological examination.

**Redruth Rural District.**—Dr. A. E. Permewan reports:—"Diphtheria.—This has been unusually prevalent, and was responsible for 7 deaths. Considerable popular alarm arose in regard to it, and with reason. In all 82 cases were notified, which included 30 in Gwennap and Stithians, 51 in Illogan, and 1 in Gwinear and Gwithian. The areas particularly affected were Carn Brea Village, Portreath, and Lanner. In regard to Carn Brea, the cases increased rapidly, but the little epidemic was soon over. The outbreak in the Portreath district excited a good deal of interest and criticism. You are aware that the question of sewage disposal there has for years been an ever-recurring subject of discussion. That is a matter which will be referred to later. An additional point which was raised was the inadequate methods employed for purifying the sewage effluent from the works of the Redruth Urban District Council, which discharges into the river flowing down the North Country valley and ultimately reaching the sea at Portreath. It was naturally a nice point to decide which, if either, of these two sanitary defects could be held responsible for the abnormal development of Diphtheria along the line of route. My personal opinion was that the case was non-



proven as regards either of them, and this was practically the view taken by Dr. Burnet, the County Medical Officer of Health, after a minute personal inspection of the conditions prevailing. His report stated that, while there could be no doubt that from a sanitary standpoint these were deplorable, it was impossible to say that they stood in any causative relation to the epidemic. Undoubtedly in taking this view he expressed what is the most modern idea of the way in which Diphtheria spreads. Insanitary conditions may, and probably do, slightly increase the susceptibility to Diphtheritic as well as other infection—in themselves they cannot be proved to be capable of generating the contagion. In no way, of course, does this fact minimise the urgent necessity of dealing promptly with nuisances which have continued too long already, but that direct infection was the real element of importance in this outbreak, as in others, is, I think, quite clear."

**Camelford Rural District.** Dr. Jerome has given a concise account of the school epidemic of 37 cases and 3 deaths, in a special report reprinted in the summary for this district, Part IV. of this book.

#### **Erysipelas.**

Cases notified, 148; 81 from Rural Districts, and 67 from Urban. None were removed to hospital.

#### **Scarlet Fever.**

Cases notified, 441; 53 being removed to hospitals for Infectious Diseases. 252 of the cases occurred in the Rural Districts, of which only one was removed to hospital, whilst 189 occurred in the Urban areas, 52 being isolated in hospital.

### **TYPHUS, TYPHOID (ENTERIC) AND CONTINUED FEVER.**

#### **Typhus Fever.**

Fortunately no case of this disease has occurred in the County during the year. It still occurs on the continent in large centres of population, and occasionally even now, manifests itself in England. It is widely distributed



throughout Central Europe, and especially in Poland. It is common in Northern Africa, in India, China, Mexico, and parts of the United States, but it is practically unknown in Australia, New Zealand, and tropical Africa. In all the countries in which it occurs it shows a tendency to be confined to endemic centres, where it becomes epidemic from time to time. It is most frequent between the ages of 15 and 30, and, like Typhoid, rarely occurs in infants, but we must not lose sight of the fact that, like this latter disease, it may occur in so mild a form that it easily escapes notice. Unlike typhoid, however, the germ of typhus fever is still unknown, and it is quite possible that the disease may become extinct before its causative organism is found. The common body louse plays an important part in its transmission.

#### **Typhoid Fever.**

This used to be confounded with the latter disease, hence its name. There were 94 cases in Cornwall during the year. Improvements in sanitation, however, are responsible for the diminution of the cases notified, but "carriers," or persons who, after recovering from the disease, still impart it to others, constitute a very grave obstacle in controlling it. It is very disconcerting to have to admit that these people may be dangerous to the public when they are in perfect health themselves, and even years (in some instances) after they have recovered from their attack. Dr. Bygott, of Barking (Essex), gives an important example of a two year old child being the cause of an outbreak of Typhoid in adults, although its own illness had been mild enough to escape recognition, the fact of its being a "carrier" only being confirmed after the mischief was done. More strict supervision of water supplies and safeguards against the pollution of rivers by sewage, are important factors in the prevention of this serious disease. There still remains for the careful consideration of the public the great danger associated with the eating of shellfish, and particularly oysters, cockles, and mussels. These shellfish, found at the estuaries of rivers, are naturally more liable to contamination by sewage than most articles of diet; nevertheless, it is astonishing what



little effect this solemn warning has on the consumer, despite the large and undoubted death-rate annually produced by the careless consumption of these otherwise valuable articles of food. Cockles and mussels should be boiled, and never eaten raw; oysters should not be accepted unless it is possible to get evidence of a certified source. Even cooking of these shellfish is a matter for serious deliberation, as this process, although rendering them perhaps less digestible and more difficult to take, yet it does not rob them of palatability; it certainly ensures an absence of active Typhoid bacilli. It is encouraging to know, however, that the better known owners of oyster beds are careful to ensure purification for some period prior to their sale, and we are indebted to the late Dr. Bulstrode, of the Local Government Board, for his interest and influence in securing a better condition of things in Cornwall with the result that some of the best and purest of these shellfish are sent in large quantities to all parts of the country. Of the 94 cases notified, 39 occurred in the Rural Districts, and 55 in the Urban.

#### **Continued Fever.**

In this class comes those illnesses which are associated as the name indicates, with a continued rise of temperature; many of them are in reality genuine cases of Typhoid pursuing an aberrant course, or with the commoner symptoms masked or in abeyance, or perhaps some of them are indistinguishable from Para-typhoid or other febrile conditions; it is, therefore, always advisable to classify these cases along with cases of Enteric or true Typhoid fever. Two cases of Continued and one of Relapsing Fever were notified during the year.

#### **Puerperal Fever.**

Seven cases were notified during the year, all of which were in the Urban areas. The cases occurring up to October were dealt with by the several Medical Officers of Health concerned in their capacity as inspectors for the Local Authority, under the Midwives' Act. Such as occurred during the remaining part of the year were dealt with



by the Inspectresses of Midwives in charge of the County Medical Officer, enquiries being made as to the cause of the outbreaks and the practices of such midwives as were associated with them, the midwives being requested to temporarily cease practice where necessary.

### **POLIOMYELITIS AND CEREBROSPINAL FEVER.**

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An outbreak of the former disease commenced towards the end of July in the Eastern portion of the county, being in reality part of the epidemic first brought to notice in the Holsworthy and surrounding districts of Devonshire. That the two diseases are distinct and separate from each other is obvious from the fact that the course and symptoms of the two complaints are not alike, and whilst in the former disease no causative germ has been discovered, it is beyond all doubt that the *Diplococcus meningitidis intracellularis* of Weichselbaum is the organism responsible for the latter; also that the latter germ could not possibly be associated with Poliomyelitis is clear from the fact this organism will not filter through porcelain, whereas the filtered spinal cord emulsion from a case of Poliomyelitis will cause the same disease when injected into monkeys.

At first the two diseases, being somewhat similar, were naturally confused, and both being rare in this country in acute epidemic form, it is easily understood how the difficulty in diagnosis was increased. Many cases of Poliomyelitis, or Acute Infantile Paralysis, were mistaken for Cerebrospinal Meningitis, or Spotted Fever, but an insistence on a complete pathological examination of the cerebrospinal fluid, when obtainable, was sufficient to establish the fact without any doubt that only one of the two diseases was concerned in the outbreak, and that was Poliomyelitis. The encephalic form of the disease, by its prevalence, was responsible for the greatest difficulties in diagnosis, and for its confusion with Cerebrospinal Meningitis, which it closely resembles at first sight; so common was this form that it would appear necessary to permanently designate the affec-



tion "Polio-encephalo-myelitis," a point upon which much stress was laid by Dr. Frederick E. Batten, of London. In other words, the disease is not, as formerly believed, a simple nervous disease of the spinal cord of the infants, but an acute infective disease of the brain and spinal cord of infants and adults, as we shall see in the following pages.

Polio-encephalo-myelitis, appearing as it does in epidemic form, is obviously a severe Infantile Paralysis, so long well known and thought to be due to simple changes in the grey matter cells of the spinal cord, without any association with infectivity. Now it is known to be caused by a germ which is ultra-microscopical, and so small that it can pass the finest porcelain filter without losing its infective power. Diseases themselves undergo changes in virulence and type, as instance Scarlet Fever, once a serious disease, but only exceptionally so nowadays. It would apparently be nearer the mark to call the disease "infective" rather than "infectious" until we are absolutely certain of a case to case infection. It is still possible that a means of infection other than from one person to another, is the commoner, if not the only method of transmission. In other words, some other agent may enter into the process. Attention, therefore, has been given, as in the case of Malaria, etc., to a possible insect carrier, such as the mosquito, flea, louse, etc., but nothing has been found. Flies have been suspected, but no proof has been forthcoming to justify this mode of transmission, say, on food, etc; flies are associated with filth, but the dirtiest and poorest child is not the one, from the evidence of statistics, to contract this disease, and flea-bitten children were less commonly found among its victims than on the average.

The writer having considered the possibility of dust entering into the process of dissemination and actual infection of the individuals who contracted the disease, supplemented a note sent to the Editor of the "British Medical Journal" on September 2nd, 1911, by making, after his experiences in the Cornwall epidemic, the following observations :—



Points which strongly suggest a dust infection :—

1. Inhaled dust sets up a naso-pharyngitis.
2. A catarrh of the naso-pharynx is observed in the early stages of the acute disease.
3. Mucus from the naso-pharynx inoculated into monkeys produces the disease.
4. Cases occur, for the most part, along the main roads, and in country villages, large towns being comparatively free (better cleansing and use of water-cart).
5. Epidemics occur in hot and dry summers, and mostly in the month of August.
6. The disease, in its epidemic form, in several countries, appears to have advanced "pari passu" with the increase in the use of the motor.
7. Again, some observers have associated cases with railways near which they have occurred.
8. The epidemic subsides in the rainy season.
9. It is clear that cases occur sporadically, and not associated with each other, distances of many miles separating them in innumerable instances, no possible contact having taken place. It is difficult to accept the "healthy carrier," when children in hospital wards with affected children escape, and monkeys in cages with affected monkeys fail to develop the disease.
10. Children in the same bed frequently escape infection. Two cases rarely occur in the same house, and if they do, a common source of infection would appear to exist, rather than transmission from the one case to the other. Again, these cases are frequently in the same stage of the disease, which tends to show that there can be no case-to-case infection, but rather an infection through another medium.
11. A "school infection" may possibly be explained in the same way, scholars being exposed to one source of infection, such as the neighbouring dusty road infected by certain organisms, which may possibly have their origin



in decomposing organic matter (badly cleansed villages affected) in excessively hot and dry summers. Hence, the school is probably not the source, a case-to-case of infection rarely, if ever, occurring.

12. The disease has obviously changed its incidence, the average age of 50 consecutive cases being 6 years, which appears to be high for "infantile paralysis, and may be consistent with the fact that younger children are kept off the roads to a greater extent than heretofore, on account of the increased traffic. Moreover, out of these cases the number of boys affected is double that of girls—a rather significant fact. Even adults now frequently succumb to the disease.

It is important to note that by a dust infection is meant not that the dust itself produces the infective organism, but that it carries it, and transmits it. It seems quite feasible that certain dusty roads may have received the infective agent and others not. What then infects the dust or the particular road on which this dust lies?

It may, of course, be associated with the excreta of animals deposited thereon, or even indirectly with sewage, and that an exceptionally dry summer is required not only to ensure dissemination, but to produce the optimum condition for the germ's existence at all.

*Epidemiology.* Poliomyelitis is an infectious disease of the nervous system, mainly confined to the grey matter of the spinal cord. It is caused by an organism which is ultra-microscopic, and as yet undiscovered, which produces inflammatory changes in the motor nerve cells and surrounding tissue, putting out of action completely or partially, according to the extent of the lesion, such muscles as are supplied by the nerves concerned.

Although animals other than apes and monkeys appear to be immune, it is quite possible that the disease may occur in a form so mild as not to be recognisable; such a hypothesis, however, would prevent the danger of overlooking any possible communicability from animals to man, although the evidence so far is not at all in favour of it.



Epidemics of the acute disease have occurred in recent years in many parts of the world, but sporadic cases of the milder variety, usually termed "infantile paralysis," have always been with us, and still contribute their quota to the out-patient departments of general and children's hospitals. The first epidemic of any consequence was recorded by Medin; it occurred at Stockholm in 1887, and there were 44 cases. Caverly and McPhail recorded 132 cases in Massachusetts in 1894, and 42 cases occurred in Vienna in 1898. Epidemics have increased in number and magnitude from 1900 to the present day, the disease becoming pandemic in Norway and Sweden, and larger epidemics still being recorded in the States of Massachusetts and New York from 1900 to 1910. 1,097 cases with 172 deaths occurred in Pennsylvania in the latter year, as well as 638 cases and 161 deaths in the State of Iowa. In 1910 there were 5,093 recorded cases in the United States, with 825 deaths, a mortality of nearly 14 per cent. In England we have the Bristol epidemic of 37 cases in 1909, with a mortality of 5 per cent.; Carlisle, 34 cases and 5 deaths in 1910; Melton Mowbray, in 1910, with 83 cases and 14 deaths, or 16.8 per cent.; and the Devon and Cornwall epidemic of 1911, with 154 cases, and a mortality of 22.1 per cent.; which are not included in the 73 cases recorded by Soltau as occurring in the three towns of Plymouth, Stonehouse, and Devonport in the same year.

*Career and prospects of persons affected.*—That this disease is one of the most terrible, if not the most terrible, cannot be denied; it has truly been said of it that "it has not the mercy to kill its victims." Those who have been unfortunate enough not to die in an acute attack, are more likely than not to be hopelessly and helplessly paralysed, perhaps in all four limbs, and it may be permanently paralysed in the muscles of the back or of the abdomen, with all the awful consequences which may include physiological disturbances of a distressing nature. Of course this is a picture of one of the worst cases to recover, and all types of the disease may be found gradating from this down to

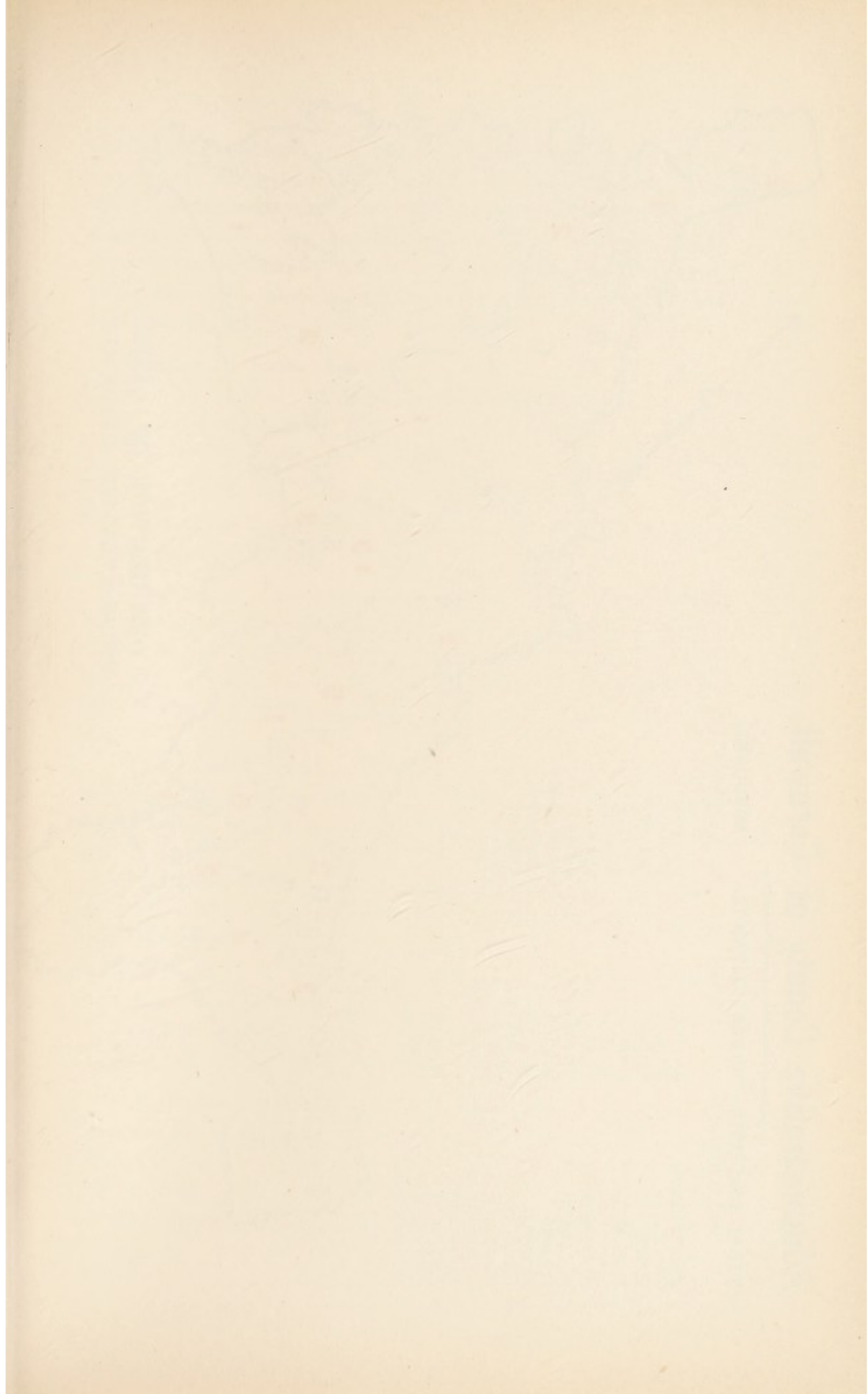


the merest manifestation of a mild attack, or even to such as apparently end in complete recovery. It is therefore necessary to obtain a concise view of the possibilities of help in each individual type. Preventive measures have so far failed with regard to the control of epidemics, but the immediate preventive action, so to speak, which is so necessary in individual cases must be taken more seriously—the prevention of complications. An intelligent nurse, trained in the art of massage, can, with the aid of the physician, and finally with the help of the surgeon, do so much to make the lives of these helpless patients more tolerable, if not actually useful, depending, of course, on the extent of damage caused by the relentless germ which is associated with the disease. During the acute stage, a bad case requires the application of all the skill and common-sense of which the nurse is possessed; the changes are rapid, involving violent cerebral and visceral symptoms, with perhaps attacks of epistaxis, itself alarming, whilst the most excruciating pain is experienced by the patient, only intermitting during the recurrent and welcome delirium. The worst feature is the hyperæsthesia, the areas to be most paralysed subsequently being most affected; the patient constantly cries out to be turned, only to be immediately placed back again, whilst the painful and frequent movement of the bowels robs the victim of his few moments of rest, final paralysis of the affected muscles being the only release from the agony. Flaccid paralysis supervenes, perhaps of both legs, or all four limbs, or of the abdominal muscles, and in the worst cases of the intercostals and muscles of the trunk, the patient rolling helplessly forward with marked dyspnœa if any attempt be made to sit him up. During convalescence the pain only returns on movement, and the necessary administration of enemata contributes to the discomfort of the patient, as a result of the paralytic constipation ensuing. Eventually the unequal paralysis of the opposing muscles of the limbs causes foot-drop, wrist-drop, etc., which require to be corrected by sand-bags, and finally by splints and other contrivances. In every case there is a recovery to some



extent of the paresis, and many months may elapse before the amount of actual paralysis can be estimated. Pressure points are constantly manifested, and the ingenuity of the medical attendant and the nurse must be taxed to a degree in order to avoid them, and yet prevent a limb taking up a plastic and faulty position. Hyper-sensitiveness is still well marked, there being no paralysis of sensation, but, on the other hand, a marked increase of it. No sooner has a device been adopted for correcting the error than an irregular and unexpected return of power is exhibited, which throws the whole apparatus out of gear, and a fresh one has to be invented. To a poor patient, the expense becomes prohibitive, on account of this temporary nature of the leather boots or poroplastic splints, etc., that are used. With constant watching, and the exercise of ingenuity, however, much can be done with all kinds of inexpensive articles to assist in keeping in position the quickly changing limbs, until finally, even after years in some cases, the services of the surgeon may be required to correct by tenotomy and other means, the errors which are then acknowledged to be permanent. Massage is apparently the most efficacious treatment, and ought to be continued throughout. Electricity is of little avail for treatment, but is useful for determining the state of the muscles as regards their degeneracy. Hot baths appear to be indicated, but the most important point for consideration in every case is the absolute necessity of keeping the limbs in a natural position, so that the paralysed muscles are never kept on the stretch by the overaction of their opponents, which may be less paralysed or, as is frequently the case, not paralysed at all. Failure to take this preventive measure is often the cause of important muscles not returning to power. Too many martyrs to this terrible malady are left to coil up in bed, only to become hopeless cripples.

Dr. R. J. Reece made a careful investigation of the Devon and Cornwall outbreaks, and presented a very valuable report to the Local Government Board. In the Cornwall portion, Dr. Reece's record of cases terminated prior to the







end of the epidemic, and included cases brought to notice prior to its commencement. In the following records, only cases actually occurring from the moment the outbreak was discovered have been considered, the acute ones of which were as far as possible visited by the County Medical Officer, who made post-mortem examinations and arranged for the investigation of the pathological products.

Number of cases reported .....	52
Number notified under the Infectious Diseases Notification Act, 1889 .....	24
Number of deaths .....	12
Case Mortality .....	22.6 per cent.

The accompanying map indicates the distribution of the cases which were brought to notice.

The Local Authorities of affected districts, as well as certain others in districts which were not, made timely application to the Local Government Board, for the temporary inclusion of this disease, as well as Cerebro-Spinal Meningitis, in the list of compulsorily notifiable diseases under the Act.

The lack of Isolation Hospital accommodation rendered it impossible, in most districts, to remove the patients from their homes, but disinfection of infected places was carried out by the Local Authorities. No schools were closed on account of the disease, the incidence being for the most part on such as were not of the school attending ages, as will be seen by the following table :—

Age Period.	Number reported.	Case Mortality.
Under Five. ....	29	17 per cent.
5—12 years (inclusive) .....	16	25 per cent.
Over Twelve .....	7	43 per cent.

Of the twelve deaths, 5 were under five years old, 4 between five and twelve, and 3 were over twelve. The tendency to fatality increased with age; therefore, of two adults, both died, whereas the youngest of the children affected generally recovered, with a slight paralysis.



### PHTHISIS (PULMONARY TUBERCULOSIS).

The number of deaths occurring during the year 1911 was 410, as compared with 405 in 1910. Compulsory notifications under the Poor Law Regulations of 1908 numbered 32, and four cases were notified under the Hospital, etc., Regulations of 1911. As the Compulsory Notification of Phthisis only came into force in 1912, there are no records of the actual number of cases existing, but, on the estimation of three persons suffering to one death, we conclude that the minimum number of phthisical people in Cornwall must be about 1,200. Of the 410 deaths, only 192 occurred in the Urban areas, leaving 218 in the distinctly Rural Districts. Since many of these so-called "Urban" areas would be in reality "Rural" in many counties, it follows that the death-rate, 1.25 per thousand living, is high in this agricultural county for a disease which is admittedly more associated with Urban communities.

England and Wales in 1910 recorded only 1.02, the average for the previous ten years being only 1.16. The districts in which this rate ruled high were: Redruth Urban, 2.22; Camborne Urban, 2.08; St. Just Urban, 2.60; Hayle Urban, 3.80; and Redruth Rural, 2.27. It is obvious that industrial phthisis associated with the mines accounts for the high rates mentioned in these districts, and the home-coming of infected miners from abroad must add considerably to the quota directly, as well as indirectly by the number of people they infect. Evidence of the precautions taken in the mines is to be found in the accompanying bill:—

METALLIFEROUS MINES REGULATION ACT,  
1872 and 1875.

(Metalliferous Mines in the Counties of Cornwall and Devon.)

35 and 36 Vict., Cap. 77, and 38 and 39 Vict., Cap. 39.

SPECIAL RULES  
(Drills and Sanitary)

For.....Mine.

The following rules shall be observed so far as is reasonably practicable:—



1. No person shall use or cause or allow to be used in the mine any percussion rock drill unless a water jet or spray or other means equally efficient is provided and used so as entirely to prevent the escape of dust into the air.

2. After blasting in any end, rise, or other place, no person shall return to that place until after the lapse of at least half an hour, unless the air in such place has been cleared of the dust and smoke arising from such blasting by efficient ventilation or other special means, or unless an effective respirator or other apparatus is used to prevent his inhaling such dust or smoke. Blasting shall be so arranged that men working in other places shall be exposed as little as practicable to dust and smoke.

3. In ends, or rises, and as far as practicable in other places, no persons shall remove or cause or allow to be removed, the rock broken if dry and dusty, unless it has been effectively damped so as to prevent the escape of dust into the air during removal.

4. The owner, agent, or manager shall cause all stone breaking machines used at the mine to be provided and kept provided with an efficient watering or other arrangement to prevent the escape of dust into the air, and no person shall work or cause or allow to be worked, any such machine unless such an arrangement is provided and effectively used.

5. The owner, agent, or manager shall cause a sufficient number of suitable sanitary conveniences to be provided above and below ground in suitable and convenient places for the use of the persons employed, and to be constantly kept in a cleanly and sanitary condition, and no person shall relieve his bowels below ground elsewhere than in those conveniences. No person shall soil or render unfit for use in any way any convenience or sanitary utensil or appliance provided for the use of the persons employed. Pump cisterns, sumps, and water accumulations in the mine shall not be directly or indirectly used for the purpose of Rule 5 as a sanitary convenience.



6. It shall be the duty of the owner, agent or manager to see that all plant, material, and other things necessary to enable the above rules to be carried out are provided and maintained in working order, and to appoint sufficient competent officials to enforce the requirements of the rules, and for this purpose to assign to each his respective duties.

It shall be the duty of the officials so appointed to see that the rules are observed by all persons employed in the mine, and to carry out the duties assigned to them.

It shall be the duty of all persons employed in the mine to comply with the requirements of the rules and with such instructions as may be given to them by the officials with a view to such requirements being carried out.

Name of the Mine .....

Situation of the Mine .....

County .....

Name and Address of Owner .....

Name of Agent or Manager .....

Too much attention has of late been given, and is still being given, to the tubercle bacillus, and the phthisical patient, and too little thought as to their origin—the factory which produces them, so to speak. It is useless to hope to get rid of anything by extermination, if it is allowed to be produced practically unchecked.

The problem of Consumption is largely the problem of Housing, yet bad housing is suffered to continue, with all its evils, whilst the disease itself is fought as it arises, only to be replaced by repeated reinforcements from its certain source. True it is that poverty, industrialism, alcoholism, etc., are, in some instances, causative agents, the first of these being frequently associated with bad housing, the want of cubic space, light, ventilation, fresh air, and cleanliness. The Housing and Town Planning Act, 1909, is not too severe, but is severe enough to become impossible in certain districts; houses must be closed as unfit for habitation, yet Local



Authorities must make provision for the population displaced, with insufficient money to do so, and inability to borrow, on account of the present condition of their rates, and the general poverty of their districts. Houses have thus to be left in an insanitary state, and consumption further given its chance. It is a matter of finance, and if sufficient money were handed over to responsible authorities to enable them to immediately erect workmen's dwellings and secure a perfect housing system, with full opportunities for keeping it perfect by a rigid application of the Housing Acts, consumption would soon be a thing of the past. Speaking generally, the disease is not hereditary, but only the tendency to catch it is transmitted from parent to child; this tendency can be minimised by raising the resistance, and this can always be done by hygienic surroundings, or, in other words—proper housing. Now, money is about to be available for giving consumptives sanatorium treatment, but how much good will be undone when patients return to their insanitary homes, only to re-develop the disease, if, as it rarely happens, it is cured, and to rekindle it if it is arrested? We must be careful not to spend too much public money on the less important matters, and leave the important untouched; to cure consumption is good, but to prevent it is better. The Death-Rate from Phthisis in England and Wales per 1,000 persons living dropped from 1.426 in 1895 to 1.140 in 1905, and from 2.7 for the decennium 1851—1860 to 1.3 for the decennium 1891—1900, due obviously to improvements in the general hygienic surroundings. To what extent would it drop, then, if we had proper housing for the masses?

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## Part IV.

Digest of Annual and Special Reports on the following Districts, by their respective Medical Officers of Health.

No. of District.	Sanitary District.	Population, 1911.	Medical Officer of Health.
RURAL.			
1.	Stratton .....	4,924	Dr. D. A. Chamberlain
2.	Launceston .....	7,544	„ C. G. Gibson
3.	Calstock .....	4,881	„ A. Bowhay
4.	Boscastle .....	2,292	„ C. Wade.
5.	Camelford .....	5,093	„ E. J. Jerome
6.	Liskeard .....	15,349	„ W. Nettle
7.	St. Germans .....	12,274	„ R. T. Meadows
8.	Bodmin .....	10,357	„ A. G. Salmon
9.	St. Columb .....	11,262	„ S. McMahan
10.	St. Austell .....	32,707	„ W. Mason
11.	Truro .....	20,515	„ T. M. Bonar
12.	Redruth .....	18,004	„ A. E. Permewan
13.	East Kerrier .....	8,009	„ J. Blamey
14.	Helston .....	17,192	„ F. Chown
15.	West Penwith .....	11,165	„ J. R. M. Richmond
16.	Scilly Isles .....	2,097	„ W. B. Addison
	Total Rural .....	183,665	
URBAN.			
17.	Callington .....	1,713	Dr. H. Davis, Jr.
18.	Stratton and Bude .....	2,979	„ T. A. King
19.	Launceston .....	4,117	„ A. Budd
20.	Liskeard .....	4,371	„ W. Nettle
21.	Torpoint .....	4,283	„ S. G. Vinter
22.	Looe .....	2,718	„ J. E. Webb

No. of District.	Sanitary District.	Population, 1911.	Medical Officer of Health.
URBAN.			
23.	Saltash .....	4,130	„ G. Meadows
24.	Bodmin (including Gaol and the Asylum)	5,734	„ B. G. Derry
	Do. excluding do.	(4,124)	
25.	Lostwithiel .....	1,373	„ W. M. Thomas
26.	Wadebridge .....	2,339	„ J. E. Pellow
27.	Truro City .....	11,325	„ H. C. Sharp
28.	Penryn .....	3,092	„ J. Blamey
29.	Falmouth .....	13,136	„ A. Gregor
30.	Helston .....	2,938	„ M. R. Taylor
31.	St. Ives .....	7,179	„ J. M. Nicholls
32.	Penzance .....	13,488	„ R. C. Lawry
33.	Padstow .....	2,480	„ F. Harvey
34.	Newquay .....	4,415	„ A. Hardwick
35.	St. Austell .....	3,365	„ W. Mason
36.	Redruth .....	10,815	„ F. Hichens
37.	Camborne .....	15,829	„ J. T. Thomas
38.	Phillack .....	3,611	„ Z. B. Mudge
39.	Hayle .....	1,028	„ Z. B. Mudge
40.	Madron .....	3,703	„ W. R. Wilson
41.	Paul .....	6,014	„ H. R. Phillips
42.	Ludgvan .....	2,213	„ H. R. Phillips
43.	St. Just .....	5,753	„ R. G. Nesbitt.
Total Urban .....		144,141	
County Total ...		327,806	



## STRATTON (R.D.)

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M.O.H.—D. A. CHAMBERLAIN, B.A. (Cantab.), M.R.C.S.,  
L.R.C.P. (Lond.)

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Area, 53,264 acres. Population, 4,924.

*Births*, 102 (56 male, 46 female). Birth-Rate, 20'71.

*Deaths*, 50 (21 male, 29 female). Death-Rate, 10'13.  
Infant Mortality, 58'8. Zymotic Death-Rate, 0'40.

*Housing*.—Systematic inspection under Housing and Town Planning Act, 1909, was undertaken in conjunction with the Sanitary Inspector in various parts of the district, including the Morwenstow area. Housing accommodation good as a rule, but a few small up-to-date houses are required. No houses were closed under the Act, and only two cases of overcrowding were dealt with. No housing and town-planning schemes are in contemplation.

*Water Supply*.—Generally good. Four certificates were given of water supply for new houses. Two wells condemned after analysis of the water.

*Drainage, etc.*—No sewage disposal, scavenging being done by carting material away where necessary. Drainage good. Cess-pits are generally in use, and ashes and sand in addition to soil, are used.

No sanitary work recommended in previous years remained undone at the end of 1911. House refuse not removed by local authority.

*Bakehouses*.—Two, unregistered. *Slaughter-houses*.—Five, unregistered.

*Dairies, Cowsheds and Milkshops*.—Mostly well kept, and have been inspected both by the M.O.H. and Sanitary Inspector: there is no registration.

*Common Lodging Houses*.—Nil.

*Offensive Trades.*—Nil.

*Vaccination.*—Number of unvaccinated infants on the increase.

*River pollution.* Below Stratton by sewage from Urban sewage works. Since remedied after complaints from owners of fields on both sides of the river.

*Infectious Diseases Prevention Act 1890.*—Adopted.

*Public Health Act Amendment Act 1890.*—Not adopted.

*Isolation Hospital.*—8 beds with the Urban Authority jointly.

#### REMARKS.

Dr. Chamberlain comments on his favourable health statistics, but regrets, and rightly too, that slaughter-houses, dairies, etc., are still unregistered. For the first time for several years no school has had to be closed for infectious disease.

#### LAUNCESTON (R.D.)

M.O.H.—CHARLES GIBSON, M.B., C.M. (Edin.)

Area, 73,187 acres. Population, 7,544.

*Births*, 147 (93 male, 54 female). Birth-Rate, 19·4. Infant Mortality, 54·4. Zymotic Death-Rate, 0·25.

*Deaths*, 78 (32 male, 46 female). Death-Rate, 10·3.

*Housing.*—Preliminary inspections have been made and also arrangements for making and recording methodical inspections under the Town Planning Act. General house accommodation fair and adequate for requirements of working classes. No overcrowding. One house closed under the Act. Many houses repaired and made sanitary without formal notice. 5 new cottages have been built during the year.

*Water Supply.*—Satisfactory. Springs and wells.



*Drainage, etc.*—Satisfactory. Many deep privies have been abolished and pails substituted.

*Bakehouses.*—None. *Dairies, Cowsheds and Milkshops.* No milk shops in the district. Farmhouse dairies not registered.

*Common Lodging Houses.*—Nil. *Offensive Trades.*—Nil.

*Vaccination.*—No remarks. *River pollution.*—No complaints.

*Infectious Disease Prevention Act 1890.*—Not adopted.

*Public Health Act Amendment Act 1890.*—Not adopted.

*Isolation Hospital.*—None provided.

#### REMARKS.

Dr. Gibson comments on the decline of the population:—  
 “From 1891 to 1901 the decline was 1,139, and had the same rate continued during the last ten years, the population of the district in 1911 would have been well below 7,000. It proved however to be 7,544, a decline of only 254 since 1901. From this it appears that those conditions which for so many years have caused a steady and continuous decline in the population of this and other rural districts are no longer so predominant; any further considerable decrease appears improbable.” Tuberculosis apparently ripe in the district, one death in six being caused by this disease.

The hopes of the medical officer with regard to the free examination of Phthisical sputum at the hands of the County Authority, will probably soon be realised having in view the administration of the National Insurance Act. It would be better also if that Authority would undertake the examination of all pathological products free of charge; perhaps this may be expected in the near future. With regard to Isolation Hospitals, it is a matter of much regret that the local authority is unduly apathetic, as evidenced by their failure to meet the Launceston Urban Council when

invited to discuss the question of the formation of a Joint Hospital Board, notwithstanding their Medical Officer's remarks under "Scarlet Fever."

### CALSTOCK (R.D.)

M.O.H.—Albert Bowhay, M.D., D.P.H.

Area, 5,830 acres. Population, 4,881.

*Births*, 108 (61 male, 47 female). Birth-Rate, 22'12.

*Deaths*, 84 (54 male, 30 female). Death-Rate, 17'20.  
Infant Mortality, 157. Zymotic Death-Rate, 1'45.

*Housing*.—133 inspections were made under the Town Planning Act. General house accommodation satisfactory. 5 cases of nuisances due to overcrowding abated. One house closed. Bye-laws for new streets and buildings.

*Water Supply*.—Fairly satisfactory. At Newbridge Hill, Gunnislake, 400 feet of 3-inch water mains laid and fitted with flush-out valve. At King Street, new inspection chamber fixed (fire emergency also.) At Dimson 1,000 feet piping cleaned and repaired. Many improvements contemplated (resolution) by the Council.

*Drainage, etc.*—Sewers maintained in good condition, new pipes being laid where necessary. 3 new inspection chambers at Gunnislake. House refuse removal and street cleaning at Calstock and Gunnislake satisfactory. 2 W.C.'s and 5 pail closets constructed, 4 W.C.'s repaired and a privy cess-pit abolished.

*Bakehouses*.—Satisfactory and registered. *Slaughter houses*.—Satisfactory and registered. Bye-laws adopted.

*Dairies, Cowsheds and Milkshops*.—Registered and regularly inspected where necessary.

*Common Lodging Houses*.—One, about to be registered. (Bye-laws prepared).



*Vaccination.*—"Wholesale exemptions."

*River pollution.*—None reported.

*Infectious Disease Prevention Act 1890.*—Adopted.

*Public Health Act Amendment Act.*—Adopted.

*Isolation Hospital.*—Nil.

#### REMARKS.

The Infantile Mortality Figure for the year under consideration is high for a Rural District, but singularly enough only four of the 17 deaths were due to Zymotic disease, five being due to premature birth.

Dr. Bowhay's attention to street cleansing, mentioned in his report, will however do much in conjunction with improved refuse removal methods, and the conversion of insanitary privies, to prevent a high rate from Zymotic diarrhœa so prevalent in other parts of the county.

A detailed report on the water supply of Delaware Council School was made to the Rural District Council. The County Education Authority have been approached, and it is to be hoped that a constant supply will be provided from the main as soon as possible, as there is no doubt that the claims of the Medical Officer are justified.

#### BOSCASTLE (R.D.)

M.O.H.—CHARLES WADE, M.R.C.S. (Eng.) L.R.C.P. (Lond.)

Area, 17,368 acres. Population, 2,292.

*Births*, 47 (26 males, 21 females). Birth-Rate, 20'5.

*Deaths*, 27 (15 males, 12 females). Death-Rate, 11'77.  
Infant Mortality, 106. Zymotic Death-Rate, 0'43.

*Housing.*—Has inspected housing as occasion required. General housing accommodation of district very fair, but not

quite equal to required amount. No houses closed under the provisions of the Town Planning Act. More workmen's cottages wanted.

*Water Supply.*—Abundant, springs and wells well protected from pollution. Boscastle reservoir recently added to and a further enlargement scheme prepared and the work in progress. Supply at Trevena and Treknow short and *must* be supplemented.

*Drainage, etc.*—No sewers. Cess-pits in larger houses and pails in cottages. Scavenging not done by the Local Authority.

*Bakehouses.*—Two, well kept and registered. *Slaughterhouses.*—5 private ones, not very satisfactorily kept and not registered.

*Dairies, Cowsheds and Milkshops.*—No registered dairies: many private ones for small quantities.

*Common Lodging Houses.*—None. *Offensive Trades.*—None.

*Vaccination.*—Exemptions common, the M.O.H. expressing surprise that there is any left to be done.

*River pollution.*—Nil.

*Infectious Diseases Prevention Act 1890.*—Adopted.

*Public Health Act Amendment Act 1890.*—Not adopted.

*Isolation Hospital.*—None, and no disinfecting apparatus.

#### REMARKS.

Dr. Wade comments also on the school offices at Tintagel, but this school is condemned by the County Council and will shortly be replaced by a new one, the site having already been fixed.

An organised systematic inspection of this district with regard to housing should be attended to, to satisfy the



conditions of the Town Planning Act 1909, having regard to the shortage of houses for the working classes.

A pleasing feature of the report is the absence of Zymotic deaths in Infants under one year old, especially considering the hot and dry summer of 1911.

### CAMELFORD (R.D.)

M.O.H.—ERNEST J. JEROME, L.R.C.S., L.R.C.P., L.M.

Area, 30,993. Population, 5,093.

*Births*, 119 (71 males and 48 females). Birth-Rate, 23'8.

*Deaths*, 72 Death-Rate, 14'13. Infant Mortality, 117. Zymotic Death-Rate, '98.

*Housing*.—151 routine inspections. 11 certificates granted for new houses.

*Water Supply*.—St. Breward has a constant supply from the Bodmin main. Improved water supply for Camelford in process of adoption. Chief supply of district, wells and springs.

*Drainage, etc.*—Camelford and a portion of Delabole and St. Teath are drained. Pail system general. Cess-pits, etc., are still in use in parts of the district, but to a considerably less extent.

*Bakehouses*.—Five—all clean. Unregistered. *Slaughter houses*.—Eleven in number. Well kept, but not registered.

*Dairies, Cowsheds and Milkshops*.—These are not registered.

*Common Lodging Houses*.—One well supervised. *Offensive Trades*.—Nil.

*Vaccination*.—Exemption becoming more common.

*River pollution*.—The Jump, a tributary of the Camel, polluted with China Clay from Stannon, but the North Cornwall China Clay Co. have remedied the evil.

*Infectious Diseases Prevention Act 1890.*—Not adopted.

*Public Health Act Amendment Act 1890.*—Not adopted.

*Isolation Hospital.*—Nil.

#### REMARKS.

The Infant Mortality Rate is rather high for a rural district.

Systematic inspection of the district with regard to housing is imperative. This would prove that more houses are necessary for the working classes. Some regard should be paid to the industrial developments of the district, whereby encouragement may be given to them by supplying the necessary needs in the matter of housing: for instance, men walk from Camelford to work at Stannon at the North China Clay works and back again at night, a distance to be covered daily of several miles, when suitable cottages near this neighbourhood would obviate these hardships and help the district towards future development. The following special report by Dr. Jerome was endorsed as to its conclusions by the County Medical Officer, who was asked by the Board of Education to submit a report also on the advisability or otherwise of retaining the school premises:—

#### **Special Report on Diphtheria.**

“The continuance of Diphtheria from the year before, in which were notified 18 cases, claims our chief attention, and as there has been a deal of criticism with regard to the connection of this disease with the Elementary School at Camelford, I will endeavour, as clearly as I can, to point out to what extent this school was the cause, and what influence it had on the epidemic. It is now generally known that diphtheria is caused by a germ called the Klebs-Löffler bacillus, but it is not generally known that this germ cannot start “de novo,” i.e., it cannot come out of nothing, and any amount of insanitary conditions by themselves cannot bring it into existence no more than turnips can grow in a



field without seed. It must come from a pre-existing germ and must be imported, and when imported into certain insanitary conditions, it multiplies by millions and becomes virulent. To illustrate this, a person may get the germ from anywhere and carry it about in his throat for weeks, where it may remain dormant and harmless, and eventually die, unless it meet with favourable conditions for its multiplication and activity, such as a lowered vitality of the person from any cause, and certain, not all or any peculiar insanitary conditions, and it is quite possible that this same person may harbour the infection and be capable of communicating it without himself suffering. That this school supplied this required and particular condition was concluded from the following reasons :—

- (1) That when the school was closed the disease subsided.
- (2) That although children were sent to their homes suffering from the disease, and the rest of the family also kept at home, even with the imperfect isolation obtainable in most of the cottages, the disease did not spread to other members of the family. This would suggest that the infection did not come from their home surroundings, although many of the homes were more or less insanitary.
- (3) That with only 5 exceptions all the cases had been attending the day school or the evening classes, and 4 of the 5 cases were caused by contact with infected school children.
- (4) That no child or scholar attending the other two schools at Camelford was affected.

These facts clearly point to the school as the factor in generating and disseminating the disease, no matter where the germ originally came from. The school has been condemned by different authorities, and amongst other defects it was shewn to be badly lighted, insufficiently warmed, damp and badly ventilated, also the offices were badly



situated under the existing circumstances, the means for flushing being inadequate and very inconvenient. Children living under such unhealthy conditions get pre-disposed to infectious disease, and it is obvious that should any infectious disease be imported into a school where such conditions exist, it would be more likely to spread from there and more difficult to deal with than if the school were in a sanitary state and up to modern requirements. During the year the school was closed three times for diphtheria, and in this connection it has been stated that the Local Government Board and other sanitary experts do not, as a rule, advise or encourage closure of schools for epidemics. That is so, but the advice is given on the understanding that the schools in question are, from a healthy and sanitary point of view, beyond reproach, which was not so by any means in this case. The infant room, which I consider was the chief cause of the trouble, has been dealt with, but there still remains much to be done. In combating this epidemic, I have frequently visited the school, and any suspicious case of sore throat has been immediately sent home and isolated as well as could be done under the circumstances. Disinfectants, supplied by the District Council, have been freely used, both at the school and at the children's homes, and no child has been allowed back to school unless his or her throat had been bacteriologically examined, and a negative result obtained. The cost of these examinations has been borne by the District Council.

Out of the 47 cases, there have been only 3 deaths, this low death-rate being mainly due to the early and persistent use of antitoxin, which has also been supplied by the District Council. The other diseases mentioned as notified were of a sporadic nature, and did not spread. How they originated I do not know."

There is not the slightest doubt that this school building is totally unfit for the purposes, and constitutes a danger to the health of the children.



**LISKEARD (R.D.)**

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M.O.H.—WILLIAM NETTLE, M.R.C.S., L.R.C.P. (Lond.)

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Area, 102,018 acres. Population, 15,349.

*Births*, 337. Birth-Rate, 21'95.

*Deaths*, 218. Death-Rate, 14'20. Infant Mortality, 86'05.  
Zymotic Death-Rate, 0'32.

*Housing*.—499 Systematic inspections made throughout the year. Some areas have bad accommodation for the housing of the working classes. 8 cases of overcrowding dealt with. One house has been closed under the Housing and Town Planning Act, 50 repaired after notice from the authority.

*Water Supply*.—25 Certificates of satisfactory water supply given for new houses. Portions of the districts of St. Dominic, St. Ive, Linkinhorne and Cheesewring, are without an adequate supply of pure drinking water. Shallow wells are abundant, many of them liable to contamination. Springs and deep wells are found in various parts of the district. At Polperro the water supply has been extended and 3 stand pipes erected.

*Drainage, etc.*—Small towns and large villages have sewers to the sea or to favourable places for land irrigation. Cess-pits constitute main method of excrement disposal. Recommended that the districts of Pensilva, Rilla Mill and Golberdon be drained. New sewers have been laid at Common Moor, Menheniot. Drainage of Pelynt and St. Cleer contemplated.

*Bakehouses*.—Satisfactory. *Slaughter-houses*.—Registered and satisfactory.

*Dairies, Cowsheds and Milkshops*.—Inspected (100 visits). Some cowsheds require re-construction.

*Vaccination*.—Considerable number of exemptions.

*River pollution.*—Nil.

*Infectious Diseases Prevention Act 1890.*—Adopted.

*Public Health Act Amendment Act.*—Adopted.

*Isolation Hospital.*—Nil.

#### REMARKS.

Dr. Nettle gives a complete record of the housing in different parishes, setting out the defects found and the action taken by the owners and the Rural District Council. Such information is extremely valuable, and if these records are kept from year to year supplemented by notes as to the action taken, the housing problem in this Rural District should be rendered much less difficult. The attention of the District Council should be directed towards the unsafe method adopted for excrement disposal in certain districts. If privies are only emptied when full, the Council should take the work in hand to ensure efficiency.

#### ST. GERMANS (R.D.)

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M.O.H.—R. T. MEADOWS, M.D., C.M., D.P.H.

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Area, 41,763 acres. Population, 12,274.

*Births*, 229. Birth-Rate, 18'65.

*Deaths*, 169. Death-Rate, 13'76. Infant Mortality, 104'8. Zymotic Death-Rate, '48.

*Housing.*—Continuous systematic inspection. Three closing orders made under the Act. General house accommodation fairly good.

*Water Supply.*—1,172 houses supplied from Council's mains on four services. Kingsand has insufficient supply, especially in higher parts: Council's scheme is under con-



sideration, *i.e.*, to bring water from a source  $\frac{3}{4}$  mile away. Some wells and springs dried up in the exceptionally dry weather of 1911. Minard Cross and the Cutmeer Saw Mills have been given an adequate supply by the Earl of St. Germans.

*Drainage, etc.*—The village of St. Stephens is still without sewerage. Also Kingsand and Cawsand require drainage schemes. Nine new earth-closets have been built and 34 other forms of conveniences, ashpits, etc.

*Bakehouses*, 14—all registered. *Slaughter-houses*, 13—all registered.

*Dairies, Cowsheds and Milkshops*, 90—all registered and regularly Inspected.

*Vaccination.*—Decreasing owing to the ease in obtaining exemption orders.

*River pollution.*—Nil.

*Infectious Diseases Prevention Act 1890.*—Adopted.

*Public Health Act Amendment Act.*—Adopted.

*Isolation Hospital.*—Nil.

#### REMARKS.

Antony Passage water supply has apparently received no attention, and Tideford water supply should be examined with regard to the deep well syphon arrangement. Dr. Meadows speaking of the drainage of the village of St. Stephens, says:—"It is still without sewerage and as stated in my last report, is in a deplorable condition." It is hoped that the District Council will consider this as a matter of extreme urgency. Similar attention is required at Kingsand and Cawsand.

**BODMIN (R.D.)**

M.O.H.—A. G. SALMON, M.D. (Lond.)

Area, 85,087 acres. Population, 10,357.

*Births*, 211. Birth-Rate, 20'6.

*Deaths*, 139. Death-Rate, 13'42. Infantile Mortality, 70. Zymotic Death-Rate, '96.

*Housing*.—Systematic inspections are made. General housing accommodation fair; sufficiency in number but not in size and quality. One case of overcrowding at Church Hill, Port Isaac.

*Water Supply*.—Port Isaac is still without an adequate water supply, as also is the village of Rock. Deep and shallow wells constitute supply in scattered districts.

*Drainage, etc.*—Trewetha surface drainage was faulty, but has been remedied. Rock drainage should be undertaken. No sewage disposal. Some W.C.'s, many privies, and some houses without any conveniences whatever, *e.g.*, Port Isaac.

*Bakehouses*.—One only (registered). *Slaughter-houses*.—Two (registered).

*Dairies, Cowsheds and Milkshops*.—23, regularly inspected. Three dairies, etc., registered.

*Common Lodging Houses*.—Nil. *Offensive Trades*.—Nil.

*Vaccination*.—Greatly on the decrease owing to facility for obtaining exemptions.

*River pollution*.—Port Isaac stream, the Fowey River and Camel River (industrial refuse, mines, etc.)

*Infectious Diseases Prevention Act 1890*.—Adopted.

*Public Health Act Amendment Act 1890*.—Adopted.

*Isolation Hospital*.—Nil, but provision contemplated.



## REMARKS.

It would be an advantage if the Annual Report of the M.O.H. could be printed. Much requires to be done in the matter of water supply, drainage and housing at Port Isaac; the leat is constantly polluted and the discharge of foul matter on the shore in the running stream is dangerous. Many houses should be condemned absolutely, as they render their occupants much predisposed to Phthisis. Some have no closet accommodation, the excreta being thrown into the stream, a method which must be deplored. It is hoped that the District Council will give these items the fullest consideration because of their extreme urgency. Similarly the Rock water supply and with it its drainage are still wanting that attention which is due from the District Council, and it is hoped that their contemplated scheme will be at once proceeded with if it is found to satisfy the demands of the place.

**ST. COLUMB (R.D.)**

M.O.H.—S. McMAHON, L.R.C.P., L.K.C.S., L.M.

Area, 77,028 acres. Population, 11,262.

*Births*, 240. Birth-Rate, 21'31.

*Deaths*, 181. Death-Rate, 16'07. Infantile Mortality, 112'5. Zymotic Death-Rate, 1'15.

*Housing*.—275 inspections made. General condition of housing accommodation considerably improved but still not adequate, especially in St. Columb and St. Eval. Two houses have been condemned and four renovated.

*Water Supply*.—St. Columb town's water supply is totally inadequate and requires immediate attention. St. Columb Minor supplied by Newquay with excellent water is in a much better position, but more W.C.'s ought to be served, there being only about 40 per cent. connected.

*Drainage, etc.*—Sewerage systems of St. Columb and St. Columb Minor are satisfactory. At Crantock a drainage scheme is contemplated and should be hurried on. At Summercourt, attention to drainage is required as it has been associated in the past with recurrent outbreaks of Diphtheria.

*Bakehouses.*—Not registered. *Slaughter-houses.*—Not registered.

*Dairies, Cowsheds and Milkshops.* Dairies registered and regularly inspected. There is much to be desired in the condition of the cowsheds and cleanliness in milking.

*Common Lodging Houses.*—Nil. *Offensive Trades.*—Nil.

*Vaccination.*—Exemption claims increasing.

*River pollution.*—Nil.

*Infectious Diseases Prevention Act 1890.*—Adopted.

*Public Health Act Amendment Act 1890.*—Not adopted.

*Isolation Hospital.*—Nil.

#### REMARKS.

Diphtheria was prevalent during the year, hence all possible advantage should be taken of the Diphtheria Antitoxin Order of 1910, in order to prepare for further possible outbreaks. The Dairies, Cowsheds and Milkshops Order 1885, 1886 and 1899 should be taken much more seriously. The matter of St. Columb water supply is exceedingly urgent, as apart from the consideration of domestic use, much in the way of efficient drainage depends upon it.

#### ST. AUSTELL (R.D.)

M.O.H.—The late WILLIAM MASON, L.R.C.S., L.R.C.P.,  
L.M., L.A.H. (Dublin).

Area, 58,316 acres. Population, 32,707.

*Births*, 744. Birth-Rate, 22'71.

*Deaths*, 479. Death-Rate, 14'64. Infantile Mortality,  
116'9. Zymotic Death-Rate, 1'55.



*Housing.*—Systematic inspections at Roche and St. Ewe, etc. Improvement generally, but 13 cases of overcrowding reported. No closing orders made under the Town Planning Act. 17 houses repaired. 85 new houses erected. Workmen's cottages required to be erected at Fowey.

*Water Supply.*—Reservoir at Penwithick capable of holding 600,000 gallons, is completed, and prevented a water famine during the year. Tywardreath and St. Blazey have improved supply from Innis Moor. Also about 160 feet of 2-inch mains have been laid at Par Green, and at Polkyth about 300 feet.

*Drainage, etc.*—Generally improved and extended. At Polkyth some 300 feet of 6-inch sewer laid. At Fowey, a new 9-inch sewer has been laid and connected to the main sewer. Privies, etc., kept in better order than in previous years; the division of responsibility re cleansing causes difficulties in cases in which one convenience is in use for two or more houses.

*Bakehouses.*—Registered and satisfactory. *Slaughterhouses.*—Registered.

*Dairies, Cowsheds and Milkshops.*—Dairies registered.

*Common Lodging Houses.*—Nil. *Offensive Trades.*—Nil.

*Vaccination.*—Exemptions increasing.

*River pollution.*—China-clay refuse.

*Infectious Diseases Prevention Act 1890.*—Adopted.

*Public Health Act Amendment Act 1890.*—Adopted.

*Isolation Hospital.*—Nil.

#### REMARKS.

The Housing difficulty is being met by private owners in certain parts, as instance the frontispiece Plates I. and II. of this report, but there is much room for improvement in the vicinity of Fowey; at Lescrow, however, a row of cottages is about to be built, as reported by the Medical

Officer. Thirteen cases of Poliomyelitis were notified in this district, being the largest number in any district of Cornwall, Urban or Rural. Attention should be given where possible to the dust nuisance which is excessive in the china clay districts and worse than that in most parts of Cornwall. One might reasonably associate the very excessive incidence of Poliomyelitis cases, to this cause, which may be diminished, at any rate, by special road treatment in villages and the use where possible, of the water-cart.

### TRURO (R.D.)

M.O.H.—T. M. BONAR, M.B., M.S., D.P.H.

Area, 88,236 acres. Population, 20,515.

*Births*, 379. Birth-Rate, 18'4.

*Deaths*, 318. Death-Rate, 15'5. Infantile Mortality, 79.1. Zymotic Death-Rate, '48.

*Housing*.—Systematic inspections at Ladock, Tregoney and St. Mawes. Insufficiency of cottages, and strenuous action under the Town Planning Act, would tend to increase the evil by causing too many to be closed. 10 were closed during the year under the Housing Acts, representations, etc., on the required forms, being duly sent to the County Council were necessary in accordance with the Town Planning Act 1900.

*Water Supply*.—The large scheme for the supply of Blackwater, Mithian, Trevellas Downs, and other parts of the parish of St. Agnes, is now practically completed. The scheme for the supply of Perranporth is before the L.G.B. Two new wells have been sunk by the Council, and 10 by private owners. Water supplies have been improved at Coosecca, Portloe, Penhallow, Goonhaverne, and other parts by the Council, and other places are under consideration. Two samples of water were taken and considered satisfactory. Several supplies have been improved by private owners.



*Drainage.*—Branch sewers have been made at St. Mawes and Grampound Road, and schemes for the improvement of existing schemes are to be carried out at St. Agnes. Improvements are to be made to the drainage at "The Green," Probus. Better drainage is required at Perranporth. 30 new privies have been constructed by owners, which have been mostly on the "pail" or "pit" system.

*Bakehouses.*—Registered—33 inspections. *Slaughterhouses.*—Not registered. Bye-laws being adopted.

*Dairies, Cowsheds and Milkshops.*—Registered and inspected.

*Common Lodging Houses.*—Nil. *Offensive Trades.*—Two tanneries, etc., one complained of.

*Vaccination.*—Many exemptions.

*River pollution.*—China-clay pollution of the Fal.

*Infectious Diseases Prevention Act 1890.*—Adopted.

*Public Health Act Amendment Act 1890.*—Adopted.

*Isolation Hospital.*—Six beds.

#### REMARKS.

The Housing problem in this District requires the constant and careful attention of the Council. At Perranporth, a resort which is deservedly becoming more popular, it is urgent and imperative that a scheme for efficient drainage be adopted.

#### REDRUTH (R.D.)

M.O.H.—A. E. PERMEWAN, M.D. (Lond.), M.D. Stat. Med. (Lond.), D.P.H. (Camb.)

Area, 26,546 acres. Population, 18,004.

*Births*, 391. Birth-Rate, 21'7.

*Deaths*, 365. Death-Rate, 20'27. Infantile Mortality, 196'9. Zymotic Death-Rate, 3'16.

*Housing.*—Systematic inspections made. Two houses condemned and closed. At Pool, Tuckingmill, St. Day, Brea, Lanner, etc., similar insanitary houses exist.

*Water Supply.*—Good quantity and quality. Camborne Water Company has dealt with Tuckingmill, Pool and Illogan Highway in a satisfactory manner by increasing their storage. St. Day, Parkbottom and Carnkie are without a safe or adequate supply.

*Drainage, etc.* Defective outfall at Pool. No sewerage system at Highway and Barncoose Terrace. Expert advice taken on drainage of Parish of Illogan. Churchtown is not properly drained. Drainage into dock at Portreath is palpably wrong. St. Day has stone-built sewers, and the system is old-fashioned and out of date. Lanner's drainage is being considered in a scheme prepared by Mr. Worth, of Plymouth. Carharrack is deficient in drainage and may possibly be considered in the scheme for Lanner. Privies and ashpits prevail in the district generally.

*Bakehouses.*—Nil. *Slaughter-houses.*—There are 8 in the district.

*Dairies, Cowsheds and Milkshops.*—Regularly inspected.

*Common Lodging Houses.*—Nil. *Offensive Trades.*—Nil.

*Vaccination.*—Exemptions increasing.

*River pollution.*—Red River to Portreath by effluent from Urban Council outfall, as well as by sewage from houses in the Rural District. The leat below Pool is also polluted.

*Infectious Diseases Prevention Act 1890.*—Adopted.

*Public Health Act Amendment Act 1890.*—Adopted.

*Isolation Hospital.*—12 beds with the Urban Authority.

#### REMARKS.

The district heads the list of the Cornwall Rural Districts, with regard to a high Infantile Mortality figure, and also with regard to the Zymotic and



General Death-Rates; the cause of the high Infant Death-Rate is also the cause of the remaining two high rates, viz.: Infantile Diarrhœa. Although the exceptionally hot summer is largely to blame for these adverse figures, yet something can be done to mitigate the evil in the future. Dr. Permewan points out that with regard to excrement disposal, "the preponderating system is still the method of privies and ash-pits combined." Had this system been less in evidence, and W.C.'s more prevalent, connected with a proper water carriage arrangements and good drainage, the statistics would have been more favourable, and the General Death-Rate would not have suffered so much. Failing W.C.'s, a well-supervised pail system is infinitely more sanitary than a neglected privy-midden system.

### EAST KERRIER (R.D.)

M.O.H.—J. BLAMEY, M.R.C.S., L.S.A.

Area, 24,229 acres. Population, 8,009.

*Births*, 126. Birth-Rate, 15·73.

*Deaths*, 113. Death-Rate, 14·10. Infantile Mortality, 134·9. Zymotic Death-Rate, 1·24.

*Housing*.—Inspections throughout the year. Accommodation generally good, except at Flushing and Budock, etc., where it is neither adequate nor good. Four houses closed under the Housing Acts, and eight repaired.

*Water Supply*.—District as a whole is well supplied with water. At Carlidnaek, Mawnan, the supply is not within a reasonable distance of the majority of the houses; attention has been called to this repeatedly. An extension of supply is required at the eastern side of Mawnan Smith. Complaints re public wells at Treluswell and Smalicroft, Longdowns, not yet remedied.

*Drainage, etc.*—Public removal of house refuse at Flushing, Budock, and Chard's Terrace. New sewer put in at

Budock, which place requires much consideration with regard to drainage. At Flushing, a drainage scheme is urgently needed; pails are being substituted for insanitary privies in that part of the village in which foul nuisances existed. Improvements carried out at Mabe, Bufton, Constantine, and Perranwharf.

*Bakehouses.*—2, registered. *Slaughter-houses.*—15 registered and satisfactory.

*Dairies, Cowsheds and Milkshops.*—Dairies registered: some cowsheds unsatisfactory.

*Common Lodging Houses.*—Nil. *Offensive Trades.*—Skin cleaning industry at St. Gluvias.

*Vaccination.*—The ease with which exemptions can be obtained is making vaccination a dead letter.

*River pollution.*—None reported.

*Infectious Diseases Prevention Act 1890.*—Adopted.

*Public Health Act Amendment Act 1890.*—Adopted.

*Isolation Hospital.*—Nil.

#### REMARKS.

The Infant Mortality figure is much too high for a Rural District, despite the allowances made for the hot and dry summer of 1911; the Birth-Rate is much too low. Although a scheme for a wholesale abatement of nuisances at Flushing has been adopted, by which the foul and wet privy-middens are replaced by a pail-system, it is necessary to remind the District Council that a better future for this particular area should be always kept in view, namely, the formation of an open public square, a system of town planning which will eventually be the making of a place, whose climate as a winter health resort is second to none in the whole of Great Britain.



## HELSTON (R.D.)

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M.O.H.—F. CHOWN, M.B. (Lond.), L.S.A., D.P.H.

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Area, 73,020 acres. Population, 17,192.

*Births*, 329. Birth-Rate, 19'13.

*Deaths*, 248. Death-Rate, 14'4. Infantile Mortality, 88.  
Zymotic Death-Rate, 1'3.

*Housing*.—Inadequate accommodation in many villages. At Fournalanes, in about two-thirds of the houses inspected, the living room window was screwed or nailed up or cemented by paint. 60 houses inspected, 32 unfit for human habitation, five closing orders made, three houses repaired without closing orders, one after making closing order. 24 new houses erected. Overcrowding nuisances at Leedstown, Crowan Churchtown, Polladras Downs, Breage Churchtown and Manhay.

*Water Supply*.—Praze and Crowan Churchtown supplied by Camborne Water Co. (springs), Porthleven and parts of Sithney and Wendron, by Helston and Porthleven Water Co.: there are constant supplies. Kenneggy has no adequate and accessible supply.

*Drainage, etc.*—Porthleven and part of Coverack are drained by a water carriage system. With these exceptions the villages are either without drains, or have a slop-water drain which empties on to land or into a stream. At Porthleven and Coverack the sewage is discharged into the sea at low-water mark. The Lizard sewer receives the slop-water of about half the houses, and discharges into a ditch. Steps are being taken to acquire land for the erection of a septic tank to receive this sewage. At Cadgwith several of the houses have slop-water drains connected to an old stone drain which empties into the stream in the middle of the village. St. Keverne.—The old stone sewer is being gradually replaced by glazed earthenware pipes. A section was

completed last year, and another part is about to be re-constructed. Porthallow.—Most of the houses have slop-water drains which empty into the stream about a hundred yards above the sea. Gwealangears.—All houses have slop-water drains connected to the sewer, which discharges into a cess-pit in a field at some distance from the houses. The cesspit is periodically emptied by the farmer.

*Bakehouses.*—One, unregistered. *Slaughter-houses.*—Regularly inspected.

*Dairies, Cowsheds and Milkshops.*—52 dairies registered.

*Common Lodging Houses.*—Two, registered. *Offensive Trades.*—Knacker's yard and tannery, no complaints.

*Vaccination*—Rapidly decreasing.

*River pollution.*—Nil.

*Infectious Diseases Prevention Act 1890*—Adopted.

*Public Health Act Amendment Act 1890*—Adopted.

*Isolation Hospital.*—Nil.

#### REMARKS.

The drainage at the Lizard is a matter of urgency ; the promised scheme shows no signs of adoption, and, despite the complaints of the residents and visitors, a most abominable state of things is allowed to exist. Dr. Chown has visited the place along with the Sanitary Inspector and the County Medical Officer, with the object of arriving at a decision as to a drainage scheme, but the time of these officers is being wasted if the District Council remain apathetic.

It is to be hoped also that the Local Authority will note their Medical Officer's remarks with regard to scavenging at Four Lanes and Gwealangears ; the latter has 46 houses of urban character and without gardens, and hence such an undertaking is necessary. The vital statistics are generally good, considering the very adverse year.



## WEST PENWITH (R.D.)

M.O.H.—J. R. M. RICHMOND, L.S.A., L.M.S.S.A.

Area, 41,202 acres.      Population, 11,165.

*Births*, 235.    Birth-Rate, 21·04.

*Deaths*, 171.    Death-Rate, 15·3.    Infantile Mortality, 119·1.  
Zymotic Death-Rate, 0·98.

*Housing*—Accommodation fair. Sennen Cove has some houses without any sanitary conveniences. Houses inspected regularly. Workmen's dwellings at Marazion are desirable.

*Water Supply*.—Carbis Bay requires urgent attention, and a scheme is already prepared, which should meet all demands. Higher part of Marazion insufficiently supplied in summer. St. Hilary very badly supplied, ditto Perranuthnoe. A public well at St. Buryan Churchtown has been proved, after analysis, to yield a supply unfit for drinking purposes.

*Drainage, etc.*—Attention to drainage is required at Gulval Cross and Gulval Churchtown, also at St. Erth Churchtown. Certain houses at Longrock are drained into the Tremenhere brook, which is obviously wrong, and should be remedied. The Goldsithney sewer empties into a field, and certain houses at St. Buryan are without efficient drainage. Drainage at Carbis Bay is not satisfactory.

*Bakehouses*.—One, registered. *Slaughter-houses*—Nine in number.

*Dairies, Cowsheds and Milkshops*.—8 cowsheds drained and put in order.

*Common Lodging Houses*.—Nil.

*Vaccination*.—Exemptions increasing.

*River Pollution*.—River between Relubbus and St. Erth mine has been blocked by china-clay and mine refuse—rectified by the landlords. Tremenhere and Ponsandane brooks polluted from refuse at Longrock and Gulval.

*Infectious Diseases Prevention Act 1890*.—Adopted.

*Public Health Act Amendment Act 1890*.—Adopted.

*Isolation Hospital*.—Nil.

## REMARKS.

The houses at Sennen Cove without closet accommodation should receive the attention of the District Council at once. The District Council must be reminded that it is illegal to pollute streams with sewage, and no work, however small, should be undertaken which would involve any violation of the Rivers' Pollution Prevention Act.

Improvements are urgently required at Carbis Bay and Sennen Cove with regard to the disposal of refuse and excrement; doubtless there will be an opportunity at Carbis Bay for making drainage, etc., efficient as soon as the projected scheme for an adequate water supply is carried to a successful issue, seeing that a proper drainage system must depend on the water supply.

**SCILLY ISLES (R.D.)**


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M.O.H.—T. BRUSHFIELD, M.D.

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Area, 4,041 acres.                      Population, 2,097.

*Births*, 37.    Birth-Rate, 17·6.

*Deaths*, 21.    Death-Rate, 10·0.    Infantile Mortality, 54·2.  
Zymotic Death-Rate, 0·47.

Seeing that these islands do not constitute part of the Administrative County of Cornwall for sanitary purposes, further information has not been forthcoming.

**CALLINGTON (U.D.)**


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M.O.H.—H. DAVIS, Junr., M.R.C.S., L.R.C.P., Lond., D.P.H.

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Area, 2,531 acres.                      Population, 1,713.

*Births*, 44.    Birth-Rate, 25·6.

*Deaths*, 23.    Death-Rate, 13·4.    Infantile Mortality, 68·4.  
Zymotic Death-Rate, 1·16.



*Housing.*—434 occupied houses, 15 unoccupied, a slight increase on the previous census; over 30 new houses have been built during ten years to provide for the labourer. Systematically inspected 250 houses, in addition to many casual inspections. It is gratifying to note that these inspections have revealed very few defects. Two new houses have been built; their sanitary condition is good, and certificates of water supply have been granted. One case of overcrowding has been dealt with.

*Water Supply.*—Dr. Davis states:—“The supply from the Waterworks Company was considerably reduced in July. By careful management the water was turned on for two or three hours each day to the end of the drought. Pipe well and the fountain supplies proved their value in times of drought; though reduced to a very small amount, their supply was constant. There are still nearly 100 pumps in the town. The Water Company considerably increased their supply, but this came too late to be fully appreciated in the drought.”

*Drainage, etc.*—For the third year in succession it has not been found necessary to do much to the sewerage system; four gully traps, one inspection chamber, and a few feet of new sewer in Tavistock Road is all that has been regarded as absolutely necessary. The sewers and traps have fulfilled their functions without fault, and against the exceptionally trying alternatives of drought and thunderstorms. Seven houses have had their drains re-constructed, and four have had considerable repairs; five new W.C.'s have been built.

*Bakehouses.*—9 unregistered. *Slaughter-houses.*—4: regularly inspected.

*Dairies, Cowsheds, and Milkshops.*—About 22, regularly inspected.

*Common Lodging Houses.*—Nil. *Offensive Trades.*—Nil.

*Vaccination.*—Exemptions increasing; Callington Parish is the least vaccinated of the vaccination district, and claims nearly half of the exemptions.

*River pollution.*—None.

*Infectious Diseases Prevention Act*, 1890.—Not adopted.

*Public Health Act Amendment Act*, 1890.—Part III adopted.

*Isolation Hospital*.—Nil.

#### REMARKS.

It is to be regretted that for reasons that are apparently unavoidable, certain dilapidated property should be allowed to remain in one of the most historic streets of such an interesting town as Callington. The Council would be well advised to adopt all the clauses of the Infectious Diseases Prevention Act.

Dr. Davis made a most careful investigation of the school epidemic of Diphtheria, and succeeded in stamping out a disease which had a tendency to be fatal; he advised the Council to take the fullest advantage of the Diphtheria Antitoxin Order of 1910, with the good results indicated. Some close watch will have to be kept, however, as a recrudescence of this disease even many months afterwards, is so common when once it gains a footing.

#### STRATTON & BUDE (U.D.)

M.O.H.—T. A. KING, M.R.C.S., L.R.C.P. (Lond.)

Area, 1,882 acres.

Population, 2,979.

*Births*, 51. Birth-Rate, 17·1.

*Deaths*, 39. Death-Rate, 13·08. Infantile Mortality, 78·4.  
Zymotic Death-Rate, 0·33.

*Housing*.—Condition good. One case of overcrowding. Systematic inspection of all the houses was made twice during the year.

*Water Supply*.—Adequate in spite of abnormally dry year. Analysis from time to time proves that the water is pure and fit for all purposes.

*Drainage, etc.*.—House refuse removed and scavenging done by the Local Authority. Steps taken to prevent outfall pipe becom-



ing blocked. Stratton sewage pollutes the river Strat it is reported, but steps are being taken to remedy it, as stated under "River pollution."

*Bakehouses.*—Not registered. *Slaughter-houses.*—Not registered. Inspected and satisfactory.

*Dairies, Cowsheds and Milkshops.*—Registered and regularly inspected.

*Common Lodging Houses.*—Nil. *Offensive Trades.*—Nil.

*Vaccination.*—Exemptions increasing.

*River Pollution.*—River Strat said to be polluted by sewage at Stratton. Steps being taken to rectify this. Also Hollabay stream polluted by sewage from Diddies Houses. Steps should be taken to remedy this.

*Infectious Diseases Prevention Act, 1890.*—Adopted.

*Public Health Act Amendment Act, 1890.*—Adopted.

*Isolation Hospital.*—8 beds with the Rural District Council.

#### REMARKS.

It is obvious, that as Dr. King points out in his report, Bude must have suffered on account of the rumours circulated to the effect that there were cases of "Spotted Fever" (Cerebrospinal Meningitis) in the town during the months of July and August. Not a single case of this disease was authenticated in the whole of Cornwall: the other somewhat similar complaint (Poliomyelitis) did certainly exist in both Devon and Cornwall, but in Cornwall it was mainly in the St. Austell district, and Bude had only two actual cases which could be included in the epidemic.

### LAUNCESTON BOROUGH.

M.O.H.—A. BUDD, M.B., B.S. (Durh.).

Area, 2,182 acres.

Population, 4,117.

*Births*, 47. Birth-Rate, 11·4.

*Deaths*, 64. Death-Rate, 15·5. Infantile Mortality, 42·  
Zymotic Death-Rate, 0·24.

*Housing.*—General conditions improved and is fairly adequate to the requirements of the district. One or two cases of overcrowding nuisances. Systematic Inspections under the Town Planning Act at St. Stephens Village (the whole), Fore Street, Tower Street, Northgate Street, Angel Hill, Place Hill, etc. Housing scheme projected for Northgate Street.

*Water Supply*—Town Waterworks—no complaint of quality or quantity during the year.

*Drainage, etc.*—The drainage of St. Stephens Village has been undertaken, and 33 W.C.'s installed and connected with the main sewer. Ditto at Wooda Lane, new drainage work.

*Bakehouses.*—Registered. *Slaughter-houses*—Registered.

*Dairies, Cowsheds and Milkshops.*—Registered and regularly inspected.

*Common Lodging Houses.*—One, registered. *Offensive Trades*—Nil.

*Vaccination.*—Exemptions on the increase.

*River Pollution.*—Nil.

*Infectious Diseases Prevention Act 1890*—Not adopted.

*Public Health Act Amendment Act 1890*—Part III. adopted.

*Isolation Hospital.*—Nil.

#### REMARKS.

The Birth-Rate is exceeding low for the year. It is understood that steps are being taken to provide a small public mortuary, the want of which has been felt in the past. The Infectious Diseases Prevention Act of 1890 ought certainly to be adopted in a town so important as Launceston. The sewage plant requires overhauling, as both the filter beds and the land treatment are inefficient (See special chapter on Sewage, etc., in this report). Dr. Budd deplors the lack of Isolation Hospital accommodation, but there is evidence that in the near future a joint scheme with other Local Authorities will be available.



## LISKEARD BOROUGH.

M.O.H.—W. NETTLE, M.R.C.S. (Eng.), L.S.A.

Area, 2,704 acres,      Population, 4,371.

*Births*, 77.    Birth-Rate, 17·61.

*Deaths*, 65.    Death-Rate, 14·8.    Infantile Mortality, 103.  
Zymotic Death-Rate, 0·68.

*Housing*.—400 House to House inspections made. Many cases of serious overcrowding have been dealt with during the year, which demonstrates that much requires to be done to satisfy the needs of the borough, whose working-class houses are frequently unsatisfactory and maintain a very low standard.

*Water Supply*.—Public service of wholesome water from uncultivated upland sources. The water is soft but free from lead even after standing some time in leaden pipes, and its chemical analysis is also in other respects quite satisfactory as proved by analysis.

*Drainage, etc.*—Town well served on the combined system. Land irrigation system in vogue, but some sewage is turned into water-courses (!). W.C.'s practically throughout whole town. Privies and cesspits in rural parts. House refuse collected weekly in moveable receptacles.

*Bakehouses*.—Registered and regularly inspected. *Slaughterhouses*.—32 inspections. All registered. 8 in number and fairly well kept.

*Dairies, Cowsheds and Milk Shops*.—32 inspections. Registered and well kept.

*Common Lodging Houses*.—One registered and regularly inspected.

*Offensive Trades*.—A knacker's yard has recently been removed to the outskirts of the town away from other houses.

*Vaccination*.—Large number of exemptions.

*River Pollution*.—Report that a large portion of the Liskeard sewage empties into a tributary of Looe River, but that no serious pollution takes place, and no complaints have been made.

*Infectious Diseases Prevention Act 1890.*--Adopted.

*Public Health Act Amendment Act 1890.*--Adopted.

*Isolation Hospital.*--None.

#### REMARKS.

Dr. Nettle has gone thoroughly into the housing question in order to satisfy in his district the demands of the Town Planning Act 1909; his work in this respect must be appreciated on account of the revelations disclosed with regard to the standard of the housing of the working classes in the borough.

In the absence of the Notification of Births' Act, it is pleasing to record that the mother of every child registered in this district is supplied with the leaflet, "How to bring up a Baby," as issued by the National League for Physical Education.

#### TORPOINT (U.D.)

M.O.H.—S. G. VINTER, M.R.C.S., L.R.C.P. (Lond.), D.P.H.

Area, 975 acres. Population, 4,283.

*Births*, 113. Birth-Rate, 26·38.

*Deaths*, 58. Death-Rate, 13·54. Infantile Mortality, 79·6. Zymotic Death-Rate, 1·4.

*Housing.*—Sufficient for the district. 40 notices served to remedy defects. 36 formal and 43 preliminary notices under the Public Health Act. 4 closing orders made (one house since demolished). Inspections under Housing and Town Planning Act 1909 (card system).

*Water Supply.*—No shortage in the exceptionally dry summer, but inadequate pressure in higher parts of the town. Waterworks with filter beds in use. An analysis of the water was not altogether satisfactory.



*Drainage, etc.*—Public sewers were laid in 1886, and have been extended from time to time. At a cost of £120, the sewer in Union Road, which was found defective, was completely relaid. Public convenience improved at a cost of £13.

*Bakehouses.*—Registered. *Slaughter-houses.*—Registered.

*Dairies, Cowsheds and Milkshops.*—Registered and regularly inspected.

*Common Lodging Houses.*—Nil. *Offensive Trades*—Nil.

*Vaccination*—96 primary vaccinations, 7 re-vaccinations.

*River Pollution.*—Torpoint sewage discharges into the Hamoaze (one-third of a mile wide). No serious pollution.

*Infectious Diseases Prevention Act 1890*—Adopted.

*Public Health Act Amendment Act 1890*—Adopted.

*Isolation Hospital*—Nil.

#### REMARKS.

Certain dwelling houses without a "through draught" should be dealt with, some of which perhaps can "reasonably be made fit" for human habitation. In view of the adverse report on the analysis of the water supplying this district, it is necessary to exercise close supervision and to have repeated analyses taken, until such time as the contemplated new supply is available.

#### LOOE (U.D.)

M.O.H.—J. E. WEBB, M.B., C.M.

Area, 590 acres.

Population, 2,718.

*Births*, 48. *Birth-Rate*, 17·6.

*Deaths*, 32. *Death-Rate*, 11·7. *Infantile Mortality*, 104·1.  
*Zymotic Death-Rate*, ·36.

*Housing.*—House to house inspection under the Housing and Town Planning Act, 1909, is being systematically done. Accommodation satisfactory. 168 dwellings reported upon.

*Water Supply.*—Adequacy much in question; insufficiency at higher levels during summer. Proposed increased supply from Lake Orchard.

*Drainage, etc.*—W.C. system in vogue in most parts of the town; every house provided or under notice to provide W.C.'s. Estimates have been invited for the sewerage of Buller and Market Streets. Scavenging improved, house refuse being regularly removed twice a week, but a better refuse cart should be substituted.

*Bakehouses.*—Registered.      *Slaughter-houses.*—Registered.

*Dairies, Cowsheds and Milkshops.*—Registered and regularly inspected.

*Common Lodging Houses.*—Registered.      *Offensive Trades.*—Nil.

*Vaccination.*—Exemptions still increasing.

*River Pollution.*—Nil.

*Infectious Diseases Prevention Act 1890.*—Adopted.

*Public Health Act Amendment Act 1890.*—Adopted.

*Isolation Hospital.*—Nil.

#### REMARKS.

The Birth-Rate is low, otherwise the statistics are good, considering such an adverse year as 1911.

Much emphasis should be laid on Dr. Webb's remarks re the cleansing of back streets; in fact, this constitutes one of the most serious warnings a Medical Officer could give to his Local Authority. The Zymotic Disease and Death-Rate is more closely associated with the matter of street cleansing than is generally believed; even the Infantile Mortality is influenced by it, as may be observed by a comparison of badly cleansed with well cleansed towns. So many diseases may be associated with dirt and dust, including consumption itself, that it behoves every public body to ensure safety by adopting W.C. systems (as in Looe), instead of street-fouling night-soil arrangements with leaky scavenging carts.



## SALTASH BOROUGH.

M.O.H.—G. S. MEADOWS, M.B., C.M. (Edin.)

Area, 193 acres.                      Population, 4,130.

*Births*, 75. Birth-Rate, 18·1.

*Deaths*, 50. Death-Rate, 12·1. Infantile Mortality, 106·6.  
Zymotic Death-Rate, 0·48.

*Housing*.—Accommodation excellent, many small houses having been built at the higher part of the town. Lower part of town improved under the provisions of the Housing and Town Planning Act. One case of overcrowding dealt with. No closing orders made.

*Water Supply*.—Sufficient and of good quality. Supplied from two sources; I, Spring situated in a disused mine adit; II, Plymouth reservoir on Dartmoor.

*Drainage, etc.*—Adequate and sufficient. Ventilation of the sewers has been improved. Earth closets and cesspits in older houses which are not connected with the sewers owing to distance.

*Bakehouses*.—Registered. *Slaughter-houses*.—Registered.

*Dairies, Cowsheds and Milkshops*.—Milkshops registered and regularly inspected. No dairies and cowsheds.

*Common Lodging Houses*.—One, registered. *Offensive Trades*.—Nil.

*Vaccination*.—Increased number of exemptions.

*River pollution*.—Nil.

*Infectious Diseases Prevention Act 1890*.—Adopted.

*Public Health Act Amendment Act 1890*.—Adopted.

*Isolation Hospital*.—Nil.

### REMARKS.

This is one of the few districts in which the housing accommodation has been returned as "excellent."

Dr. Meadows draws attention to the regrettable increase in the number of exemptions from Vaccination. His re-

marks on the subject are most justified in view of the possibility of the importation of Small-pox into a place like Saltash, which is so near the landing places for the passengers and crews of vessels which visit foreign countries. It is to be hoped that final negotiations will be made with other Local Authorities for the formation of a Joint Hospital Board; this will be the most efficient and cheapest means of solving the Isolation Hospital problem.

### BODMIN BOROUGH.

M.O.H.—B. G DERRY, L.R.C.P. (Lond.), M.R.C.S. (Eng.)

Area, 2,797 acres.      Population, 5,734.

*Births*, 80. Birth-Rate, 18·29.

*Deaths*, 60. Death-Rate, 13·72. Infantile Mortality, 100·0. Zymotic Death-Rate, 1·37.

*Housing*.—Dwelling-house accommodation ample and the demand for new houses well met. Inspections made under the Housing and Town Planning Act 1909.

*Water Supply*.—Continuous, unlimited and of excellent quality.

*Drainage, etc.*—Scavenging carried out by the Local Authority. The Sewage Works continue to discharge a satisfactory effluent, and no complaints have been made as to pollution of the stream. The public sewers are in a satisfactory condition, and are periodically flushed and disinfected.

*Bakehouses*.—Periodically inspected. *Slaughter-houses*.—Regularly inspected.

*Dairies, Cowsheds and Milkshops*.—Regularly inspected and in satisfactory condition.

*Common Lodging Houses*.—No statement.

*Offensive Trades*.—Nil.

*Vaccination*.—Exemptions increasing.



*River pollution.*—Nil.

*Infectious Diseases Prevention Act, 1890.*—Adopted.

*Public Health Act Amendment Act 1890.*—Adopted.

*Isolation Hospital.*—Nil.

#### REMARKS.

With regard to the lack of Isolation Hospital accommodation, it is pleasing to record that the possibility of a Joint Board with other districts is looked upon with favour by the Bodmin Authority, a joint meeting having already been held in the Guildhall. It is to be hoped that the scheme will be eventually carried to a successful issue.

The Annual Report of the Medical Officer of Health should be printed.

### LOSTWITHIEL BOROUGH.

M.O.H.—W. M. THOMAS, M.R.C.S., L.R.C.P. (Lond.)

Area, 389 acres. Population, 1,373.

*Births*, 17. Birth-Rate, 12·38.

*Deaths*, 18. Death-Rate, 13·1. Infantile Mortality, 58·8. Zymotic Death-Rate, Nil.

*Housing.*—Excellent houses at a rental of £12—£14 per annum have been built, but there is much need of workmen's dwellings at a yearly rental of about £6—£8. One case of overcrowding dealt with.

*Water Supply.*—Shortage of water in the autumn. Projected scheme for a reservoir on Bodmin Hill.

*Drainage, etc.*—Almost entirely water carriage system, there remaining very few privies and cesspits. House drains in many old houses require attention. Sewage outfall by several channels into the river between the stone bridge and the iron bridge.

*Bakehouses.*—Registered. *Slaughter-houses.*—Registered.

*Dairies, Cowsheds and Milkshops.*—Registered and regularly inspected.

*Common Lodging Houses.*—Nil. *Offensive Trades.*—Nil.

*Vaccination.*—Exemptions increasing.

*River pollution.*—Nil.

*Infectious Diseases Prevention Act 1890.*—Adopted.

*Public Health Act Amendment Act 1890.*—Adopted.

*Isolation Hospital*—Nil.

#### REMARKS.

The Vital Statistics for this borough, with the exception of the Birth-Rate, are satisfactory, the most pleasing feature being the Zymotic Death-Rate of nil. As to the Isolation Hospital accommodation, the same remarks apply as are appended to the Bodmin summary. Attention should be given by the Borough Council to the sewage and its outfalls into the river.

#### WADEBRIDGE (U.D.)

M.O.H.—J. E. PELLOW, M.A., M.B., B.C. (Camb.), M.R.C.S.,  
L.R.C.P. (Lond.)

Area, 864 acres. Population, 2,339.

*Births*, 38. Birth-Rate, 16·2.

*Deaths*, 34. Death-Rate, 14·5. Infantile Mortality, 105·2.  
Zymotic Death-Rate, 1·1.

*Housing.*—House accommodation good and sufficient for the requirements of the working classes of the district. Five new cottages built and two satisfactorily renovated.

*Water Supply.*—Council's reservoir with adequate supply, except in the early autumn, when economy was necessary: the water gives a satisfactory analysis.

*Drainage, etc.*—Seven private house drains connected with the sewer during the year and nine placed in good and proper order. 12 new W.C.'s provided and 14 privies converted into W.C.'s.



*Bakehouses.*—Regularly inspected. *Slaughter-houses.*—Frequently inspected and found satisfactory.

*Dairies, Cowsheds and Milkshops.*—Frequently inspected and satisfactory.

*Common Lodging Houses.*—Nil.

*Offensive Trades.*—Nil.

*Vaccination.*—Exemptions increasing.

*River pollution.*—River Camel reported polluted by drainage from Egloshayle, Guineaport and Wadebridge sewers.

*Infectious Diseases Prevention Act 1890.*—Not adopted.

*Public Health Act Amendment Act 1890.*—Not adopted.

*Isolation Hospital.*—Nil.

#### REMARKS.

The Infectious Diseases Prevention Act 1890, and the Public Health Act Amendment Act ought to be adopted for the district. Steps should be taken to prevent pollution of the river Camel.

### TRURO CITY.

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M.O.H.—H. C. SHARP, B.A., M.B., B.C. (Camb)

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Area, 1,139 acres.      Population, 11,325.

*Births*, 221.    Birth-Rate, 19·5.

*Deaths*, 181.    Death-Rate, 15·9.    Infantile Mortality, 90·4.  
Zymotic Death-Rate, 1·32.

*Housing.*—There is no doubt a demand for small houses of a rental of £10 a year, and the Local Government Board have sanctioned a loan for the erection of 17 artisan dwellings, on the site known as Waterloo, at the east end of the city. Cases of overcrowding occur and are dealt with as they arise, but the great difficulty in these cases is to do what is not only sanitary but humane, as it is impossible to turn the people out into the streets. The surroundings of the

poorer houses are continually being improved, spar paving being replaced by impervious brick paving, collections of refuse removed and the inhabitants urged to keep their windows open, and air spaces clean. Particulars of inspections, etc., of dwelling houses are as follows :—

Housing and Town Planning, etc., Act, 1909. *Particulars of Inspections, etc., of Dwelling Houses.*

Number of houses inspected under and for the purposes of Section 17. ... ..	224
Number of dwelling houses which, on inspection, were considered to be in a state so dangerous or injurious to health, as to be unfit for human habitation,	19
Number of representations made to the Local Authority with a view to the making of closing orders ...	4
Number of closing orders made ... ..	4
Number of dwelling houses the defects of which were remedied without the making of closing orders	73
Number of dwelling houses which, after the making of closing orders, were put into a fit state for human habitation ... ..	1

General character of the defects found to exist :—

Rooms insufficiently lighted and ventilated, and lack of air spaces around buildings. Plastering of internal surfaces of walls defective, and floors broken. Drain ends improperly trapped. Yards improperly paved.

*Water Supply* is derived almost entirely from the Truro Waterworks Co. The area of the gathering ground of the supply is 2,577 acres, composed chiefly of grazing land, with a considerable amount of woodland and a small portion of arable land, and the inhabited houses on the watershed are few. There are two service reservoirs having a capacity of 825,000 gallons, and a clean water tank capable of holding 170,000 gallons. The supply per head per diem amounts to approximately 17 gallons. There are 4 filter beds. The Company have, under the advice of the Candy Filter Co., carried out a scheme for the better purification of the water, and



this should effectually remove what at one time was considered to be a distinct danger. The process consists of the injection of the water by chlorine, and its subsequent removal by passing it through charcoal. Four dechlorinating filters were put in, with provision for a fifth.—I give the latest analysis by Dr. Thresh, which is very satisfactory.

Report on two samples of water submitted by the Truro Water Co., taken by W. J. Lean, and received on December 14th, 1911.

No. 1.—From tap on rising main from filter. This is a water of the very highest bacterial purity, containing few bacteria, and no bacteria of the coli group even in 136 c.c.

No. 2.—From tap on Co.'s main in town. This also is an excellent water, though not quite of so high a degree of purity as No. 1. It did not contain the B. coli in 36 c.c., but it was present in 100 c.c. This is a very good standard.

Signed JOHN C. THRESH,  
JOHN F. BEALE.

	Sample No. 1	Sample No. 2
Number of organisms per cubic centimetre capable of growing upon nutrient gelatine at 20 degrees C. in 3 days ... ..	31	54
Number of organisms per cubic centimetre capable of growing upon agar, at 37 degrees C. in 1 day ... ..	8	24
Smallest quantity of water giving acid and gas in bile salt glucose broth ... ..	100 c.c.	10 c.c.
Smallest quantity of water giving gas in bile salt lactose broth ... ..	Absent in 136 c.c.	100 c.c.
Smallest quantity of water containing the Bacillus Coli Communis ... ..	do.	do.
Smallest quantity of water giving the reaction of the Bacillus Enteritidis Sporogenes ... ..	Absent in 110 c.c. in both.	

*Drainage, etc*—The whole of the sewerage and storm water is conveyed by sewers to the rivers Allen and Kenwyn, where it is discharged at various points in a crude state. The Council have had under consideration a scheme, prepared by their Surveyor, for the disposal of sewage, and it is to be hoped that before long definite steps will be taken to remove what is not only a danger, but an eyesore to the inhabitants. There were 2,704 inhabited houses at the last census, with the exception of about 20 houses in the outlying parts of the district, with privies or earth closets, the whole of the houses in the city have W.C. accommodation on the water carriage system, either separately or in common. A large number of these closets have no flushing cisterns or water supply. In many cases the W.C. basins are not of a modern type, so that their condition, when used by more than one household, and when the nearest water supply is more than 50 yards distant, is often very filthy. It ought to be insisted that all closets used by more than one household should have a flushing cistern attached to them.

*Bakehouses*.—Registered and regularly inspected. *Slaughterhouses*.—Registered and regularly inspected.

*Dairies, Cowsheds and Milkshops*.—Registered and regularly inspected. General conditions satisfactory.

*Common Lodging Houses*.—Registered and regularly inspected.

*Offensive Trades*.—Complaints of nuisance from gut-scraping works. Proceedings taken on two occasions, and occupiers fined £2 2s. and £4 4s. Business since discontinued. Occupiers of Soap Works called upon to abate nuisance.

*River pollution*.—M.O.H. reports pollution of Rivers Allen and Kenwyn by sewage matter.

*Infectious Diseases Prevention Act 1890*.—Adopted.

*Public Health Act Amendment Act 1890*.—Adopted.

*Isolation Hospital*.—15 beds.



## REMARKS.

Under the headings of Housing, Water-Supply, and Drainage, etc., the remarks of the M.O.H. in his Annual Report have been, as far as possible, quoted in full. Dr. Sharp comments on the unsatisfactory state of the Truro sewerage, but draws attention to the scheme prepared by the City Surveyor for the better disposal of excrement; it is to be hoped that the City of Truro will now have an opportunity of being made completely sanitary in this respect, as the present state of affairs constitutes a very serious blot on the reputation of so progressive a city.

**PENRYN BOROUGH.**

M.O.H.—J. BLAMEY, M.R.C.S. (Eng.), L.S.A.

Area, 286 acres. Population, 3,092.

*Births*, 80. Birth-Rate, 25·87.

*Deaths*, 62. Death-Rate, 20·0. Infantile Mortality, 237·5. Zymotic Death-Rate, 4·5.

*Housing*.—Fairly satisfactory accommodation for the working classes. Prospect of working men's cottages being built by private enterprise in the near future.

*Water Supply*.—Good. Two samples of the water taken from the Falmouth Water Co.'s mains were analysed and reported as "good drinking water, though slightly peaty."

*Drainage, etc.*—Sewer outfall into the Budock river carried further down to remove nuisance. Pollution of foreshore by outfalls requires attention: possibility of contamination of nearest oyster beds.

*Bakehouses*.—Five, all registered. *Slaughter-houses*.—One, registered.

*Dairies, Cowsheds and Milkshops*.—15 in number. Registered and regularly inspected.

*Common Lodging Houses*.—Nil. *Offensive Trades*.—Nil.

*Vaccination.*—Exemptions increasing rapidly.

*River pollution.*—See drainage.

*Infectious Diseases Prevention Act 1890.*—Adopted.

*Public Health Act Amendment Act 1890*—Adopted.

*Isolation Hospital.*—Nil.

#### REMARKS.

The Vital Statistics of this Borough are extremely unsatisfactory, notwithstanding the adverse year of 1911 with regard to the drought and its attendant increase in diarrhœal diseases and deaths. Much active attention has been given, however, during the year to what may have been considered contributory causes of these adverse figures; street cleaning, so frequently associated with Infant Mortality, has been put under better supervision, and a new horse-drawn sweeper provided. The town has been divided into districts for the purposes of scavenging, with one or more men allocated to each area. River and foreshore pollution should receive the attention of the Borough Council.

### FALMOUTH BOROUGH.

M.O.H.—A. GREGOR, M.D. (Aberd.), M.B., C.M., L.M.

Area, 791 acres. Population, 13,136.

*Births*, 234. Birth-Rate, 17·8.

*Deaths*, 203. Death-Rate, 15·4. Infantile Mortality, 175·2.  
Zymotic Death-Rate, 2·05.

*Housing.*—Housing Committee are considering a site for workmen's dwellings.

Number of visits of inspection, as the result of complaint or otherwise, 927; number of notices served for structural defects of houses, 81; number of notices served for other sanitary defects, 81; number of notices complied with, 162; number of houses closed under Town Planning Act, nil; number demolished.



1; number of new W.C.'s provided, 66; number of new interceptors fixed, 25; number of new Doulton traps, 150; number of yards re-paved, 25.

“The number of new houses passed for occupation during the past year was 15. This shows a great decrease as compared with the previous two years, when the numbers were 50 and 29 respectively.”

*Water Supply.*—“A great and much-needed improvement in the water supply has taken place during the past year. The Company have largely increased the capacity of the gathering ground, and the quality of the filter beds has been much improved. The result of this was that, in spite of the dry season, the supply was not curtailed for any purpose, domestic, sanitary or trade; a striking contrast to past seasons. The summary of last analysis was as follows: ‘The filtration of these samples is good, and I consider they represent water suitable for drinking purposes.’—(Signed) Benedict Kitto.”

*Drainage, etc.*—“The principal event of the past year was the holding of an inquiry by the Local Government Board into the proposed scheme for draining the Gyllyngvase area. This received the sanction of the Board, and the work is now well on the way towards completion, and promises to be finished before the commencement of the next summer season. The septic tanks have been somewhat delayed by the rough weather, but are now making good progress, and most of the sewers have been laid.

In regard to the disposal of the sewage on the harbour side of the town, the committee has given a great deal of thought and care. The question is one of long standing, and one which will involve a large expenditure. The method of disposal is still under consideration, and it is to be hoped that a solution of this difficult problem will be arrived at in the near future. As time goes on the difficulties of administration increase, owing to the increase of the population, and the number of summer visitors. During the past season special difficulties were encountered in keeping the beaches



at Market Strand and Fish Strand Quay in a cleanly condition, and necessitated the removal of about 460 tons of sludge. During the summer all the main drains and sinks were kept continually flushed."

*Bakehouses.*—Registered. *Slaughter-houses.*—Registered.

*Dairies, Cowsheds and Milkshops.*—Registered and regularly inspected.

*Common Lodging Houses.*—Nil. *Offensive Trades.*—Nil.

*Vaccination.*—Exemptions as in other districts.

*River pollution.*—Nil (excepting tidal).

*Infectious Diseases Prevention Act 1890.*—Adopted.

*Public Health Act Amendment Act 1890.*—Adopted.

*Isolation Hospital.*—Eight beds.

#### REMARKS.

Dr. Gregor has given a comprehensive account of the condition of Falmouth as regards Housing, Water Supply, and Drainage, actual extracts from which are quoted above under these headings. The Infantile Mortality figure is a high one, and has influenced adversely the Zymotic Death-Rate, and, in proportion, the General Death-Rate, but consideration must be given to the exceptionally hot and dry summer of 1911. The "Infants' Milk Club" described by Dr. Gregor is a credit to the ladies' committee who take this important work in hand, and must have been the means of saving the lives of many infants during the summer months. It is impossible to quote in full the remarks of the M.O.H. on this subject, but it would be well if those Local Authorities with a high infant death-rate were to consult his Annual Report, or to ask for information direct. The matter of the disposal of sewage on the harbour side of the town requires urgent action, as the present condition of things constitutes a grave public danger.



## HELSTON BOROUGH.

M.O.H.—M. R. TAYLOR, M.R.C.S., L.R.C.P. (Lond.)

Area, 309 acres.      Population, 2,938.

*Births*, 59.    Birth-Rate, 20·08.

*Deaths*, 60.    Death-Rate, 20·42.    Infantile Mortality, 186·4.  
Zymotic Death-Rate, 2·7.

*Housing*.—Inspections under the Housing and Town Planning Act. Six new houses occupied during the year: all have W.C.'s and baths provided. A number of empty houses exist in the town, and the accommodation for the working classes is adequate, there being no case of overcrowding.

*Water Supply*.—Helston and Porthleven Water Co. Analysis of town's water and bacteriological examination of same proved water of good quality and suitable for drinking purposes, but every care should be taken to prevent possible contamination of the gathering ground or reservoir.

*Drainage, etc.*.—Sewers serve 40 W.C.'s and receive effluent from septic tanks of Workhouse and County School. 25 houses have W.C.'s emptying into cess pools. 400 privy pits and ash pits, the scavenging of which is done by the Borough to the number of 371, with 657 loads removed during the year.

*Bakehouses*.—Three, registered.    *Slaughter-houses*.—Seven, registered.

*Dairies, Cowsheds and Milkshops*.—Eight, all registered and regularly inspected.

*Common Lodging Houses*.—One, registered.    *Offensive Trades*.—Tanyard, no complaints.

*Vaccination*.—Exemptions increasing.

*River pollution*.—Sewage: water carriage system.

*Infectious Diseases Prevention Act 1890*.—Adopted.

*Public Health Act Amendment Act 1890*.—Adopted.

*Isolation Hospital*.—Nil.

## REMARKS.

The Vital Statistics of the Borough are unsatisfactory, there being a "natural decrease" of population, due to an excess of deaths over births; the Death-Rate and Zymotic Death-Rate have, however, been influenced by the infant deaths. The Infantile Mortality figure is much too high, even after allowing for the exceptionally dry summer of 1911. Although instruction in the care and feeding of infants does much to mitigate the evil, it cannot be expected that this town will become immune to a high infant death-rate, until the 400 privies and ashpits are considerably reduced in number. Dr. Taylor has done all in his power to draw special attention to the cleansing of these pits in the summer season, but too little money is spent on scavenging (£45 per annum). The subject is a matter of life and death to infants under one year of age, and of serious importance to the health of adults. People whose middens are insanitary should have notices served on them to abate the nuisance, and the number of open privies should be diminished by increasing the number of W.C.'s; it will save life and labour and expense. Existing pits should be emptied oftener, and where it is impossible, on account of lack of sewers, to convert insanitary ones to the water-carriage system, a good pail system should be adopted.

**ST. IVES BOROUGH.**

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M.O H.—J. M. NICHOLLS, L.R.C.P. (Lond.), M.R.C.S. (Eng.)

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Area, 1,889 acres.      Population, 7,179.

*Births*, 191. Birth-Rate, 26·6.

*Deaths*, 129. Death-Rate, 17·9. Infantile Mortality, 188·4.  
Zymotic Death-Rate, 4·1.

*Housing*.—51 houses reported on under the Housing and Town Planning Act 1909; these are dealt with by a Sub-Committee.



26 new houses have been certified as fit for occupation. 98 houses have had new sanitary conveniences built and 8 renovated.

*Water Supply.*—New reservoir efficient and there was no shortage during the hot and dry summer of 1911; the analysis of the water proved it to be satisfactory for drinking purposes.

*Drainage, etc.*—Plans approved and powers obtained from the Local Government Board for extending sewers, etc., at an estimated cost of £1,400. Refuse still thrown into the streams, a fact which is under consideration.

*Bakehouses.*—Registered. *Slaughter-houses.*—Registered.

*Dairies, Cowsheds and Milkshops.*—Registered and regularly inspected. Many improvements being carried out to Dairies and Cowsheds.

*Common Lodging Houses.*—Nil. *Offensive Trades.*—Nil.

*Vaccination.*—Satisfactory: not many exemptions.

*River pollution.*—Nil.

*Infectious Diseases Prevention Act 1890.*—Adopted.

*Public Health Act Amendment Act 1890* —Adopted.

*Isolation Hospital.*—Nil.

#### REMARKS.

The Zymotic and Infantile Death-Rates, which have helped to raise the General Death-Rate, are much too high, in spite of the dry summer of 1911. More attention should be given to street cleaning, and watering and general scavenging. It is fortunate that Dr. Nicholls is able to speak well of the improvements in the dairies and cowsheds, a subject which requires so much attention in the county generally. This is also the only district in which there is not an adverse comment on the work of vaccination; it is pleasing to note that this is satisfactory, and that there are not many exemptions. The drainage of the Warren and Halsetown should receive immediate attention from the Borough Council.



## PENZANCE BOROUGH.

M.O.H.—R. C. LAWRY, M.R.C.S., L.R.C.P. (Lond.)

Area, 362 acres.      Population, 13,488.

*Births*, 227.    Birth-Rate, 16·8.

*Deaths*, 224.    Death-Rate, 16·6.    Infantile Mortality, 185.  
Zymotic Death-Rate, 2·2.

*Housing*.—“The area of the Borough is 362 acres, and there are 3,118 inhabited houses. During the year 22 new houses were added. The Council has under consideration a scheme for the provision of new dwellings for workmen. The general condition of the dwelling houses in the Borough is good, and, with few exceptions, they are well supplied with tap water and water closets. A few houses in old courts have a common tap and closet supply. No new cottages have been added during the year; forty have been renovated, the repairs being structural to roofs, walls, floors, etc. Three hundred and sixty nuisances were abated; these consisted of insanitary courtlages, defective closets and drains, dilapidated cottages, and overcrowding.

During the year the Sanitary Inspector has reported on 231 houses under the Public Health Acts, and on 78 under the Housing and Town Planning Act. Sixty-two houses were reported as being defective; 40 under the Public Health Acts, and 22 under the Housing and Town Planning Act. Five new water closets were built in one of the old parts of the town, and 55 old unsatisfactory “hopper” closets have been replaced by modern “wash-downs.” Four hundred and eleven notices (ten Statutory) were issued from the Sanitary offices; forty of these referred to water fittings. Forty-five building plans were submitted to the Authority: these included 22 for new houses, two for motor garages, one for a Secondary School, one for a pavilion, and one for a hotel. All new building plans are closely reported on by the Surveyor, and great care is observed that they conform to the building bye-laws of the Borough.”



*Water Supply.*—“The waterworks are the property of the Corporation, and the water comes from two sources, viz : (1) from a disused mine adit and moorland surface mixed, (2) and from a deep well ; is conveyed to town by two trunk mains, and connected to them is about 13 miles of various size mains supplying shipping, railway station, 27 steam and other motor power engines, public lavatories, etc., and close on 14,000 people for whom, with the visiting public, 4,000 sanitary conveniences are in use, and 13,000 taps and other fittings. All dwelling houses are separately supplied with tap water, except in courts, where there is a common supply from taps fixed in convenient places for the tenants. There was a continuous supply of water during the drought of 1911, but restrictions were placed on the use of it except for domestic purposes. During the autumn the Council authorised the boring of a deep well, 122 feet deep, through the clay and into the granite, at Hendra, on the west side of lower Trengwainton valley. The bore is  $13\frac{1}{2}$  inches in diameter for a depth of 20 feet, and  $11\frac{1}{2}$  inches for the remaining 102 feet : the cost has been £238. The maximum yield of the bore hole is 82,000 gallons in 24 hours. The Council has also decided to extend the adits of the present pumping station at Polteggan. By these means it is hoped to considerably augment the water supply of the Borough. The water has no plumbo-solvent action. The water from the new well was analysed by the Borough Analyst, who pronounced it to be of excellent drinking quality.”

*Drainage, etc.*—The sewerage of the Borough is on the water-carriage system to the sea, where the contents of the sewers are discharged ; the drains are in good condition, and the sewers well ventilated. House drains are in good condition. In all new houses the drains are tested before occupation of the premises. In cases of suspected drains, these are tested by means of the smoke test. The main sewers are extended to meet the requirements of new streets and buildings. Fifty-six house drains were repaired during the year, including several choked drains. All houses are supplied by the Corporation with covered receptacles, and refuse is re-



moved under contract twice a week in the summer, and three times a fortnight in the winter months, in covered carts; Corporation employés assist in the removal. Three hundred and sixty nuisances were abated during the year. These included insanitary premises, defective closets and drains, dilapidated cottages, and overcrowding. No prosecutions were necessary."

*Bakehouses*—Sixteen, regularly inspected and well kept.  
*Slaughter-houses*.—Eighteen, registered, frequently visited and well kept.

*Dairies, Cowsheds and Milkshops*.—25 Milkshops, regularly inspected and well kept.

*Common Lodging Houses*.—Two, registered and kept satisfactory.

*Offensive Trades*.—One, no complaints.

*Vaccination*.—About 35% exemptions.

*River pollution*.—Nil.

*Infectious Diseases Prevention Act 1890*.—Adopted.

*Public Health Act Amendment Act 1890*.—Adopted.

*Isolation Hospital*.—14 beds.

#### REMARKS.

The Common Lodging House, which had a surprise visit paid by the County M.O.H., is a credit to the inspecting officials, as well as to its owner, on account of its cleanliness and adherence to regulations and bye-laws evinced at the time of the visit. With regard to Housing, Water Supply, and Drainage, the actual report of the Medical Officer of Health of the Borough is quoted as far as possible in the above headings, with little abridgement, on account of the importance of this town.

The Isolation Hospital is not fit for the effective isolation of more than two types of infectious disease, and would be better for one infection only, such as Scarlet Fever, Diphtheria, or Typhoid Fever, during epidemic time; more blocks are required for efficiency, and there is much to be said for the isolation of the infectious sick belonging to several more Authorities under a Joint Hospital Board, in order to effect this object.



**PADSTOW (U.D.)**

M.O.H — F. HARVEY, M.R.C.S. (Eng.), L.S.A.

Area, 191 acres.      Population, 2,480.

*Births*, 26.    Birth-Rate, 10·48.

*Deaths*, 32.    Death-Rate, 12·9.    Infantile Mortality, 76·9.  
Zymotic Death-Rate, 0·8.

*Housing*.—Accommodation for the working classes with a few exceptions noted in a detailed report, is above the average. Plans passed for the erection of 16 workmen's dwellings. The main defect in the insanitary houses reported on is that there is no "through draught," a very important consideration

*Water Supply*.—Moorland source—underground adits for six miles. No likelihood of contamination, and according to the Clinical Research Report it is of "extraordinary organic purity."

*Drainage, etc.*—Adequate. Sewer in High Street has been relaid. Discharge into the river Camel. (See remarks below). Daily removal of house refuse by scavengers.

*Bakehouses*.—Registered.    *Slaughter-houses*.—One, registered.

*Dairies, Cowsheds and Milkshops*.—Registered and regularly inspected.

*Common Lodging Houses*.—Nil.    *Offensive Trades*.—Nil.

*Vaccination*.—Numerous exemptions.

*River pollution*.—Nil (except of river Camel).

*Infectious Diseases Prevention Act 1890*.—Adopted.

*Public Health Act Amendment Act 1890*.—Adopted.

*Isolation Hospital*.—Nil.

REMARKS.

The Vital Statistics for this town, with the exception of the Birth-Rate, are exceedingly good, considering the adverse year of 1911, and reflect great credit on the sanitary administration of the Urban District Council. Dr. Harvey speaks

of the numerous exemptions from vaccination in his preliminary report to the County Council; it would be well if those responsible for receiving the evidence of applicants as to their convictions, that vaccination is really prejudicial to their children, would satisfy themselves that it is not due to their ignorance of the subject, in the face of overwhelming evidence in its favour, and that their objections are really conscientious. The sewage outfall into the river Camel should receive the attention of the District Council, and also the several instances of very insanitary houses.

### NEWQUAY (U.D.)

M.O.H.—A. HARDWICK, M.D. (Durh.), M.B., B.S.,  
L.S.A., D.P.H.

Area, 865 acres. Population, 4,415.

*Births*, 75. Birth-Rate, 16·7.

*Deaths*, 52. Death-Rate, 11·8. Infantile Mortality, 66·6.  
Zymotic Death-Rate, 0·67.

*Housing*.—352 houses have been inspected under the above Acts during the past year. 147 houses were reported as being without sufficient flushing apparatus to outdoor closets. 14 houses were reported as having unsuitable closet accommodation. 6 houses were reported as having insufficient closet accommodation. 2 houses were closed as being defective and overcrowded. 9 houses were reported as not having a pure water supply. This has since been provided. 13 houses were reported as needing repairs, ventilation, lime-washing, and minor defects.

14 new flushing apparatus have been affixed to closets in 14 cottages, where formerly none existed. 19 houses have been renovated, defective drains repaired, and defective courts paved. 11 new cottages have been erected by private owners, with suitable closet arrangements and drainage."

*Water Supply*.—The exceptionally prolonged drought of the past summer severely taxed the resources of the water



supplies throughout the country, and in many towns and districts the inconveniences and distress inevitable in a water famine were acutely felt. It is, therefore, gratifying to report that throughout the whole of the summer, and at a time when the town was crowded with its season influx of visitors, the supply of water was fully equal to the demands of the town, no case either of deficiency in quantity or defective quality being reported throughout the summer."

*Drainage, etc.*—£215 has been spent on new drainage work during the year, viz., in building manholes and gullies, and laying and renovating sewers in Beach Road, Gover Road, Trenance Hill, Crantock Street, South Quay Hill, Station Road, Edgecumbe Road, and Marcus Hill.

Work in connection with the New Drainage Scheme has been proceeded with throughout the year, and considerable progress has been made. The total amount expended on this work to December 31st was £4,540, as follows:—

Sinking and brick lining the shafts, cutting and brick lining tunnels under the Beacon Cliff, for town outfall	...	...	£593	0	0
Excavating for, laying and concreting 1,521 yards of 21in., 18in., and 15in. stoneware pipe sewers, manholes, along Gannel valley	...	...	2,070	0	0
Sinking shafts and cutting tunnels under part of Duchy lands, and under cliffs at Pentire	1,283	0	0		
Sundry works and easements required for the works	...	...	594	0	0

The removal of house refuse is carried out by the Sanitary Authority, the scavengers collecting daily. Covered sanitary carts are employed, and the bye-laws require that householders should provide suitable covered vessels for the purpose of removal. The sum of £286 8s. 2d. was spent in street scavenging and watering, and £335 2s. 1d. on the collection and disposal of house refuse."

*Bakehouses.*—Registered. *Slaughter-houses.*—Registered.

*Dairies, Cowsheds and Milkshops.*—Registered and regularly inspected.

*Common Lodging Houses.*—Nil. *Offensive Trades.*—Nil.

*Vaccination.*—Exemptions as in other districts.

*River pollution.*—River Gannel polluted by sewage.

*Infectious Diseases Prevention Act 1890.*—Adopted.

*Public Health Act Amendment Act 1890.*—Adopted.

*Isolation Hospital.*—Eight beds.

#### REMARKS.

The Vital Statistics for Newquay are eminently satisfactory, and especially when we consider the adverse figures throughout all England, caused by the general unhealthiness of the year under review. Dr. Hardwick speaks of a lack of a disinfector; this apparatus is essential if the method of dealing with Infectious Disease is to be considered quite efficient. If it were possible to unite with other Authorities in the formation of a Joint Hospital Board, taking it for granted that the present hospital would be retained, it would be more economical and efficient for one of the very best disinfectors to be purchased and maintained by the Joint Authority. In the above summary the portions in inverted commas are quoted from Dr. Hardwick's report. Piggeries should not be kept "in connection with" slaughterhouses, and it is urgent and imperative that the slaughterhouse bye-laws be revised in order to prevent dangerous nuisance, with possible wholesale food poisoning arising; strong action would be in the best interests of Newquay.

#### ST. AUSTELL (U.D.)

M.O.H.—The late WM. MASON, L.R.C.P., L.R.C.S. (Edin.)  
L.M., L.A.H. (Dub.)

Area, 196 acres. Population, 3,365.

*Births*, 51. Birth-Rate, 15·15.



*Deaths*, 51. *Death-Rate*, 15·15. *Infantile Mortality*, 274·5. *Zymotic Death-Rate*, 1·78.

*Housing*.—Scarcity of artisan's dwellings. Average population per house, 4. Attention should be given to this subject on account of the obvious requirements of the china-clay workers. The provisions of the Housing and Town Planning Act 1909 and the Housing (Inspection of District Regulations) 1910, should be rigidly adhered to.

*Water Supply*.—Some restrictions had to be put on the supply during the abnormally dry summer. Quality of the water excellent as proved by analyses; no evidence of its being plumbosolvent.

*Drainage, etc.*—Attention must be given to the fact that it is illegal to pollute any stream with crude sewage; most of the houses are reported to have separate water closets, connected with sewers laid along the line of the stream and carried away "well beyond the area." In a few instances one W.C. serves two dwellings; there are few privies, according to the report of the M.O.H. Scavenging supervised by the Surveyor, and Council's carts deposit refuse one and a half miles out.

*Bakehouses*.—Regularly inspected. *Slaughter-houses*.—Registered.

*Dairies, Cowsheds and Milkshops*.—Inspection under reorganisation.

*Common Lodging Houses*.—Nil. *Offensive Trades*.—Nil.

*Vaccination*.—Well carried out. Few conscientious objections.

*River pollution*.—Sewage outfall.

*Infectious Diseases Prevention Act 1890*.—Adopted.

*Public Health Act Amendment Act 1890*.—Adopted.

*Isolation Hospital*.—Nil.

#### REMARKS.

Owing to the decease of the late Medical Officer of Health at the time of preparation of his Annual Report, very little information is available, as it had to be taken from such papers as were obtained by the acting M.O.H., Dr.



Shaw. It would appear, however, that all the Vital Statistics were able to be furnished for the year, 1911. From these one must conclude that the Infant Death-Rate is a very adverse figure, being the highest of the 43 districts in Cornwall, and more than double that returned for England and Wales; that the Birth-Rate is so exceedingly low is not sufficient to explain the circumstance, and it behoves the Urban District Council to leave no stone unturned in the matter of careful sanitary administration in the future, as so much depends on efficient scavenging and house and street cleansing towards counteracting the evil. The same remarks would to some extent apply to Diphtheria, which has been prevalent; no houses should be erected on "made soil" (refuse heaps). Such action is dangerous, and certainly predisposes to the disease.

### REDRUTH (U.D.)

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M.O.H.—F. HICHENS, M.D. (Lond.), M.B., B.S., M.R.C.S. (Eng.),  
L.S.A., D.P.H.

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Area, 4,006 acres. Population, 10,815.

*Births*, 247. Birth-Rate, 22·8.

*Deaths*, 228. Death-Rate, 21·09. Infantile Mortality, 242·9.  
*Zymotic Death-Rate*, 3·8.

*Housing*.—"During the year 24 houses have been inspected under this Act—a very small number; much inconvenienced by Inspector leaving in the early part of the year, then an interval before the new Inspector arrived. The houses selected for inspection are in the poorest part of the town. There were 111 inmates, averaging between 4 and 5 per house. All had adequate water supply, connected with town service. In 16 instances the closet accommodation consisted of long hopper pans, no flush, and are depending on the people themselves to keep them flushed. 14 of them quite clean and in good order. 5 water closets with modern flushing cisterns. Two privies, and in each instance uncovered



pits. Two cases of mild overcrowding. Twenty out of the twenty-three had D traps in the yards; three modern stoneware gullies. D traps in most cases not satisfactory. Two-thirds of the yards clean and in good repair; the remainder dirty and unpaved. Arrangements for removing refuse by pan or box in each case. Two houses, no back door nor back window; one house had steep dark stairs without hand-rail. Most of the above defects have been remedied.

The Council feel there is not sufficient house accommodation for artisans and labourers, with a reasonable rental, so a committee has been formed to discuss this question, with the result that a plot of ground of sufficient area for forty houses is being considered."

*Water Supply.*—Constant service, adequate in amount for all parts of the district, and good in quality as shewn by recent analysis.

*Drainage, etc.*—Number of houses, 2,722; number of fresh and waste-water closets, 1,119; number of privies with fixed receptacles, 1,634; houses supplied with water, 1,982; number of conversions from privies to water closets during the years 1908, 1909, 1910, 1911:—32, 16, 23, and 20. The Council permit the erection of sanitary conveniences other than water closets in new buildings in the outlying districts. During 1911: Private closets built, 40; privies, ashpits, new, 7; privies converted to water closets, 20; houses supplied with water, 45; new houses certified, 23; houses connected with sewer, 45; earth closets, 4. Heanton Terrace, new water closet connected with sewer; privy demolished. Trewirgie Road, drain repaired; new trap to bath. St. Day Road, drains of two houses defective and repaired. Back Lane East, dilapidated house demolished. Middleton's Row, water closet and drain repaired. King Street, connection made with main sewer. Plainangwarry, new water closet replacing old defective privy. Treruffe Hill, two water closets repaired. Falmouth Road, new water closet, and privies repaired. South Downs, two new water



closets and two new connections with main sewer. Gilly Hill, two new water closets and connected with sewer; Back Lane West, very dirty yard; repaired and cleaned. Fore Street, insufficient ventilation to W.C.; attended to. Trevingey Terrace, two defective privies repaired. Balmoral, defective yard gullies; put right. Basset Street, privy defective; repaired. Dopps Terrace, new water closet and connected with sewer; privy demolished. Coronation Road, new sewer. Coose Lane, new sewer. New main drain put in for 10 houses at Mount Ambrose. The drains of 10 houses have been disconnected from cesspools and connected with the main sewer, the cesspools being destroyed.

*Bakehouses.*—6 registered. *Slaughter-houses.*—12, registered and in good order.

*Dairies, Cowsheds and Milkshops.*—7, registered and regularly inspected.

*Common Lodging Houses.*—One, registered. *Offensive Trades.*—Nil.

*Vaccination.*—Small percentage only vaccinated.

*River pollution.*—Nil.

*Infectious Diseases Prevention Act 1890.*—Adopted.

*Public Health Act Amendment Act 1890.*—Adopted.

*Isolation Hospital.*—Jointly with Rural District. 14 beds, 4 infections isolated.

#### REMARKS.

The sewage works require consideration on account of their inadequacy; the proposed scheme should meet this difficulty. The Vital Statistics for the Urban District are not satisfactory, even after taking into consideration the unusually unhealthy year of 1911, as it has proved throughout England and Wales. The Death-Rate is one of the highest, but this has been adversely influenced by the enormous Infant Mortality Rate, which, in turn, has also increased the Zymotic Rate. After carefully considering the work of Dr. Hichens in combatting the epidemic of Summer Diarrhœa, which latter is the main cause of the trouble, one must con-



clude that despite his special precautions in inducing his Council to issue stringent orders with regard to scavenging, doubling the usual number of men employed, something still requires attention for the future by the Urban District Authority. The severe type of Diphtheria prevalent also gives the hint. There are too many privies with fixed receptacles, 1,634 in number. The rapid conversion of these to the water-carriage system, with frequent and efficient scavenging, ample street watering, the free distribution of literature on Infant Care, and the establishment of a Committee of ladies for home visiting, should do much to prepare for such a summer as that of 1911, when so many infants lost their lives.

### CAMBORNE (U.D.)

M.O.H.—J. T. THOMAS, M.R.C.S., L.R.C.P. (Lond.)

Area, 6932 acres.      Population, 15,829.

*Births*, 400.    Birth-Rate, 25·2.

*Deaths*, 267.    Death-Rate, 16·8.    Infantile Mortality, 175·0.  
Zymotic Death-Rate, 2·59.

*Housing*.—841 dwelling houses were inspected, and these were occupied by 2,356 adults and 952 children. 26 back-to-back houses. 17 without privy accommodation. The remaining defects discovered were in connection with drainage, water supply, and privy accommodation. 30 plans for new houses were approved by the Council, and certificates for 28 new houses were granted. Of these, 15 were provided with water closets, the remainder with middens. Erection of new houses is under direct supervision of the Surveyor. The house accommodation has greatly improved during the last few years, and the number of suitable houses is adequate for artisans, but not for the labourers. The rental is more than the ordinary labourer can afford to pay.

*Water Supply*.—The town, and also Tuckingmill, Beacon, Kehelland and Treswithian, are supplied by the Camborne



Water Company, the water coming from two separate sources at Cargenwyn and Boswyn, derived mainly from springs coming from granite rock. The water passes through filter beds before delivery, and the service is constant. Though the summer was exceptionally dry, the Water Company were able to maintain a constant supply of water for domestic purposes. An additional supply of water has been brought to Copper Hill Adit, and extension from this source is under contemplation. The new Reservoir at Boswyn has been made watertight, and the enlargement of No. 3 Reservoir at Cargenwyn has been completed. A new 8-inch main has been laid from the 11-inch main outside the Free Library to Roskear, to supply the Eastern district. Mains have been extended in Albert Street, Adelaide Street, Carnarthen Street, William Street, Park Road, Kitty's Lane, and Eastern Lane.

*Drainage, etc.*—The drains of 30 houses have been connected with the main sewers, and those of 18 others have been repaired. The sewers are periodically flushed, chiefly by means of flushing tanks, and have also been disinfected from time to time with Izal. Attention should be immediately given to the drainage of Beacon, Wheal Gerry, Hughville Street, portions of Roskear Row, Mount Pleasant Road, and Pengegon. They are badly in need of efficient drainage, but nothing can be done until the scheme for sewage disposal is proceeded with. Flushing tank required at Bareppa. The midden pits and ashpits in the town itself, and also at Tuckingmill, Pengegon, Troon, Beacon, Knave-go-bye, and Wheal Gerry, have been systematically cleansed by the Authority, and 6,645 loads of refuse removed. There are 3,040 houses, 1,824 of which are provided with middens with fixed receptacles, 94 with moveable ones, the remainder being provided with water closets. 18 middens have been replaced by W.C.'s, and 10 new W.C.'s provided.

*Bakehouses.*—Nine, registered. *Slaughter-houses.*—Thirteen, registered.

*Dairies, Cowsheds and Milkshops.*—Forty-five, registered and regularly inspected.



*Common Lodging Houses.*—One, registered. *Offensive Trades.*—Tallow melting, no complaints.

*Vaccination.*—Exemptions increasing.

*River pollution.*—Nil.

*Infectious Diseases Prevention Act 1890.*—Adopted.

*Public Health Act Amendment Act 1890.*—Adopted.

*Isolation Hospital.*—Eight beds.

#### REMARKS.

A well-controlled Public Abattoir would be a distinct advantage to the town. Dr. Thomas' remarks that "the midden system at its best is bound to be insanitary and detrimental to the public health," furnish the whole key to the solution of Camborne's difficulty with regard to the epidemic of Diarrhœa, and the adverse Infantile Mortality figure produced by it; the latter has affected the Zymotic Death-Rate, and also the General Death-Rate. It is to be hoped, however, that with the new sewage disposal scheme, the 1,824 middens with fixed receptacles will be very greatly diminished in number, the privies being largely converted to the W.C. system, and dry ashbins substituted where possible. The dust nuisance also contributes much to these evils, and a liberal watering of the streets with efficient and frequent cleansing, in conjunction with the improved scavenging and night-soil arrangements suggested, should, after the installation of a proper sewage disposal system, effectively prevent such adverse Vital Statistics. It is satisfactory however, to note the high Birth-Rate, which is some indication of the prosperity of the town.

#### PHILLACK (U.D.)

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M.O.H.—Z. B. MUDGE, L.R.C.P. (Lond). M.R.C.S., (Eng.)

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Area, 2,909 acres. Population, 3,611.

*Births*, 73 Birth-Rate, 20·2.

*Deaths*, 57. Death-Rate, 15·78. Infantile Mortality, 164·3.  
Zymotic Death-Rate, 1·38.

*Housing.*—Inspections by M.O.H. and Sanitary Inspector, special attention being given to 19 houses in West Terrace and Market Street. Urgent cases of overcrowding occurred during the year. Need of an adequate water supply interferes with the erection of workmen's dwellings. General condition of house accommodation not good.

*Water Supply.*—A scheme for a Public Water Supply is now in contemplation; the present sources, private wells, etc., are hopelessly inadequate.

*Drainage, etc.*—Quite inefficient for want of a proper water supply. Scavenging is carried out satisfactorily in the populous parts of the district, and the dangerous rubbish tips have been abolished.

*Bakehouses.*—Nil. *Slaughter-houses.*—Registered.

*Dairies, Cowsheds and Milkshops.*—Registered and inspected frequently.

*Common Lodging Houses.*—Nil. *Offensive Trades.*—Nil.

*Vaccination.*—Many exemptions.

*River pollution.*—Nil.

*Infectious Diseases Prevention Act 1890.*—Not adopted.

*Public Health Act Amendment Act 1890*—Part III. adopted.

*Isolation Hospital.*—Nil.

#### REMARKS.

Dr. Mudge complains of experiencing much difficulty in dealing with nuisances arising from the keeping of pigs. No greater nuisance under the Public Health Act, 1875, could be committed than that so frequently associated with the keeping of these animals, and it is to be hoped that Statutory notices will be served in all instances in the future, and the law rigidly enforced, on account of the grave danger caused to the public health.

The Council must consider the water supply of this district as one of the most urgent duties they have to perform,



as on it depends the whole question of drainage and its consequent effect on the general health. The Infectious Diseases Prevention Act, 1890, should be adopted immediately, with the whole of its provisions.

### HAYLE (U.D.)

M.O.H.—Z. B. MUDGE, L.R.C.P. (Lond), M.R.C.S. (Eng.)

Area, 247 acres. Population, 1,028.

*Births*, 19. Birth-Rate, 18·48.

*Deaths*, 23. Death-Rate, 22·3. Infantile Mortality, 157·8.  
Zymotic Death-Rate, 0·97.

*Housing*.—Accommodation satisfactory. 25 houses thoroughly inspected in West Terrace and Penpol Meadow, under the provisions of the Housing and Town Planning Act 1909; none were condemned as unfit for habitation, only minor alterations requiring to be made.

*Water Supply*.—Abundant during the drought of 1911, although care and supervision as to waste were found necessary.

*Drainage, etc.*.—No complaints are reported by the Medical Officer of Health. The scavenging is carried out in a satisfactory manner at the hands of the District Council.

*Bakehouses*.—Registered. *Slaughter-houses*.—Nil.

*Dairies, Cowsheds and Milkshops*.—Registered and regularly inspected.

*Common Lodging Houses*.—Nil. *Offensive Trades*.—Nil.

*Vaccination*.—Many exemptions.

*River pollution*.—Nil.

*Infectious Diseases Prevention Act 1890*.—Not adopted.

*Public Health Act Amendment Act 1890*.—Parts I.–IV. adopted.

*Isolation Hospital*.—Nil.

## REMARKS.

Although the Death-Rate and Infantile Mortality-Rate are apparently much too high, and hardly support the remarks of the Medical Officer of Health to the effect that "during the past 12 months the district has been singularly healthy," yet there is much to confirm Dr. Mudge's contention. Out of 19 Births, only 3 children died under one year old, an event which might be expected anywhere, yet this brings the Infantile Mortality-Rate up to 157.8, much greater than that for all England and Wales; this is an excellent object lesson for those who criticise and attach undue importance to the Vital Statistics of very small districts for a single year. Again, the Zymotic Death-Rate is high in reality, yet actually only one death was due to Zymotic Disease. As to the General Death-Rate, 9 of the 23 deaths were practically due to old age, which fact again supports the contention of Dr. Mudge that the district is a healthy one. The whole of the provisions of the Infectious Diseases' Prevention Act, 1890, ought to be adopted.

## MADRON (U.D.)

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M.O.H.—W. R. WILSON, F.R.C.S.I., L.R.C.P.I., L.S.A.,  
D.P.H., R.C.P. and S.I.

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Area, 5,571 acres. Population, 3,703.

*Births*, 66. Birth-Rate, 17.8.

*Deaths*, 60. Death-Rate, 16.2. Infantile Mortality, 106.0.  
Zymotic Death-Rate, 2.14.

*Housing*.—Committee appointed to consider the Housing of the Working Classes, report that this is adequate, and there are still some vacant houses existing. Private enterprise is likely, however, to add to the number in the Heamoor district.

*Water Supply*.—Springs feeding Council Reservoir supply Heamoor with a piped service; the water rises from a granite basis, is not lead solvent, nor liable to



contamination. Tolcarne has a plentiful supply, derived from springs in the higher district of Tregavara, which is piped to two collecting tanks, thence to a reservoir containing 8,000 gallons, and to stand-pipes. Some houses are connected under the scheme, but all houses should be connected. Madron Churchtown has a supply which is piped from springs in the vicinity of the Wishing Well to two pumps and a tap. It is insufficient for the provision of water closets, and a better supply should be provided so that water closets could be connected with the sewer now existing, and which is carried to the sea. Wherrytown and Chyandour receive their supply from the Borough of Penzance.

*Drainage, etc.*—Madron Churchtown has a sewerage system connected to the Heamoor sewer, and carried to the sea. Too few water closets installed for want of a sufficient water supply. Earth closets, pail closets, and privies are mostly in use, some of which are too near dwelling houses, and are offensive. Heamoor has a good sewerage system; every house in Heamoor has a water closet. The sewerage of Tolcarne has been the object of a Local Government Board Inquiry, held for the purpose of obtaining a loan for a new sewerage and water scheme, the sewerage to be carried to the sea to a point below low-water mark. This scheme did not receive the sanction of the Board, a joint scheme being recommended with the Paul Urban District Council. Four sewers open into the Tolcarne River near its mouth, and an outlet exists in the sea wall at high-water mark; these cause a nuisance in the summer months. Scavenging by the Council's contractor is carried out at Madron and Heamoor once a week, and at Tolcarne and Wherrytown twice a week, the refuse being removed in covered carts.

*Bakshouses.*—Nil. *Slaughter-houses.*—One, which is now closed.

*Dairies, Cowsheds and Milkshops.*—Cowsheds, 31; Milkshops, 2; Dairies, 6. Registered and regularly inspected.

*Common Lodging Houses.*—Nil. *Offensive Trades.*—Nil.

*Vaccination.*—A good many exemptions.



*River pollution.*—Tolcarne River alleged to be polluted by sewage matter and also by the discharge into the river of the by-products of a factory situated outside the district. Many complaints have been made of a smell arising from the river, and the nuisance should be abated as soon as possible.

*Infectious Diseases Prevention Act 1890.*—Adopted.

*Public Health Act Amendment Act 1890.*—M.O.H. does not know if adopted or not.

*Isolation Hospital.*—Nil.

#### REMARKS.

The Zymotic Death-Rate is the most unsatisfactory feature of the Vital Statistics. Dr. Wilson has given full attention to the investigation of the Diphtheria outbreak; this has been long continued, there being throughout the year as many as 39 cases and 3 deaths. 8 of the cases were in Tolcarne, 1 at Wherrytown, 24 at Heamoor, 3 at Madron Churchtown, and three in the country. The Heamoor outbreak caused the greatest amount of anxiety on account of its pertinacity. Diphtheria, once established, becomes often, like Phthisis, a matter of housing, although it is more closely associated with the actual drainage, etc.; old and insanitary houses are loth to allow the extermination of the germ, which too readily lodges in the throats of the dwellers again, whether they contract the disease or merely act as "carriers." Dr. Wilson's insistence on antitoxin prophylaxis and treatment will, however, do much for both of these classes, if full advantage is taken of the Diphtheria Antitoxin Order of 1910.

#### PAUL (U.D.)

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M.O.H.—H. R. PHILLIPS, B.A. (Camb.), M.B., B.C., L.S.A.

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Area, 3,446 acres. Population, 6,014.

*Births*, 135. Birth-Rate, 22·4.

*Deaths*, 94. Death-Rate, 15·6. Infantile Mortality, 162·9.  
Zymotic Death-Rate, 2·32.



*Housing.*—Few houses in Newlyn are satisfactory; some are back to back, others also with little air space, whilst many have no back doors and no sanitary conveniences at all. Overcrowding is rare. Streets and lanes are narrow and paved with cobbles, which harbour dirt. Housing inspection of all parts of the Urban District by the M.O.H. Accommodation fair elsewhere than in Newlyn and Mousehole.

*Water Supply.*—Newlyn supplied from an adit above the village to a tank of 25,000 gallons capacity and thence to stand pipes. Mousehole is supplied from Jacob's well to a reservoir of 15,000 gallons capacity with stand pipes, which yield an adequate supply of pure water. 11 new houses supplied with water; also an institute, a school, and a fish cellar.

*Drainage, etc.*—A better system of slop drainage needed for Newlyn, in lieu of the "bolts" which empty over the cliff into the harbour; the town should be sewered properly. At Street-an-Nowan the main sewer discharges outside the harbour, and an additional sewer is to be laid at Paul Hill. At Mousehole the sewage discharges into the harbour by pipes, 276 feet having been laid to carry to sea. Excreta is collected with the house refuse and ashes. In other parts of the district there are cess pits and tanks. At Newlyn Town and Mousehole excreta and house refuse, are collected and placed on the foreshore at the south of Newlyn. The collection is made four days a week by horse and cart at Newlyn, and by man and barrow at Mousehole.

*Bakehouses.*—12, registered. *Slaughter-houses.*—Nil.

*Dairies, Cowsheds and Milkshops.*—42 dairies, 8 milkshops; registered and regularly inspected.

*Common Lodging Houses.*—Nil. *Offensive Trades.*—Nil.

*Vaccination.*—Exemptions increasing.

*River pollution.*—Reported pollution of the Newlyn River by waste water from the Sanatogen Works. The Urban District Council, in conjunction with officials of the firm, have now rectified this, and it is hoped that pollution of the river will cease as far as the Newlyn side is concerned.



*Infectious Diseases Prevention Act 1890.*—Not adopted.

*Public Health Act Amendment Act 1890.*—Not adopted.

*Isolation Hospital.*—Two beds at Penzance Isolation Hospital.

#### REMARKS.

The Zymotic and Infantile Death-Rates are high, the exceptionally hot and dry summer of 1911 being largely responsible for the undue rise. To help to obviate such a condition in the future, it would be well to circulate suitable literature on Infant Rearing to those houses in which births have been registered, until such time as the Notification of Births' Act, 1907, shall be adopted. In addition to this, the Council would be well advised to adopt some or all of the provisions of the Infectious Diseases Prevention Act, and the Public Health Acts Amendment Act of 1890. The absence of closets at Newlyn and Mousehole is deplorable. Despite the artistic appearance of many of the houses at Newlyn, they are certainly unfit for human beings to live in, and should be closed for this purpose absolutely and at once, even if they are allowed to remain as interesting relics for the artist's brush.

#### LUDGVAN (U.D.)

M.O.H.—H. R. PHILLIPS, B.A. (Camb.), M.B., B.C., L.S.A.

Area, 4,543 acres      Population, 2,213.

*Births*, 58. Birth-Rate, 26·2.

*Deaths*, 38. Death-Rate, 18·07. Infantile Mortality, 103·4.  
Zymotic Death-Rate, 1·8.

*Housing.*—Sufficient for the needs of the inhabitants. Periodical inspections made. Four closed as unfit for habitation and 11 renovated. Further renovating and closure, with demolition is required. 4 new houses erected.

*Water Supply.*—Satisfactory generally. The Churchtown is supplied with adequate and pure water from a local spring, being conveyed in covered trenches and iron pipes. At Crowlas, Lower



Quarter, White Cross and Canonstown, the water is piped from springs. Long Rock has a joint water scheme with West Penwith with pipes to houses from reservoir. At Nancledra 20 houses are supplied from a spring which is in some danger of contamination.

*Drainage, etc.*—There is no proper system of drainage in the district. Particularly a drainage scheme is required at Long Rock, where new houses are being built, and, owing to the new works of the Great Western Railway, extra houses will be required. The district has generally a cess-pit and pail-closet system, with some water closets draining into cesspits; the excreta from these is used as manure on the land, the slop water being thrown on the gardens. House refuse is mixed with manure and seaweed and used on the soil. There is no public scavenging, each householder being responsible for the removal of refuse and emptying of privies. Manure heaps used for the soil still exist in different parts of the district. Much more objectionable are the cart-loads of fish brought into the district and used as manure, giving off a most offensive odour at times.

*Bakehouses* —Nil. *Slaughter-houses*—Two, registered.

*Dairies, Cowsheds and Milkshops.*—Six, registered and regularly inspected.

*Common Lodging Houses.*—Nil. *Offensive Trades* —Nil.

*Vaccination.*—Exemptions increasing.

*River pollution.*—Nil.

*Infectious Diseases Prevention Act 1890.*—Not adopted.

*Public Health Act Amendment Act 1890.*—Not adopted.

*Isolation Hospital.*—Nil.

#### REMARKS.

Both the Infectious Diseases' Prevention Act and the Public Health Acts Amendment Act of 1890 should be adopted for the district. Much more attention should be given to drainage, scavenging, and excrement disposal, than has been done in the past. Nuisances of accumulation or deposit should be dealt with immediately they are committed, and

especially should the cart-loads of fish for manure so much objected to by Dr. Phillips, be kept under rigid control and supervision, in order to avoid danger to the public health. Public scavenging is absolutely essential, and should be taken up without delay by the Urban District Council.

### ST. JUST (U.D.)

M.O.H.—R. G. NESBITT, L.R.C.P.I. & L.M., L.R.C.S.I., L.M.

Area, 7,634 acres. Population, 5,753.

*Births*, 154. Birth-Rate, 26.7.

*Deaths*, 114. Death-Rate, 19.8. Infantile Mortality, 194.8  
Zymotic Death-Rate, 2.9.

*Housing*.—House to house inspection carried out and isolated visits. General accommodation good. Three new houses built and two in course of erection. Good bedroom accommodation is what the working classes find great difficult to obtain: lack of privy accommodation has received the consideration of the Council.

*Water Supply*.—Prospects of improved water supply for St. Just, Truthwall, Botallack and Higher Boscaswell during 1912: the matter has had the attention of Mr. Hetherington of the Local Government Board. Public wells should have their water periodically analysed.

*Drainage, etc.*.—The matter of sewage outfall into Bosorme stream is urgent, and the nuisance and river pollution cannot be allowed to continue, and the proper disposal of the sewage of this district will have to be considered. Scavenging is carried out by employees of the District Council.

*Bakehouses*.—Registered. *Slaughter-houses*.—Registered.

*Dairies, Cowsheds and Milkshops*.—Not registered but regularly inspected.

*Common Lodging Houses*.—Nil. *Offensive Trades*.—Nil.



*Vaccination.*—Exemptions increasing.

*River pollution.*—Bosorne stream polluted by sewer emptying into it. The District Council should take steps to remedy this.

*Infectious Diseases Prevention Act 1890*—Not adopted.

*Public Health Act Amendment Act 1890.*—Adopted.

*Isolation Hospital.*—Nil.

#### REMARKS.

The pollution of Bosorne stream should be discontinued, and proper arrangements made for sewage disposal. It would be advisable for the Council to adopt the whole of the clauses of the Infectious Diseases' Prevention Act, 1890. The Zymotic and Infantile Death-Rates are abnormally high, and indicate that sanitary supervision of this district requires to be most searching and rigid. The Diphtheria epidemic has been long continued, and not without fatality, there being six deaths; Dr. Nesbitt has been beset with great difficulties in controlling it, largely on account of the peculiar type of the disease, which frequently had all the clinical characteristics of a follicular tonsillitis. Many "carriers" must have been at work. The schools at Pendeen have been recently closed, and the provisions of the Diphtheria Antitoxin Order of 1910 put into force. Here, as in other places, housing appears to have some relationship to the outbreak, which fact appears to emphasise the need for very careful disinfection and attention to the drainage. Thanks are due to Dr. Cooper, of Pendeen, for his assistance in determining the nature of certain aberrant types of the disease. Literature on Infant care should be freely circulated, and a committee of ladies would do excellent service in saving infant lives by visiting the homes in which births have occurred, and advising on this important branch of hygiene.

**HOLSWORTHY (R.D.) Part of.**

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M.O.H — W. G. GRAY, M R C.S., L R C P., L M.

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Area, 5,302 acres. Population, 325.

Since the total population is 7,347, it is obvious that statistics for the small Cornish population would be of little value, as compared with the larger Devonshire portion; hence it is better, from the point of view of a County Medical Officer, to consider this district as belonging to Devon.

It was in this district that attention was first drawn to the epidemic of Poliomyelitis in the summer, and Dr. Gray's valuable work and records of cases, etc., may be seen in the report of the Local Government Board on the outbreak.

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## Part V.

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### ISOLATION HOSPITALS.

Cornwall is not properly supplied with hospitals for the isolation of the infectious sick, and the recent Government report on the epidemic of Poliomyelitis emphasises this fact as "a matter of much importance, not only to the inhabitants, but to the large migratory population which comes—often with children—for holiday and health." The accompanying map indicates this lack of accommodation generally, and entire absence of it in many places which urgently require it

Out of 1,349 cases of Infectious Disease notified, only 87 were isolated in hospitals. During a long-continued epidemic period, 595 cases of Diphtheria were notified, only 33 of which were removed, despite the danger of attempting isolation in the patients' own homes. This is exceedingly unsatisfactory, and is sufficient to help one to arrive at the conclusion that Local Authorities cannot take this matter too seriously. Of the existing hospitals, much that is adverse can be said in several instances, mainly due to the smallness of each individual scheme; for efficiency, a hospital ought to be ready to receive at the shortest notice the earliest cases of any outbreak of infectious disease, and for this it is necessary to have larger up-to-date institutions under Joint Hospital Boards, with a staff of nurses always resident. Better schemes for drainage could then be entertained, and it would not be necessary to have to find a nurse at the last minute, and to see to the airing of beds, etc., at a time when assistance is urgently required for other purposes. The motor ambulance brings such schemes for large areas within reasonable reach for practical purposes.

# Administrative County of Cornwall.

RURAL DISTRICTS.  
(BOUNDARIES).

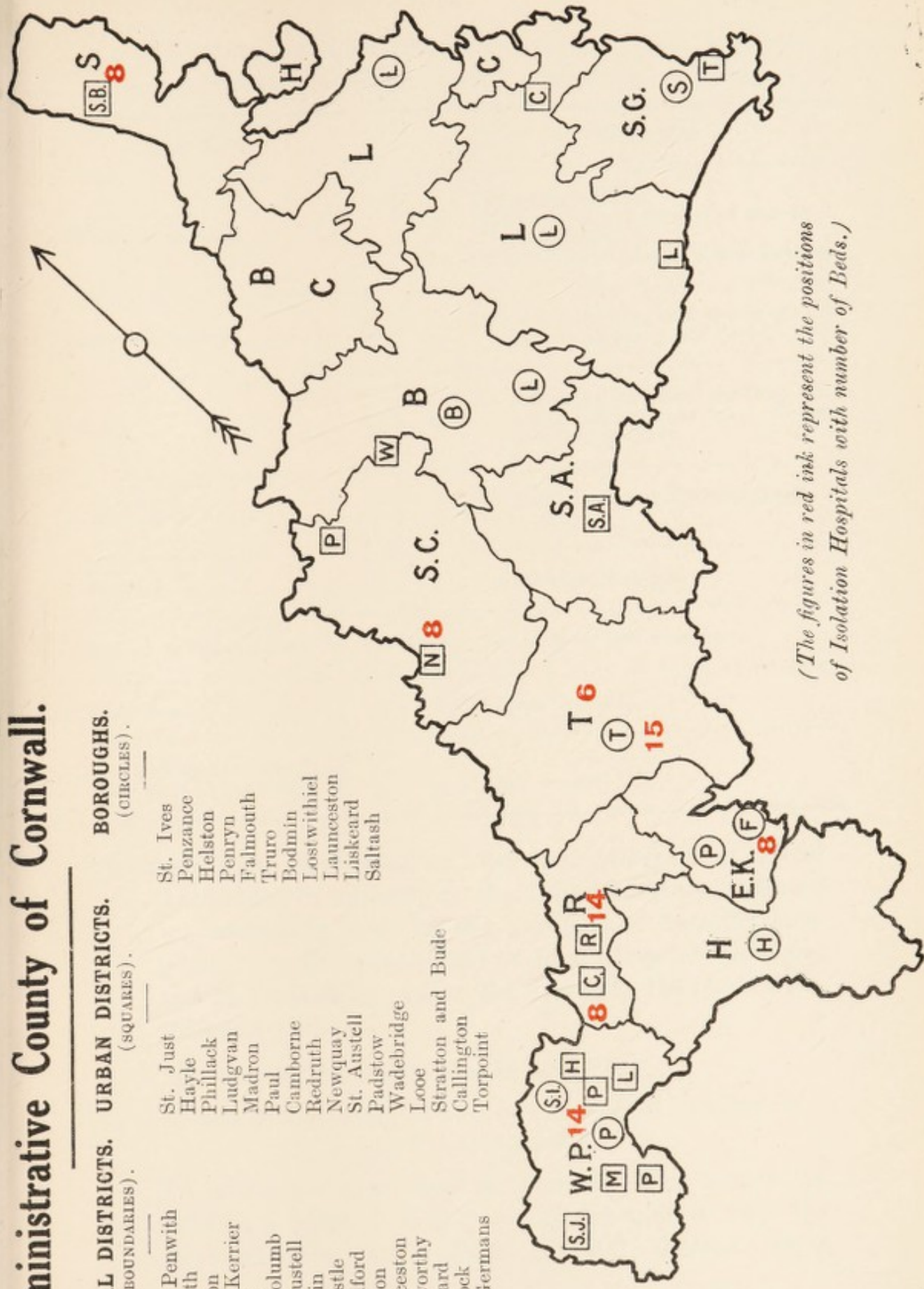
West Penwith  
Redruth  
Helston  
East Kerrier  
Truro  
St. Columb  
St. Austell  
Bodmin  
Boscastle  
Camelford  
Stratton  
Launceston  
Holsworthy  
Liskeard  
Calstock  
St. Germans

URBAN DISTRICTS.  
(SQUARES).

St. Just  
Hayle  
Phillack  
Ludgvan  
Madron  
Paul  
Camborne  
Redruth  
Newquay  
St. Austell  
Padstow  
Wadebridge  
Looe  
Stratton and Bude  
Callington  
Torpoint

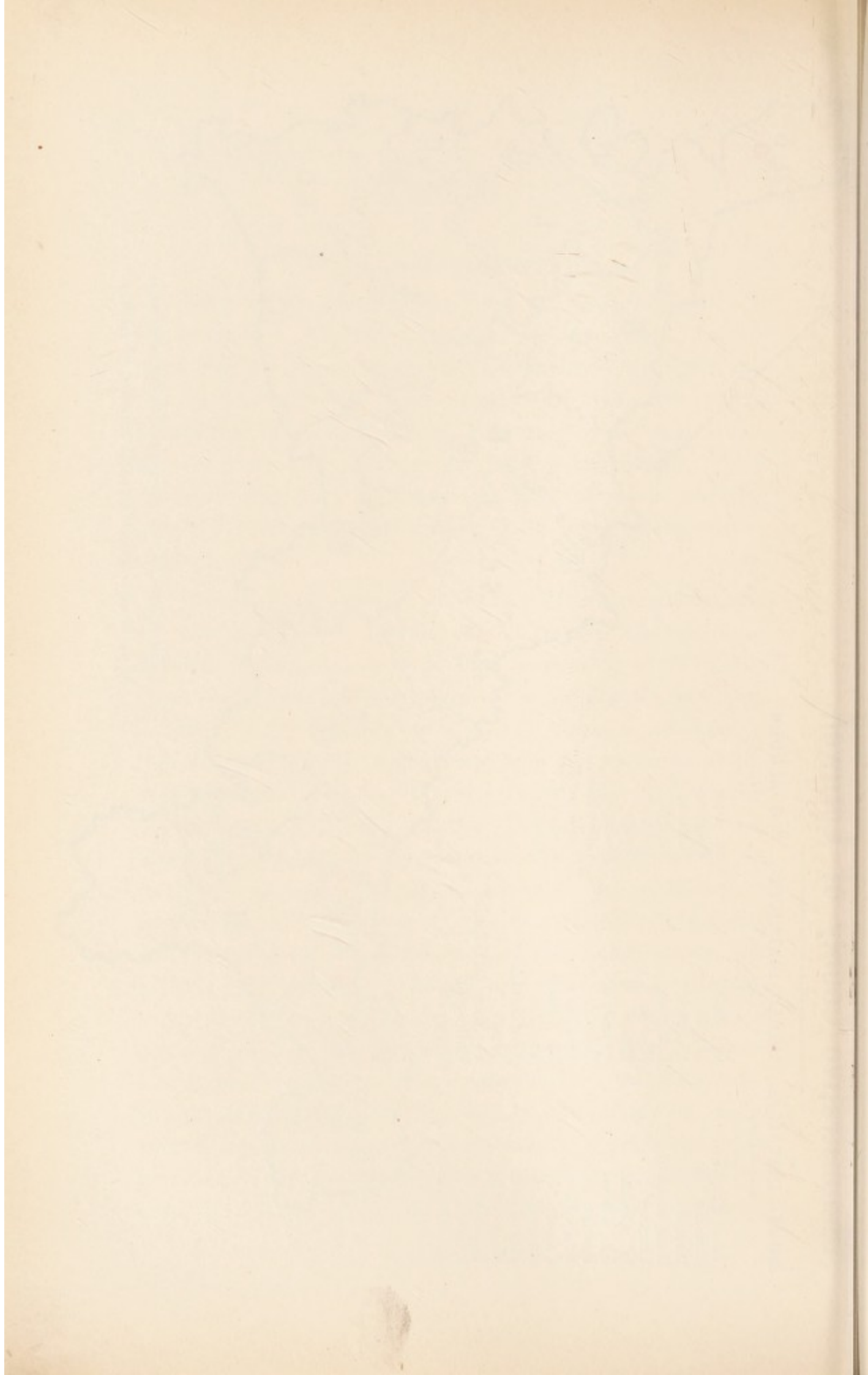
BOROUGHS.  
(CIRCLES).

St. Ives  
Penzance  
Helston  
Penryn  
Falmouth  
Truro  
Bodmin  
Lostwithiel  
Launceston  
Liskeard  
Saltash



(The figures in red ink represent the positions of Isolation Hospitals with number of Beds.)





The following table illustrates comparatively the type of accommodation supplied by such authorities as possess it :

DISTRICT.			REMARKS.
Falmouth Borough ... ..	8	2	Temporary building. Water supply and disposal of excreta unsatisfactory. On the site of an additional Port Hospital.
Penzance Borough ... ..	14	2	Temporary building, used also by the Port Sanitary Authority and Paul U.D.C.
Truro ... ..	15	2	No administration block, discharge block or disinfecting apparatus. No provision for Small-pox.
Camborne ... ..	8	1	No administration or discharge blocks. No Laundry.
Newquay ... ..	8	2	Used also for Small-pox.
Redruth Urban and Rural	12	For Small-pox.	Conjointly for both districts.
Truro Rural ... ..	6	2	Scheme too small.
Stratton Rural and Stratton and Bude Urban jointly	8	2	Newly erected.

Extracts from Memorandum for the guidance of Local Authorities in applying to the Local Government Board for sanction to loans for the provision of Isolation Hospitals ; for the constitution of Joint Hospital Districts ; and in proceedings under the Isolation Hospitals Acts, 1893 and 1901.

(a) Under the Public Health Act, 1875.

Provision of Hospitals by two or more Local Authorities acting in combination.

When two or more local authorities desire to combine in providing a hospital, it is generally desirable to form the combined districts into a Joint Hospital District, by a



Provisional Order under Section 279 of the Public Health Act, 1875, with a Joint Hospital Board as the governing body.

A Joint Hospital Board consists of members elected by the local authorities concerned, together withh such ex-officio members as the Local Government Board may by the Provisional Order determine (Section 280, Public Health Act, 1875).

A Joint Board is a body corporate with power to hold lands for the purposes of their constitution, and, with the sanction of the Local Government Board, they are empowered to borrow money.

They are empowered to issue precepts to the local authorities within the United District, for the sums to be contributed by such authorities towards the expenses of the Joint Board, and, in case of default, to proceed in a summary manner to raise such sums.

Moreover, by the Provisional Order constituting the United District the contributions of the constituent authorities are fixed and the Joint Board are directly invested with various powers in relation to their meetings and officers, conduct of business, contracts, purchase of land either by agreement or compulsorily, arbitration, audit of accounts, and legal proceedings.

**(b) Under the Isolation Hospitals Acts, 1893 and 1901.**

Under the Isolation Hospitals Act, 1893, County Councils are empowered to constitute hospital districts, consisting in each case either of a single local area or of two or more local areas as defined by section 26 of that Act, as amended by section 6 of the Isolation Hospitals Act, 1901; and under section 8 (3) of the Act of 1893 "if any local authority, having jurisdiction within any part of the proposed hospital district, object to the formation of such a district, or to the addition or subtraction thereto or therefrom of any local area within their jurisdiction, such authority may at any time within three months from the date of the order appeal to the Local Government Board, and the decision of such Board shall be conclusive."



By section 5 of the Act of 1901, it is provided that the Local Government Board may by their decision on any such appeal confirm, disallow, or modify the order of the County Council as they think fit.

When a hospital district has been constituted, the County Council must form a committee, and if a local authority within a hospital district formed by a County Council is aggrieved by the mode in which the hospital committee is constituted it may appeal to the Local Government Board, who may modify the constitution of the committee in such manner as they think expedient and just.

Under section 22 of the Act of 1893 "a County Council may borrow on the security of the county rate, and in manner provided by the Local Government Act, 1888, any money required for the purpose of carrying into effect the provisions of this Act." The sanction of the Local Government Board is required to any such borrowing by a County Council.

Hospital Committees, and the local authorities having jurisdiction in the areas included within a hospital district set up by a County Council, are not empowered themselves to borrow money for the purposes of the Isolation Hospitals Act, 1893; but under section 22 of that Act any loans borrowed by a County Council to carry the provisions of the Act into effect, and any other money expended by them for the purposes of that Act, together with interest thereon, shall be repaid to the County Council out of the local rate, as in the Act directed. By section 4 of the Act of 1901 the interest to be paid in pursuance of section 22 of the Act of 1893 on any money repayable to a County Council shall be at a rate agreed upon between the County Council and the hospital committee concerned, or, in default of agreement, determined by the Local Government Board.

By section 1 of the Isolation Hospitals Act, 1901, any local authority (including a joint board) within the meaning of the Public Health Act, 1875, which has provided under that Act, or any local Act, a hospital for the reception of the



sick, may, with the sanction of the Local Government Board, and with the consent of the Council, transfer it to the Council of the County within which the hospital, or any part of the district of the authority is situate. Any hospital so transferred shall be appropriated to a district formed under the Isolation Hospitals Act, 1893, and may be adapted as an isolation hospital.

Under section 2 of the Act of 1901, the power conferred on a County Council by section 21 of the Act of 1893 to contribute to the expenses of an isolation hospital is declared to include the power to contribute to any hospital for infectious diseases provided by a local authority (including a joint Board) within the meaning of the Public Health Act, 1875, but the consent of the Local Government Board is required to an annual contribution by the County Council to a hospital the cost of providing which, or of any permanent extension or enlargement of which, has been defrayed otherwise than out of borrowed money.

In dealing with applications from County Councils for sanction to loans under these Acts, the Board act upon the principles which guide them in dealing with applications by local authorities for sanction to borrow money for hospital purposes under the Public Health Act, 1875.

Local Government Board,  
Whitehall,  
June, 1910.

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## Part VI.

### ADMINISTRATION OF THE HOUSING OF THE WORKING CLASSES ACT, 1890—1909.

Full information concerning the Housing of the Working Classes will be found for each district in Part IV. of this book, but Part VI. is given up to a comparative and general review of the subject throughout the county.

#### **Housing and Town Planning, Etc., Act, 1909.**

(Short Epitome).

#### PART I.

[HOUSING.]

Sections 1 to 9 inclusive give facilities for acquisitions for land and other purposes of the Housing Acts. Part III. of the Housing of the Working Classes Act, 1890 (in this part of the Act referred to as the principal Act), shall take effect without adoption. The Local Authority may purchase land compulsorily for purposes of Part III. of the principal Act by an Order submitted to, and confirmed by, the Local Government Board. Loans may be obtained for an extended period, not to exceed 80 years.

Sections 10 to 13 provide powers for enforcing the execution of the Housing Acts. Complaints may be made to the Local Government Board as to default of Urban or Rural Districts under Part II. or Part III. of the principal Act, and the Board, if satisfied, after holding a public Local Inquiry, may make an Order directing the defaulting Authority to act; where this Order is not complied with, the Local Government Board may, with the consent of the County Council, make an Order directing the County Council to act, instead of enforcing the Order on the defaulting Authority. On the complaint of a Parish Council or meeting or any four inhabitant householders of the district to the County Council of default by a Rural District Council as to Part III. of the principal Act, the County Council may,



after holding a public Local Inquiry, resolve to take over the powers with respect either to the whole district or any parish. The Local Government Board may, on application by the County Council, confer on the latter as respects any Rural District all or any of its powers under Part III. of the principal Act. Expenses incurred under this Section (13) to be general County expenses.

Sections 14 to 16 inclusive deal with contracts by landlords, and require that the letting for habitation of a house, or part of a house, after the passing of this Act, at a rental, so far as the Administrative County of Leicestershire is concerned, not exceeding £16, shall imply that the house is in all respects reasonably fit for human habitation except when let on three years', or longer, lease upon certain terms. The landlord is required to keep the house in all respects reasonably fit for human habitation.

Sections 17 to 21 amend the procedure for closing Orders and demolition Orders, and require Local Authorities to make from time to time inspection of their districts with a view to ascertaining whether any dwelling house therein is in a state so dangerous or injurious to health as to be unfit for human habitation, and to comply with such Regulations and keep such records as may be prescribed by the Board. Appeals against a closing Order or demolition Order may be made to the Local Government Board.

Sections 22 to 29 inclusive deal with amendments with respect to improvement and re-construction schemes, and among other matters give the Local Government Board power to permit the Local Authority to modify or abandon their scheme.

Sections 30 to 35 deal with financial matters.

Sections 36 to 46 are general amendments, and give power of entry to premises, power to the Local Government Board to obtain a report on any crowded area, power to two or more Local Authorities to take joint action, the prohibition of back-to-back houses, and power to the Local Government Board to revoke unreasonable bye-laws.



Sections 49 to 51 define that the provisions of this part to be deemed to be part of the appropriate part of the principal Act, and also define the terms "street," "dwelling house," "owner," and "cottage."

Sections 52 and 53 apply to Scotland.

## PART II.

### TOWN PLANNING.

Section 56 enables the Local Government Board to make Regulations for, among other things, securing early notice of a proposed scheme to any Council interested in the land.

Section 61 enables the Local Government Board to take action on any representation after holding a public Local Inquiry.

## Part III.

### COUNTY MEDICAL OFFICERS.

#### COUNTY PUBLIC HEALTH AND HOUSING COMMITTEE.

Sec. 68 requires the appointment of County Medical Officer of Health, gives to the Local Government Board some power to prescribe the duties of the County Medical Officer, gives the County Medical Officer the same powers of entry as a District Medical Officer of Health, and provides certain conditions with regard to tenure of office.

Sec. 69 :—

- (1) The Clerk of a Rural District Council shall forward to the County Medical Officer of Health a copy of such representations, etc., required by Section 45 of the principal Act (given above) to be sent to the County Council.
- (2) A District Medical Officer of Health shall give to the County Medical Officer of Health "any information it is in his power to give, and which the Medical Officer of Health for the County may reasonably require from him for the purposes of his duties prescribed by the Local Government Board."
- (3) Any dispute between the District Clerk, the District Medical Officer of Health, and the County Medical Officer



of Health under this Section shall be referred to the Local Government Board, whose decision shall be final and binding.

- (4) Failure of the District Clerk or Medical Officer of Health to comply with this Section, if information is laid by the County Council, renders himself liable to a fine not exceeding £10.

Sec. 71.—Every County Council shall establish a Public Health and Housing Committee, to which all matters relating to public health and the housing of working classes (except the power of raising a rate or borrowing money) shall stand referred. The County Council to receive and consider the Report of the Committee. The County Council may delegate to the Committee any of their powers as respects public health and the housing of the working classes, except the power of raising a rate or borrowing money, and except any power of resolving that the powers of the District Council in default should be transferred to the Council.

Sec. 72.—The County Council may promote the formation or extension of, and may assist, Societies on the co-operative basis, having for one of their objects the erection or improvement of dwellings for the working classes, and for this purpose may, with the consent of, and subject to Regulations made by, the Local Government Board, make grants or advances to the Society, any such advance not to exceed two-thirds of the value of the property.

Seeing that the Inspection of Districts in the case of several Local Authorities would, from the reports furnished, hardly appear satisfactory, it is important to draw urgent attention to the following :—

STATUTORY RULES AND ORDERS, 1910.

No. 919.

**Housing of the Working Classes, England.**

Unhealthy Houses.

THE HOUSING (INSPECTION OF DISTRICT) REGULATIONS, 1910.

DATED SEPTEMBER 2, 1910.

To the several Local Authorities in England and Wales for



the purposes of Part II. of the Housing of the Working Classes Act, 1890 :—

And to all others whom it may concern.

Whereas by sub-section (1) of Section 17 of the Housing, Town Planning, Etc., Act., 1909, it is enacted that it shall be the duty of every local authority within the meaning of Part II. of the Housing of the Working Classes Act, 1890 (herein-after referred to as "the local authority") to cause to be made from time to time inspection of their district, with a view to ascertain whether any dwelling-house therein is in a state so dangerous or injurious to health as to be unfit for human habitation, and that for that purpose it shall be the duty of the local authority, and of every officer of the local authority, to comply with such regulations and to keep such records as may be prescribed by the Local Government Board.

Now, therefore, We, the Local Government Board, in pursuance of the powers given to Us in that behalf, by this Order, prescribe the following Regulations ; that is to say :—

Article I.—(1) The Local Authority shall as early as practicable after the date of this Order take into consideration the provisions of sub-section (1) of Section 17 of the Act of 1909, and shall determine the procedure to be adopted under these Regulations, to give effect to requirements of that sub-section in regard to the inspection of their district from time to time.

(2) The local authority shall as part of their procedure make provision for a thorough inspection to be carried out from time to time according to the varying needs or circumstances of the dwelling-houses or localities in the district of the local authority.

(3) The local authority shall cause to be prepared from time to time by the Medical Officer of Health, or by an Officer designated by them but acting under his direction and supervision, a list or lists of dwelling-houses the early inspection of which is, in the opinion of the Medical Officer of



Health, desirable. The list or lists may, if thought fit, relate to the dwelling-houses within a defined area of the district without specifying each house separately therein.

Article II.—The inspection under and for the purposes of sub-section (1) of Section 17 of the Act of 1909 shall be made by the Medical Officer of Health, or by an Officer designated by the local authority but acting under his direction and supervision, and the Officer making inspection of any dwelling-house shall examine the state of the dwelling-house in relation to the following matters, namely :—

- (1) The arrangements for preventing the contamination of the water supply.
- (2) Closet accommodation.
- (3) Drainage.
- (4) The condition of the dwelling-house in regard to light, the free circulation of air, dampness, and cleanliness.
- (5) The paving, drainage, and sanitary condition of any yard or out-houses belonging to or occupied with the dwelling-house.
- (6) The arrangements for the deposit of refuse and ashes.
- (7) The existence of any room which would be in pursuance of sub-section (7) of Section 17 of the Act of 1909 be a dwelling-house so dangerous or injurious to health as to be unfit for human habitation.
- (8) Any defects in other matters which may tend to render the dwelling-house dangerous or injurious to the health of an inhabitant.

Article III.—Records of the inspection of dwelling-houses made under and for the purpose of sub-section (1) of Section 17 of the Act of 1909 shall be prepared under the direction and supervision of the Medical Officer of Health, and shall be kept by the Officer of the local authority making the inspection or by some other Officer appointed or employed for the purpose by the local authority.

The records may be kept in a book or books or on separate sheets or cards, and shall contain information, under appropriate headings, as to :—

1. The situation of the dwelling-house, and its name or number.
2. The name of the Officer who made the inspection.
3. The date when the dwelling-house was inspected.
4. The date of the last previous inspection and a reference to the record thereof.
5. The state of the dwelling-house in regard to each of the matters referred to in Article II. of these Regulations.
6. Any action taken by the Medical Officer of Health, or other Officer of the local authority, either independently or on the directions of the local authority.
7. The result of any action so taken.
8. Any further action which should be taken in respect of the dwelling-house.

Article IV.—The local authority shall, as far as may be necessary, take into consideration at each of their ordinary meetings the records kept in pursuance of Article III. of these Regulations, and shall give all such directions and take all such action within their powers as may be necessary or desirable in regard to any dwelling-house to which the records relate, and a note of any directions so given and the result of any action taken shall be added to the records.

Article V.—The Medical Officer of Health shall include in his Annual Report information and particulars in tabular form in regard to the number of dwelling-houses inspected under and for the purposes of Section 17 of the Act of 1909, the number of dwelling-houses which on inspection were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation, the number of representations made to the local authority with a view to the making of closing orders, the number of closing orders made, the number of dwelling-houses the defects in which were remedied



without the making of closing orders, the number of dwelling-houses which after the making of closing orders were put into a fit state for human habitation, and the general character of the defects found to exist. He shall also include any other information and particulars which he may consider desirable in regard to the work of inspection under the said Section.

Article VI.—The Medical Officer of Health and any other Officer of the local authority shall observe and execute all lawful orders and directions of the local authority in regard to or incidental to the inspection of the district of the local authority under and for the purposes of Section 17 of the Act of 1909, and the execution of these Regulations.

Article VII.—In these Regulations “the Act of 1909” means the Housing, Town Planning, Etc., Act, 1909.

Article VIII.—These Regulations may be cited as the Housing (Inspection of District) Regulations, 1910.

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Housing in Cornwall constitutes one of the greatest barriers to Sanitary progress ; on the amount of housing depends the quantity of water supply required, and on both depend the amount and quality of the drainage. Villages have been built on entirely wrong plans, and particularly is this the case with regard to many of the seaside ones, where drainage and sewerage are rendered difficult to undertake on account of the low-lying position and consequent want of fall ; in many instances foreshores are unavoidably polluted on account of the faulty position of sewer outfalls relative to tides and prevailing currents.

Many cottages have no backyards and no sanitary conveniences ; these ought certainly to be condemned as unfit for habitation, as well as innumerable others which are rendered unfit for divers reasons. The difficulty then arises with regard to the Local Authority being compelled in the case of closure of insanitary houses, to make provision for the population so displaced. A certain section of the com-

munity are unfortunately content to live in mere hovels at an absurdly low rent. With a general lack of houses for the lower working classes, owners are not usually disposed to spend money on repairs when the tenants are content to live in these cottages as they are. A notable exception, however, exists in the owners of the cottages which appear in the photographs (Plates I. and II.) of the frontispiece. These were undergoing repairs on a rather lavish scale, and the owners willingly offered to put windows at the back on the advice of the County Medical Officer, thus converting cottages which were insanitary on account of want of "through draught," into sanitary dwellings of a good type. It is thus possible to repair many of the apparently hopeless houses and to render them fit for habitation. Speaking generally, however, many of the local authorities have not adopted housing schemes when it has clearly been their duty to do so, and it is to be hoped that it will not be necessary in the ensuing year for the County Council and Local Government Board to use their powers under Sections 10 to 13 of the Housing and Town Planning, Etc., Act, 1909.

On the following page will be found a summary of the work done, in the various Sanitary Districts, under the Housing (Inspection of District) Regulations, 1910.



## HOUSING (Inspection of District) REGULATIONS 1910.

From the Reports of Medical Officers of Health and Sanitary Inspectors.

Sanitary Districts.	No. of Inspections	No. of houses closed.	No. Repaired	No. of new cottages built.	General character of defects found.
<b>RURAL.</b>					
Stratton ... ..	...	0	20	9	Improper sanitary conveniences
Launceston ... ..	...	1	many	5	Defects due to damp walls
Calstock ... ..	133	1	1	...	Insufficient closet accommodation
Boscastle ... ..	...	0	0	0	---
Camelford ... ..	151	0	8	11	Water supply and drainage
Liskeard ... ..	499	1	50	20	Roofs and walls defective
St. Germans... ..	73	3	11	14	---
Bodmin ... ..	...	0	0	10	In places lack of closet accomod-
St. Columb ... ..	275	2 condemned	4	35	Faulty drainage [ation
St. Austell ... ..	...	0	17	85	The usual defects
Truro ... ..	...	10	60	...	Walls dilapidated
Redruth ... ..	80	2	8	37	Overcrowding
	(400 General)				---
East Kerrier ... ..	...	3	8	17	Dilapidation
Helston ... ..	60	5	3	24	Ventilation, &c.
West Penwith ... ..	...	1	19	12	No backyards, &c.
<b>URBAN.</b>					
Callington ... ..	250	0	16	2	Improper drainage
Stratton and Bude ... ..	820 (General & Special)	1	0	0	Insanitary and overcrowding
Launceston ... ..	...	0	...	0	Faulty drainage
Liskeard ... ..	400	1	58	4	Overcrowding and faulty drainage
Torpoint ... ..	144	4	65	7	Re bad ventilation and defective sanitary conveniences
Looe ... ..	168	2	1	0	Drainage, etc.
Saltash ... ..	65	0	54	6	Sanitary conveniences
Bodmin ... ..	...	...	...	4	---
Lostwithiel ... ..	35	0	16	0	Drainage
Wadebridge ... ..	...	0	14	5	Dilapidation
Truro City ... ..	224	4	74	1	Dampness, drainage, etc.
Penryn ... ..	...	0	4	0	Dilapidation
Falmouth ... ..	927 (General & Special)	1 and 1 Demolished Voluntarily	150	15	Drainage
Helston ... ..	97	0	4	6	Structural defects
St. Ives ... ..	53 (Special)	0	98	26	Sanitary conveniences
Penzance ... ..	309	0	40	0	Drainage and dilapidation
Padstow ... ..	...	0	0	1	---
Newquay ... ..	352	2	14	11	Overcrowding and structural
St. Austell ... ..	...	0	26	12	Drainage
Redruth ... ..	66	0	41	23	Drainage, etc.
Camborne ... ..	841 (General & Special)	2	148	...	Ventilation (back to back, etc.)
Phillack ... ..	19	1	2	0	---
Hayle ... ..	25	0	few	...	---
Madron ... ..	...	0	17	0	Drainage, etc.
Paul ... ..	...	0	11	11	Defective drains
Ludgvan ... ..	...	4	6	4	Dilapidation—lack of doors—ventilation
St. Just ... ..	...	0	5	7	Structural and lack of sanitary conveniences

In Part IV will be found such information on the Housing of the Working Classes as is supplied by the M.O.H. for the respective districts, together with comments where necessary in each instance.



## Part VII.

### ON THE WATER SUPPLY OF THE SEVERAL COUNTY DISTRICTS.

The condition of supply in each district is given in Part IV. of this book, but the following require further consideration and special notice.

*Calstock R.D.* Dr. Bowhay reports : " In consequence of the prolonged drought of last summer, great care had to be taken in economising the supply of water. The supply, however, was on the whole satisfactory, and any weak points which have been discovered are about to be remedied.

No extensive works have been undertaken during the year. At Newbridge Hill, Gunnislake, 400 feet of three-inch cast-iron water mains have been laid and fitted with flush-out valve. At King Street a new inspection chamber has been fixed to the main, special provision having been made for its use in case of fire. At Dimson, 1,000 feet of two and three-inch water mains have been cleaned and repaired.

The Council have resolved, during the coming year, to carry out somewhat extensive improvements in the water supply, including :

(1) Enclosing and covering such portion of the Drake-walls Leat with concrete as it is most liable to pollution where passing through fields.

(2) Laying a separate main for the Gunnislake supply, from Drakewalls Mine to the end of the Dimson Road, and constructing a new reservoir at Drakewalls.

(3) Replacing the present earthenware pipes, conveying the water from Dimson Farm, with three-inch cast-iron pipes.

(4) Relaying the present main in Commercial Street, Gunnislake, with new three-inch cast-iron pipes, if necessary. This will remove any cause of complaint of a defective supply to the houses in this street.



The supply from Dimson Adit has become polluted with clay, in consequence of mining operations, and it has been found necessary to divert this stream from the main, as long as the liability to pollution continues."

*St. Columb R.D.* Dr. Mc.Mahon reports: "Owing to the long drought and excessive heat during the summer months of 1911, the springs had been greatly reduced, and the dearth of water in consequence was very greatly felt throughout the district, and more especially at St. Columb Town, where it was found imperative to turn off for several hours by day during dry weather, owing to wastage through leaky fittings and to the reckless extravagance on the part of some householders, who never seem to be impressed with the need for economy.

The quality of the St. Columb water has never been impeached, but the present supply is totally inadequate for the requirements of the Town during the summer months, and this was never so manifestly the case as it was during the past dry season.

The various supplies are not periodically examined, but when, through illness or any cause, suspicion is cast on any particular supply, a sample of the suspected water is analysed, and if found impure, steps are taken to protect the springs or procure another supply.

35 certificates of supply have been granted to new houses."

It is clear that it is the duty of the District Council to take steps to supply the town from a constant and pure source, in order that the difficulty may be solved for all time. There is an excellent supply as far as St. Columb Minor, and it is to be hoped that a similar scheme will be found practicable for St. Columb Major, with obvious advantage to the health and convenience of its inhabitants.

*Bodmin R.D.* Urgent *re* Port Isaac Water Supply, etc. Population about 800.

Present water supply.—Public supply from two wells fitted with pumps. (1) Town pump. (2) Mine pit corner pump. (3) Various private wells.



The Town Pump is situated in the lower part of the town, about 20 feet above sea level. This pump is the only supply for people living in the lower part of the town. There is no distribution, water is fetched from the pump as required. This water has apparently not been analysed for years, but it is certainly subject to pollution. Recently the water was obviously polluted with subsoil water, and the contents of some old drains. This has been improved by digging trenches around the well, removing old drains, etc. There is a sewage polluted stream flowing about 25 feet away from this well, and it is suggested that much of the well water is water that has percolated through the subsoil into the well. Although there is generally plenty of water in this well, there are complaints of difficulty in obtaining water, either owing to pump defects, or as a result of over-pumping. At any rate, the result is, at times, absence of water for use.

The Mine Pit Corner Pump is situated half way up the hill, and is used by the residents in the higher part of the town.

These two pumps constitute the public water supply, and they frequently cause trouble. There is an unknown number of private wells. For instance, the school has a private well. Several houses (where they take in visitors) have private wells, about which little is known, except that they frequently dry up in the summer. In these cases, water is supplied to the W.C.'s, and while the supply lasts the W.C.'s are flushed and drain into short sewers. When the private supply fails, water must be fetched from the public pumps, in barrels, carts, etc., and obviously very little flushing can be provided for the drains and sewers.

The above facts show that improved sanitary arrangements are urgently needed. The first and obvious requirement is an improved public water supply; following this, the provision of a complete system of sewers, and the adoption of W.C.'s should follow as a matter of course.

It may be said definitely that the wells in use at present are insufficient to supply the amount of water needed. 20



gallons per head should be the minimum provided ; although no doubt a much smaller amount will be used at first, except when many visitors are present.

Fresh sources of water :—

(1) Poltreworgey.—Above the town. This supply is sufficient, and at a sufficiently high level, so that no pumping would be required. Possible impurity : Antimony (possibly iron). Water expected to be quite good. This is the supply that has been under consideration lately.

(2) Pennant. Half-way up the hill. It is reported that abundant water could be obtained from this spring.

(3) Various small springs, insufficient alone, and therefore only suitable as reserves, or in combination.

(4) Moor water from near Camelford ; probably much too expensive.

The waters Nos. 1 and 2 should be analysed and the amount carefully gauged, although they are expected to be suitable.

Apparently the L.G.B. formerly refused to allow Port Isaac alone to be constituted as a "separate contributory place," contending that St. Endellion Parish, of which Port Isaac is only a small part, should be "the contributory place." As the farmers in the above parish will not be assisted by a supply of water to Port Isaac, they are probably not in favour of providing such a supply. There is no question or suggestion of providing a water supply to any part of the parish except Port Isaac, with the possible exception of a very small hamlet.

The need of a proper public water supply is urgent ; the question has been under discussion for very many years. Various sources of supply have been examined and reported on, but no definite action has been taken. Pressure is now being put on the Local Authority by the County Council.

*West Penwith R.D.* It is obvious from the following report of the Surveyor that there is much need of a proper public water supply at Carbis Bay ; negotiations are, how-



ever, in progress with a view of meeting the demands at an early date.

" (1) The number of houses in the proposed Carbis Bay water district is 150.

(2) The number without a water supply within a reasonable distance is 50. These are at Chyangweal, along the St. Ives main road, and near the St. Ives boundary; the people have to fetch their water from a public shoot a distance of 300, and some 400 yards or more.

(3) The number with an insufficient water supply, in addition to the Chyangweal portion is probably about 20.

(4) Two new houses were built in the Chyangweal portion during 1910, and provided with a rain-water tank holding about 5,300 gallons. Most of the new houses during the last few years have been built at the head of Carbis Bay, adjoining the main road, and as the present water supply is coming from this direction, the new houses have the first supply, to the disadvantage of those at the lower level."

*Liskeard Borough.* Dr. Nettle reports: "The district is abundantly supplied with wholesome water by the public service. The water arises from uncultivated upland sources, and is distributed by gravity through iron pipes from the service reservoir to all parts of the district. The supply is constant, is of satisfactory organic purity, and entirely free from lead. The following analysis is of a sample taken from a tap in my own house, the house pipe being of lead, and the water was the first drawn in the morning, after being in the pipe the whole of the preceding night."

	Parts per 100,000.	Grains per Gallon.
Total Solids (dried at 120°C.)	... 4.9	3.4
Combined Chlorine	... 1.40	0.98
Equivalent to Na. Cl.	... 2.31	1.62
Nitric Nitrogen	... 0.03	0.02
Nitrous Nitrogen	... Nil.	Nil.
Ammoniacal Nitrogen	... Nil.	Nil.



Oxygen absorbed in 4 hours at 27° C.	0.028	0.028
Albumenoid Nitrogen	... .. 0.0028	0.0020
Lead or Copper	... .. Nil.	Nil.
Temporary Hardness		
(equivalent to Ca. Co. <sup>3</sup> )	1.0	0.7
Permanent Hardness	... .. 1.2	0.8
Total Hardness	... .. 2.2	1.5

This is a soft water, and judged by chemical analysis of satisfactory organic purity. The sample is entirely free from lead.

C. H. WELLS,

Clinical Research Association, May 17th, 1911. Secretary.

*Torpoint U.D.* Dr. Vinter reports: "That part of the town which has grown up the hill to the level of the filter beds is only supplied at an entirely inadequate pressure, and consequently the consumption in those parts is low. Were the pressure good at these higher levels, your supply during the summer would have been found deficient."

The loans on the Water Works, which are owned by the Council, expire in 1916, and I am glad to know that the Council are seeking for another supply of abundant quantity and pressure and undoubted purity to take its place. The distance must be considerable, and the cost great, but should any important building developments take place in the neighbourhood it could easily be managed; in any case the difficulty has now to be met."

The report of the Clinical Research Society on September 5th was:—

	Parts per 100 000.	Grains per Gallon.
Total Solids (dried at 120°C.)	... 32.4	22.7
Combined Chlorine	... .. 6.20	4.34
Equivalent to Na. Cl.	... .. 10.23	7.16
Nitric Nitrogen	... .. 0.03	0.02
Nitrous Nitrogen	... .. Nil	Nil.
Ammoniacal Nitrogen	... .. 0.0003	0.0002
Albumenoid Nitrogen	... .. 0.0122	0.0085

Oxygen absorbed in 4 hours at 27°C.	0.066	0.047
Lead or copper ... ..	Nil.	Nil.
Temporary Hardness		
(equivalent to Ca. Co <sub>3</sub> )	17.2	12.0
Permanent Hardness ... ..	1.8	1.3
Total Hardness ... ..	19.0	13.3

“ This sample contains more unoxidised organic matter than can be regarded as altogether satisfactory in water which is used as a public supply.”

“ It is of moderate hardness.”

In view of this report, the Council should take every care that the present supply is freed from any risk of pollution.

*Newquay U.D.* Town Supply, Mount Wise source.

13th September, 1911.

Chlorine ... ..	5.5 grains per gallon.	
Nitrogen (in nitrates) ...	trace.	
Ammonia, free ... ..	.0009	„
Ammonia, albumenoid ...	.0011	„
Oxygen absorbed from		
in 15 minutes	.005	„
Permanganate at 80F.		
in 4 hours	.013	„
Total Solid Matter in Solution	39.4	„
Solid Matter		
reduced by ignition to	28.4	„
Poisonous Matters		
(Lead and Copper)	absent.	
Hardness, total ... ..	10 degrees.	
Hardness, permanent ...	7½ degrees.	
Appearance in 2-ft. tube	Good colour and clear	

“ This is a water of highest degree of purity.”

Town Supply, Trewollack source.

Chlorine ... ..	3.6 grains per gallon.	
Nitrogen (in nitrates) ...	trace.	
Ammonia, free ... ..	.0016	„
Ammonia Albumenoid ...	.0016	„



Oxygen absorbed from			
in 15 minutes	.007	„	„
Permanganate at 80F.			
in 4 hours	.013	„	„
Total Solid Matter in Solution	28.3	„	„
Solid Matter			
reduced by ignition to	24.0	„	„
Poisonous Metals			
(Lead and Copper)	absent.		
Hardness	... ..	9 degrees	
Appearance in 2-ft. tube		Good colour and clear	

“ This is an excellent water for drinking purposes.”

The water supply at portions of the following districts is unsatisfactory, mainly as to quantity available, but in certain instances as to quality, full details of which will be found in Part IV., under the general report on the districts concerned :—

Boscastle R.D. (Trevena, Treknow), Camelford, Liskeard R.D. (St. Ive, St. Dominic, and Cheesewring), St. Germans R.D. (Kingsand), Bodmin R.D. (Port Isaac and Rock Village), St. Columb, Redruth R.D. (St. Day, Parkbottom, and Carnkie), East Kerrier R.D. (Carlidnack, Mawnan, Treluswell, Smallcroft, and Longdowns), Helston R.D. (Keneggy), West Penwith (Carbis Bay, Marazion, St. Hilary, and Perranuthnoe), Torpoint. Looe, Lostwithiel, Phillack, Madron, Ludgvan (Nancledra), and St. Just.

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## Part VIII.

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### CLEANSING AND SEWAGE DISPOSAL, and the POLLUTION OF STREAMS WITHIN THE COUNTY.

The above subjects are closely associated, and have a definite relationship, also, to the housing of the people. Combined, they indicate the vital points which have always to be seriously considered in our efforts to improve the general health and to banish disease. Cornwall is naturally a healthy county, continually swept as it is by the fresh sea-breezes, and sufficiently flushed with rain to assure a natural cleansing; unfortunately much of this advantage is lost by the pollution of both air and water from human and other sources. Ventilation is lacking in many dwellings, and failure to deal efficiently with the disposal of sewage is frequently responsible for the vitiation not only of the atmosphere but also of some of the streams, and even, at times, of the smaller water supplies.

Town scavenging and street cleansing should receive the greatest amount of attention in view of their importance for lowering the Zymotic Death-Rate, and diminishing the infant mortality. During periods of dry weather, the watering of the streets becomes an absolute necessity for cleansing the surfaces of roads, laying the dust, and flushing the gullies. In very large centres throughout the country, whole-time Cleansing Superintendents are appointed; these officials supervise the removal of night-soil and the cleansing and watering of the streets, and have charge of the large destructors for the disposal of refuse; much of the prevention of disease and preservation of health must certainly be due to them.



The subject has been dealt with separately for each district in Part IV., but it is necessary to draw special attention to the following :—

*From reports of Medical Officers of Health and Sanitary Inspectors, etc.*

*Stratton R.D.* The river was polluted by sewage from the Urban Sewerage Works, but this has been remedied after complaints from the owners of fields on both sides of the stream.

*Boscastle R.D.* The Scavenging is not done by the Local Authority. This should be taken in hand as soon as possible by the District Council.

*Camelford R.D.* The river Jump, a tributary of the Camel, was polluted by China Clay from Stannon, but the North Cornwall China Clay Company are reported to have remedied the evil.

*St. Germans R.D.* The village of St. Stephens is still without a Sewerage System, and drainage schemes are required at Kingsand and Cawsand.

*Bodmin R.D.* A glance at the full report on the water supply of Port Isaac is sufficient to assist towards conclusions as to what is expected to be found in the way of drainage ; many houses have no sanitary conveniences whatever ; the matter is urgent. The stream is polluted as a consequence, and serious nuisances exist. Many houses are unfit for habitation under such conditions. Rock water supply and drainage, also, should have the earnest attention of the Rural District Council. The rivers Fowey and Camel are polluted by industrial refuse.

*St Austell R.D.* The outfall of the Tywardreath sewer requires urgent attention ; much fouling of the watercourse exists in the neighbourhood of Par Station, and drainage at St. Blazey is unsatisfactory. The application of Shone's ejectors would appear indispensable in these low-lying places, where the necessary fall of 1—40 for 4-inch pipes, and 1—60 for 6-inch drains, and larger sections accordingly, cannot always be obtained.



*Truro R.D.* The question of drainage at Perranporth is acute, considering the importance of the place and its prospects of increase. There are reported to be about 90 water-closets in the dwelling houses, most of which drain into percolating cess-pits or "dummy wells." In many instances these pits are in sandy soil, and the liquid percolates freely through the sub-soil, hence the danger of polluting wells and of foul emanations in hot weather. About a dozen W.C.'s drain into a mine shaft, and the overflow proceeds through a large culvert near an hotel and a dwelling house; this culvert is open in places, and its outfall is to be found in an iron pipe on the beach below; thirty conveniences have been constructed by owners, the system being "pail" or "pit." On both sides of the road to the beach there are about a dozen wooden shops; most of these have no sanitary accommodation, with the result that refuse is thrown into the river. It is to be hoped that the District Council will not allow their Bye-Laws to be broken, as plans should be passed prior to the erection of such buildings. A public convenience should be provided near the beach for the use of the increasing number of visitors; also a scavenging cart for the collection of house refuse appears to be absolutely essential. There is no doubt that the new water scheme will be productive of much improvement in the drainage; a complete water-carriage system, with the abolition of pits, etc., will assure for this health resort that confidence from its many visitors which it deserves.

The drainage of other parts of the Rural District is discussed in brief in Part IV. of this book. The River Fal is reported to be polluted with China Clay.

*Redruth (Rural and Urban).* The following report to the County Council was made by the County Medical Officer:

To the Chairman and Members of the County Sanitary  
Committee.

Mr. Chairman and Gentlemen,

Having this day received the results of the two analyses of Sewage effluent required, I am now in a position to com-



plete my report, the preliminary notes of which you had before you at your recent meeting.

On September 6th, I met the Chairmen of the Sanitary Committees of the Redruth Rural and Urban Districts, together with representatives of both Councils, their Surveyors and Sanitary Inspectors, representatives of the Ratepayers, and the Medical Officer of the Rural District. I carefully examined the settling tank and treatment ground of the Urban Authority, with the assistance of the Chairman, Members, and Officials of the Sanitary Committee, who willingly placed at my disposal all available information. I conclude from this examination that the treatment of the Redruth sewage is totally inadequate by this plant, and that the adoption of a more efficient scheme is imperative. For such land treatment, the area is too restricted, the flow in parts too rapid, and intermittence and underdrainage are wanting, thus allowing the ground no opportunity of recovering itself. Moreover, the process of dealing with storm water would, at my visit, have been seriously hampered had the occasion arisen, due to silting up of deposit at the overflow edge. The effluent, the result of the combined effluents of the two main sections of fields (about five acres in all) is dark in colour and has an offensive odour, and is quite unfit to discharge into the Red River.

The M.O.H. has submitted two recent analyses of the same, taken in the cooler weather, as at my visit the test was hardly fair, on account of the excessive drought and dry weather flow.

In both of these examinations, the County Analyst reports that the effluent should not be allowed to enter a river. In the course of the stream, I found sanitary conveniences actually spanning it, the excreta dropping directly into the water, a nuisance which ought to be dealt with. With regard to the recent outbreak of Diphtheria in the Redruth Rural District, I gave as my opinion, that it was impossible to actually trace the disease to the river, as to



its origin, yet effluvia might so lower the general health of the inhabitants subjected to them, as to render more facile the attack of the Diphtheria germ.

On following the river, in the Redruth Rural District, towards Portreath, I had the advantage of the assistance of the Chairman of the Sanitary Committee of the Redruth District Council, together with other Members, and the Surveyor. These gentlemen drew my attention to the Sanitary condition of their District in detail, bringing forward any feature, which they themselves deemed undesirable, and showing willingness to discuss any remedy suggested. There are many points for consideration, not the least of which is the pollution of the same river from its left bank by the drainage outfall from a row of houses at Portreath, in some of which, according to the Sanitary Inspector, water-closets are connected; this is near the entrance of the river to the sea, yet with shallow water and a broad expanse of sand, it is obvious that this condition of affairs is most undesirable, and ought to be immediately dealt with.

From these houses, as elsewhere, there is apparently no regular collection of ashpit refuse by the Local Authority, and some of the occupants tilt domestic rubbish over the river bank. I advised the employment of a cart for the purpose of regularly collecting this material, and the Chairman assured me that the matter had his attention. A large accumulation having I believe a less harmful composition, has been formed to bank up the beach, and I suggest that as it is difficult to be assured at all times of its harmless nature (cf., old tin cans, etc., about its base), it would be wise to discontinue it, having regard to the use of the beach by visitors and children.

A most dangerous and insanitary condition is to be found in the inner dock, into which house drainage is opening direct, percolating between the stones on to a paved slope on which the children play. The odour here is offensive, and the decomposable matter at the bottom of this still dock must cause a nuisance and a danger to health, not only to



the inhabitants of Portreath, but to the sailors who have to live on board vessels exposed to it. There are two waste water drains also discharging into the middle dock.

It is obvious that Portreath is in need of a proper Cleansing and Drainage System.

The Redruth Sewage Treatment certainly requires early attention, and I would suggest :—

- (1) The advisability of reconsidering a Scheme for conveyance to the sea, or
- (2) The installation of a sound System with tanks and filter beds.

The former would appear preferable, especially in view of the possibility of participation by the Rural Authorities for such of their District as the System must traverse, when, at the same time, the question of the diversion of the stream at Portreath could be considered, with a view to assist in the requisite seaward currents, such an arrangement tending to obviate the necessity for that strict supervision which is so difficult to ensure.

I am,

Your obedient Servant,

(Signed) ROBERT BURNET,  
County Medical Officer.

Truro, November 7th, 1912.

*East Kerrier R.D.* The following report to the County Council was made by the County Medical Officer, with regard to certain nuisances at Flushing :—

July 12th, 1911.

#### Sanitary Condition of Flushing.

At the request of the East Kerrier Rural District Council I visited Flushing with the local authority's Medical Officer, Dr. Blamey, and Mr. Chubb, Sanitary Inspector, on June 16th, and also on the following day.

I examined the water supply tank and reservoir, and also the cottage property. The sanitary conveniences of many of

the latter were at fault, being foul and wet privy middens, such as to be a nuisance and dangerous to health. I was told by the Inspector that the tide sometimes came up and flooded these middens; this was confirmed by the occupants of the cottages in question. I recommended a proper drainage system with septic tank and filters, but in view of the fact that these nuisances associated with the cottages were urgent notices should be served for the abatement of the same, suggesting that the pail system, with strong pails and dry ashbins, should replace the insanitary privy middens, keeping in view the conversion to the water-carriage system where possible in such cottages whose value would justify it, when a proper drainage system is established. I have written the East Kerrier Rural District Council to this effect, and I understand from the local paper reporting their Council meeting that I am to be invited to attend one of their meetings and to interview a special committee appointed for the purpose. I have also indicated the danger that exists with regard to the possibility of infecting oyster beds on account of the present state of the drainage, which has sewage outfalls in the vicinity.

*Helston R.D.* See report and remarks' in Part IV., particularly with regard to the Lizard.

*West Penwith R.D.* See Carbis Bay drainage and water supply under this district, in Part IV.

*Launceston Borough.* Both the filter beds and the land treatment system at the sewage works require complete overhauling; in the former, amongst other things, the sprinkling (distributing) apparatus is inefficient, and in the latter there is too much stagnation, and the ground is not made use of to the best advantage, both contributing to the production of an unsatisfactory effluent.

*Wadebridge U.D.* Pollution of river Camel: see under this district in Part IV.

*Truro City.* See report under this district in Part IV. Judging from the report of the Medical Officer of Health,



the insanitary state, with gross pollution of the river (tidal) ought soon to disappear.

*Camborne U.D.* Contemplated sea outfall scheme. See also Part IV.

*Falmouth Borough.* The following scheme for the drainage of the Gyllyngvase area has been adopted, and the work put well in hand :—

*(From the Report of the M.O.H.).*

“ Briefly the system is as close an imitation of nature as possible, and is another example of how science has again harnessed a natural agent for the benefit of mankind. Following on Pasteur’s researches into the processes of fermentation and putrefaction, it has been proved that micro-organisms or bacteria play an important part in the disintegration or splitting up of organic matter, both vegetable and animal, and this fact is utilised on a scientific basis for the reduction of refuse and sewage into harmless by-products. The success attending the dry earth system of closets and of sewage farming had before this been illustrations of the bacteriological treatment of sewage, although the process had not hitherto been fully understood. It was previously assumed that the oxidation of decaying organic matter on the earth’s surface was a chemical process, but now it has been proved that the upper layers of the soil teems with micro-organisms. These organisms feed on the decaying vegetable and organic matter, and split this up into simple oxidisable and comparatively harmless substances. In devising a scheme for the purification of sewage on modern methods, nature’s process is imitated as far as possible. The septic tank is closed, and the sewage, which is not screened except of its grit, passes very slowly through the chambers of the tank. There is a very gradual deposition to the bottom of a large proportion of the solid organic matter, while small masses are carried to the surface by the gases of decomposition, and form a leathery scum. In these upper and lower layers, which teem with micro-organisms, constant disintegration and liquefaction keeps pace with the constant addition of the undissolved

matter. Gases are of necessity evolved, but, owing to rapid oxidation, no offensive smells can be detected near. In a properly constructed tank very little residue is left, so complete has been the "process of combustion" by the micro-organisms, if one may use this term in reference to their action. No definite time can be assigned for the emptying of the residue, as this depends on the character of the sewage. Some tanks work for a year without requiring to be sludged, others go as long as ten. The effluent thus purified in the septic tank passes into another tank, where it is held up till such time as is suitable for its discharge on the ebb tide. The outfall pipe is carried out to sea, well below low-water mark, and the discharge of the purified effluent is controlled by an ingenious automatic valve, worked by a bucket which fills and empties on the rise and fall of the tide. It is set so as to allow the fluid to pass through on the ebb tide only. This obviates any chance of it being washed back on the beach. The advantages claimed for this method of sewage disposal are : (1) the small amount of sludge produced ; (2) an effluent of great purity ; (3) reliability of working, and, therefore, very inexpensive ; (4) freedom from nuisance.

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## Part IX.

### ADMINISTRATION OF THE MIDWIVES' ACT, 1902.

At the commencement of the year the scheme for working this Act in the Administrative County was hardly satisfactory, on account of its many and obvious drawbacks. Each District Medical Officer of Health had the supervision of the midwives in his district, and inspected and reported to the County Midwives' Committee for a fixed fee per case ; There was no County Medical Officer of Health to receive these reports, and to direct as to the fitness or otherwise of disciplinary cases to be dealt with, either by the Central Midwives' Board or by the County Council as the Local Supervising Authority. The Committee were, however, fortunate enough to acquire the services as members of three medical men, who could advise them as to the midwifery questions which constantly arise, and on such questions of administration as they were familiar with as District Medical Officers of Health.

These three medical members themselves were as agreed, as were the remainder of the Midwives' Committee, as to the advisability of adopting the County Medical Officer's scheme for carrying out the provisions of the Midwives' Act. The services of the Medical Officers of Health were accordingly discontinued, and two inspectresses were appointed from October 1st, under the Midwives' Act, advantage being taken of the offer of the County Nursing Association to give the services of their Superintendent, Miss C. A. Tait McKay, Cert. R.S.I., C.M.B., etc., and her assistant, Miss Ethel Lyon, Cert. C.M.B., etc., in return for an annual grant of £100 from the County Council. The scheme works admirably, with the result that the County Midwives' Roll has been much enlarged, and a system of discipline of all the classes of midwives assured, which was

impossible under part time local medical officers, who naturally had not the free hand so necessary to officials under the Act.

The new regime commenced in October of the year under review, and all midwives, including bona-fide midwives, have regularly despatched to them, by the County Council, all the forms, including the book of rules, etc., as issued by the Central Midwives' Board.

### Midwives' Act, 1902.

#### Report of Inspector of Midwives, to 31st December, 1911.

	Trained.	Bona-Fide.	Total.
Satisfactory .....	84	—	84
Fairly satisfactory .....	6	7	13
Not at home .....	—	9	9
Left county .....	3	2	5
Unsatisfactory .....	—	4	4
Number of Inspections .....	93	22	115
Number of Midwives inspected	90	13	103
Records received:—			
(a) Medical Help .....	93	3	96
(b) Still Births .....	16	—	16
(c) Last Offices .....	22	—	22

Many midwives are still unfit for practice, but are unable to be removed from the roll for several reasons, not the least of which, in some instances, is the fact that without such persons, women would have to be left with no nursing whatever: many villages have no medical men living within reasonable distance.

Some of the bona-fide midwives, although legally entitled to practise, are quite incapable of reading a thermometer, or carrying out even the most elementary duties of a nurse. Fortunately this type of midwife will never be replaced, and the prospects of an excellent midwifery service in the future are assured.



The Central Midwives' Board issued new rules which came into force July 1st, 1911. One rule is that a midwife must take and record a patient's temperature and pulse every morning for ten days. Only a few of the trained midwives have done this so far.

There were 124 midwives who had notified the Local Supervising Authority during the year, but at the time of going to press the roll, under the new system had increased to 161. It is obvious that formerly many midwives were practising without having notified their intention of so doing.

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## Part X.

## SALE OF FOOD AND DRUGS ACT, 1875 TO 1907.

Abstract of Work in the Administrative County of Cornwall  
for the Year 1911.

Name of Article.	Number of Samples taken.	Genn- ine.	Adul- terated.	Remarks.
Milk ... ..	81	76	5	Several of poor quality.
Skimmed Milk ... ..	6	6	...	
Scald Milk ... ..	2	1	1	12% of added water.
Butter ... ..	22	21	1	18 5% water.
Cream ... ..	4	4	...	
Margarine ... ..	10	10	...	
Cheese ... ..	8	8	...	
Lard ... ..	11	11	...	
Lard and Beef Suet ... ..	1	...	1	20% Cotton Seed Oil.
Tea ... ..	9	9	...	
Sugar ... ..	8	7	1	Contained 1% Carbonate of Soda.
Sweets ... ..	7	7	...	
Pepper ... ..	9	9	...	
Flour ... ..	1	1	...	
Bun Flour ... ..	1	1	...	
Yeast ... ..	5	5	...	
Rice ... ..	7	7	...	
Peas ... ..	1	1	...	
Bread ... ..	1	1	...	
Jam ... ..	4	4	...	
Baking Powder ... ..	8	8	...	
Marmalade ... ..	2	2	...	
Milk Food ... ..	1	1	...	
Tinned Beef ... ..	1	1	...	
Beef Essence ... ..	1	1	...	
Fish Paste ... ..	1	1	...	
Relish ... ..	1	1	...	
Vinegar ... ..	17	17	...	
Whisky ... ..	26	26	...	
Brandy ... ..	7	5	2	30 & 36 degrees under proof.
British Brandy ... ..	5	2	1	40 degrees under proof.
Gin .. ..	20	18	2	2 samples 40 and 37 degrees under proof.
Rum ... ..	4	3	1	30 degrees under proof.
Saffron ... ..	1	1	...	
Gravy Compound ... ..	1	1	...	
Jelly ... ..	1	1	...	
Pickles ... ..	1	1	...	
Soup Powder ... ..	1	1	...	
Ice Cream Powder ... ..	1	1	...	
Beer ... ..	1	1	...	
Egg Powder ... ..	1	1	...	
Potted Chicken and Ham ... ..	1	1	...	
Total ... ..	299	284	15	



## Part XI.

### THE MILK SUPPLY.

A report from each district responsible for the administration of the Dairies, Cowsheds, and Milk Shops' Orders, 1885-1899, is given in Part IV.

From the reports one must conclude that, speaking generally, the cowsheds of Cornwall are not up to the standard attained in many counties; it must be remembered, however, that the climate of Cornwall is so mild that the animals do not require so much housing as in other places. The question of air-space in cowsheds does not apply to cowsheds whose cows are habitually grazed during the major part of the year, and when not being grazed are habitually turned out during a portion of each day. See Circular Letter of Local Government Board, March 11th, 1899. Of much more importance, then, is the matter of cleanliness as compared with the question of air-space; there is much to be desired in this respect, particularly with respect to farm premises, disposal of manure, drainage, etc. These items are of importance if we are to make the Milk Supply safe from dirt and contamination; fortunately on account of the out-door life of Cornish cattle, the county is comparatively free from Bovine Tuberculosis. Cases of this disease do occur, and the risk of tuberculous meat becoming exposed for sale is considerable, as there is no routine meat inspection carried out; to bring in the Medical Officer of Health only when meat already exposed for sale is inspected is entirely insufficient. For this and other important reasons, the County Council would be well advised to appoint a County Sanitary Inspector with a meat inspector's certificate. Such an officer would be invaluable, not only for securing the proper carrying out of all that is concerned in the Orders, but would be able to give his attention to general sanitary matters.

From the reports of the Medical Officers of Health, it is obvious that many of the Local Authorities are not comply-



ing with the Dairies, Cowsheds, and Milk-Shops' Orders ; in certain districts dairies, etc., are reported as not registered.

The Dairies, Cowsheds, and Milk-Shops Order of 1885 was made by the Privy Council ; the D.C. and M. Amendment Order of 1886 substituted the Local Government Board for the Privy Council ; the D.C. and M. Order of 1899 amended the two previous Orders by including Tuberculosis in the infective diseases, on the occurrence of which milk should not be sold under S. 15.

The three Orders throw upon every Sanitary Authority the supervision of the milk trade in their district, and the carrying out of Regulations prescribed by the Orders ; any Sanitary Authority may assume further powers by making Regulations under S. 13, having the force of bye-laws.

#### **Summary of the Chief Provisions of the Orders :**

Section 6. (1) It shall not be lawful for any person to carry on . . . the trade of cowkeeper, dairyman, or purveyor of milk unless he is registered as below. (2) Every S.A. shall keep a register of such persons and shall from time to time revise and correct the register. (3) The S.A. shall register every such person, but registration shall not be deemed to authorise such person to occupy as a dairy or cowshed any particular building or preclude proceedings. (4) The S.A. shall from time to time give public notice of registration being required, and of the mode of registration. (5) A person who carries on the trade of cowkeeper or dairyman for the purpose only of making and selling butter or cheese, or both, and who is not also a purveyor of milk, need not be registered. (6) A person who sells milk of his own cows in small quantities to his workmen or neighbours for their accommodation, need not, by reason thereof, be registered.

Section 7. (1) It shall not be lawful to begin to occupy as a dairy or cowshed any building not so occupied at the commencement of this Order until provision is made, to the reasonable satisfaction of the S.A., for the lighting and ven-



tilation, including air-space, and the cleansing, drainage, and water supply ; or (2) without first giving one month's notice in writing to the S.A.

Section 8. It shall not be lawful to occupy as a dairy or cowshed any building—whether so occupied at the commencement of this Order or not—if . . . the lighting and ventilation, including air-space, and the cleansing, drainage, and water supply thereof, are not such as are necessary or proper (a) for the health and good condition of the cattle therein ; (b) for the cleanliness of milk-vessels used therein for containing milk for sale ; and (c) for the protection of the milk therein against infection or contamination.

Section 9. It shall not be lawful for any . . . cowkeeper, or dairyman, or purveyor of milk, or occupier of a milkshop (a) to allow any person suffering from a dangerous infectious disorder, or having recently been in contact with a person so suffering, to milk cows or to handle vessels used for containing milk for sale, or in any way to take part or assist in the conduct of the trade . . . so far as regards the production, distribution, or storage of milk ; or (b) if himself so suffering, or having recently been in contact as aforesaid, to milk cows or handle vessels containing milk for sale, or in any way to take part in the conduct of his trade as far as regards the production distribution, or storage of milk ; until, in each case, all danger therefrom of the communication of infection to the milk or its contamination has ceased.

Section 10. It shall not be lawful for any . . . cowkeeper, dairyman, or purveyor of milk, or . . . occupier of a milk-store or milkshop, after the receipt of notice of not less than one month from the Local Authority calling attention to the provisions of this Article, to permit any water-closet, earth-closet, privy, cesspool, or urinal, to be within, communicate directly with, or ventilate into, any dairy or any room used as a milk-store or milkshop.

Section 11. It shall not be lawful for any . . . cowkeeper, or dairyman, or purveyor of milk, or occupier



of a milk-store or milkshop, to use a milk-store or milkshop in his occupation, or permit the same to be used, as a sleeping apartment, or for any purpose incompatible with the proper preservation of the cleanliness of the milk-store or milkshop, and of the milk vessels and milk therein, or in any manner likely to cause contamination of the milk therein.

Section 12. It shall not be lawful for any . . . . cowkeeper, or dairyman, or purveyor of milk to keep any swine in any . . . building used by him for keeping cows, or in any milk-store or other place used by him for keeping milk for sale.

Section 13. Any S.A. may make regulations (a) for the inspection of cattle in dairies ; (b) for prescribing and regulating the lighting, ventilation, cleansing, drainage, and water supply of dairies and cowsheds . . . . (c) for securing the cleanliness of milk-stores milkshops, and milk vessels used for containing milk for sale ; and (d) for prescribing precautions to be taken by purveyors of milk, and persons selling milk by retail, against infection or contamination.

Section 14. The following provisions shall apply to regulations made by any S.A. under this Order : (1) Every regulation shall be published by advertisement in a newspaper circulating in the district ; (2) The S.A. shall send to the L.G.B. a copy of every regulation at least a month before the date of operation. (3) The L.G.B. may at any time revoke any regulation if satisfied on inquiry that it is too restrictive or otherwise objectionable.

Section 15. The milk of a cow suffering from cattle-plague, pleuro-pneumonia, or foot-and-mouth disease (a) shall not be mixed with other milk ; (b) shall not be sold or used for human food ; and (c) shall not be sold or used for food of animals unless it has been boiled. Tuberculosis is now included in this section under the D.C. and M.O. of 1899.



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TABLE 1—VITAL STATISTICS FOR THE YEAR 1911.  
RURAL DISTRICTS.

DISTRICT.	Population, 1911.			BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.			TRANSFERABLE DEATHS †			NET DEATHS BELONGING TO THE DISTRICT.			DEATHS FROM ZEPHYRUS DISEASES.		
	Number.	Net.		Number.	Rate.	Number.	Rate.	Number.	Rate.	Number.	Rate.	At all ages.			Number.	Rate.	Number.	Rate.
		Unrecorded number.	Number.									Rate.	Under 1 yr. of age.	Rate per 1,000.				
1 Stratton	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
2 Launceston	4,924	102	102	20.71	45	9.13	..	5	6	58.82	50	10.13	2	0.40	..	..	..	..
3 Calstock	7,844	146	147	19.48	77	10.20	1	2	8	54.42	78	10.33	2	0.25	..	..	..	..
4 Boscastle	4,881	105	108	22.12	77	15.77	1	8	17	157.40	84	17.20	7	1.45	..	..	..	..
5 Cameford	2,292	47	47	20.50	28	12.21	1	..	5	106.38	27	11.77	1	0.43	..	..	..	..
6 Liskeard	5,093	119	119	23.36	68	13.35	..	4	14	117.64	72	14.13	5	0.98	..	..	..	..
7 Liskeard	15,349	330	337	21.95	195	12.70	..	23	24	86.05	218	14.30	6	0.32	..	..	..	..
8 St. Germans	12,274	227	229	18.65	148	12.05	3	24	24	104.80	169	13.76	6	0.48	..	..	..	..
9 Bodmin	10,357	211	211	20.66	131	12.64	4	12	15	70.08	139	13.42	10	0.96	..	..	..	..
10 St. Columb	11,262	240	240	21.31	172	15.27	..	9	27	112.50	181	16.07	12	1.15	..	..	..	..
11 Truro	32,707	729	744	22.71	443	13.54	2	38	87	116.93	479	14.64	51	1.55	..	..	..	..
12 Redruth	20,515	379	379	18.47	308	15.01	4	14	30	79.13	318	15.50	10	0.48	..	..	..	..
13 Redruth	18,004	397	391	21.71	362	20.11	7	20	77	196.93	365	20.27	57	3.16	..	..	..	..
14 East Kerrier	8,009	127	126	15.73	108	13.48	5	10	17	134.92	113	14.10	10	1.24	..	..	..	..
15 East Kerrier	17,192	327	329	19.13	236	13.72	2	14	29	88.14	248	14.42	23	1.33	..	..	..	..
16 West Penwith	11,165	235	235	21.04	159	14.24	1	13	28	119.14	171	15.31	11	0.98	..	..	..	..
17 Selly Isles	2,097	37	37	17.64	19	9.06	..	2	2	64.25	21	10.01	1	0.47	..	..	..	..
Totals	183,665	3,738	3,781	20.38	2,576	14.02	41	198	415	109.78	2,733	14.88	214	1.16	..	..	..	..

URBAN DISTRICTS.

DISTRICT.	Population, 1911.			BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.			TRANSFERABLE DEATHS †			NET DEATHS BELONGING TO THE DISTRICT.			DEATHS FROM ZEPHYRUS DISEASES.		
	Number.	Net.		Number.	Rate.	Number.	Rate.	Number.	Rate.	Number.	Rate.	At all ages.			Number.	Rate.	Number.	Rate.
		Unrecorded number.	Number.									Rate.	Under 1 yr. of age.	Rate per 1,000.				
17 Callington	1,713	44	44	25.68	23	13.42	..	7	3	68.40	23	13.42	2	1.16	..	..	..	..
18 Stratton & Bude	2,979	51	51	17.11	43	15.10	..	1	4	78.43	39	13.08	1	0.33	..	..	..	..
19 Launceston	4,117	48	47	11.41	66	16.03	6	4	2	42.55	64	15.54	1	0.24	..	..	..	..
20 Liskeard	4,371	84	77	17.61	82	18.76	17	Nil	8	103.89	65	14.87	3	0.68	..	..	..	..
21 Torpoint	4,283	114	113	26.38	67	15.64	10	1	9	79.64	58	13.54	6	1.40	..	..	..	..
22 Looe	2,718	48	48	17.66	30	11.03	..	2	5	104.16	32	11.77	1	0.36	..	..	..	..
23 Saltash	4,130	75	75	18.15	46	11.13	..	4	8	105.60	50	12.10	2	0.48	..	..	..	..
24 Bodmin (including the parishes of St. Andrew, St. Martin, and St. Mary's) (4,124)	5,734	80	80	18.29	171	28.59	111	..	8	100.00	60	13.72	6	1.37	..	..	..	..
25 Lostwithiel	1,373	17	17	12.38	16	11.65	..	2	1	58.82	18	13.11	Nil	..	..	..	..	..
26 Wadebridge	2,339	38	38	16.24	31	13.25	..	3	4	105.26	34	14.53	5	1.11	..	..	..	..
27 Truro City	11,325	221	221	19.51	199	17.57	23	5	20	30.49	181	15.98	15	1.32	..	..	..	..
28 Penryn	3,092	79	80	25.87	57	18.43	..	5	19	237.50	62	20.05	14	4.52	..	..	..	..
29 Falmouth	13,136	234	234	17.81	217	16.51	..	25	11	175.21	203	15.45	27	2.05	..	..	..	..
30 Helston	2,938	62	59	20.08	65	22.12	9	4	11	186.44	60	20.42	8	2.72	..	..	..	..
31 St. Ives	7,179	191	191	26.60	125	17.41	..	4	36	188.48	129	17.96	30	4.17	..	..	..	..
32 Penzance	13,488	223	227	16.82	214	15.94	15	25	42	185.02	224	16.60	30	2.22	..	..	..	..
33 Padstow	2,480	26	26	10.48	32	12.90	3	3	2	76.92	32	12.90	2	0.80	..	..	..	..
34 Newquay	4,415	75	75	16.76	59	13.36	9	2	5	66.66	52	11.82	3	0.67	..	..	..	..
35 St. Austell	10,815	245	247	22.84	235	21.72	22	15	60	242.91	228	21.09	42	3.88	..	..	..	..
36 Redruth	15,829	396	400	25.07	252	15.85	1	16	70	175.00	267	16.86	41	2.59	..	..	..	..
37 Camborne	9,611	73	73	20.21	55	16.23	..	3	12	164.38	57	15.78	5	1.38	..	..	..	..
38 Hayle	1,028	19	19	18.48	21	20.42	..	2	3	157.89	23	22.37	1	0.97	..	..	..	..
39 Madron	3,703	76	66	17.82	93	25.14	35	2	7	106.06	60	16.20	8	2.14	..	..	..	..
40 Paul	6,014	135	135	22.44	89	14.79	..	5	22	162.96	94	15.63	14	2.32	..	..	..	..
41 Paul	2,213	58	58	26.20	33	14.91	..	5	6	103.44	38	18.07	4	1.80	..	..	..	..
42 Ludgvan	5,753	154	154	26.76	108	18.77	..	6	30	194.80	114	19.81	17	2.97	..	..	..	..
43 St. Just	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	144,141	2,929	2,906	20.16	2,500	17.34	313	131	452	155.88	2,318	16.08	294	2.03	..	..	..	..

TOTALS FOR THE COUNTY.

	Number.	Rate.	Number.	Rate.	Number.	Rate.	Number.	Rate.	Number.	Rate.				
Rural	183,665	3,738	3,781	20.58	2,576	14.02	41	198	415	109.78	2,733	14.88	214	1.16
Urban	144,141	2,929	2,906	20.16	2,500	17.34	313	131	452	155.88	2,318	16.08	294	2.03
Whole County	327,806	6,687	6,687	20.39	5,076	15.40	354	329	867	129.65	5,051	15.40	508	1.54

\* The deaths included in Column 5 of this table are the whole of those registered during the year as having actually occurred within the district. The deaths included in Column 11 are the whole of those registered during the year as having actually occurred within the district. The deaths included in Column 9 are similarly corrected by subtraction of the number in Column 7, and the addition in column 8. Deaths one included in the number given in Column 8.  
† Transferable deaths are deaths of persons who, having a fixed or usual residence in England or Wales, die in a district other than that in which they resided.













































TABLE II.—Infectious Diseases notified, and number of cases removed to Hospital during the year 1911.

URBAN DISTRICTS.

Districts	NOTIFIABLE DISEASE	Small-pox	Diphtheria, including Membranous Croup	Erysipelas	Scarlet Fever	Enteric Fever	Relapsing Fever	Continued Fever	Puerperal Fever	Poliomyelitis	Phthisis			Total	
											1908 Regulations	1911	Others		
27.—TRURO CITY	Under 1	..	..	..	3	..	..	..	..	..	..	..	..	..	3
	1 to 5	..	4	..	13	..	..	..	..	..	..	..	..	..	17
	5 to 15	..	11	1	45	..	..	..	..	..	..	..	..	..	57
	15 to 25	..	..	..	3	..	..	..	..	..	..	2	..	..	5
	25 to 45	..	..	..	2	..	..	..	2	..	4	..	..	..	8
	45 to 65	..	1	..	..	..	..	..	..	..	1	..	..	..	2
	65 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	At all Ages	..	*18	1	*74	..	..	..	2	..	7	..	..	..	102
Cases Removed to Hospital	..	13	..	50	..	..	..	..	..	..	..	..	..	63	
28.—PENRYN URBAN	Under 1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1 to 5	..	1	..	1	..	..	..	..	..	..	..	..	..	2
	5 to 15	..	2	..	7	..	..	..	..	..	..	..	..	..	9
	15 to 25	..	4	..	..	..	..	..	..	..	..	..	..	..	4
	25 to 45	..	2	1	2	..	..	..	1	..	..	..	..	..	6
	45 to 65	..	i	..	..	..	..	..	..	..	..	..	..	..	1
	65 & upwards	..	..	2	..	..	..	..	..	..	..	..	..	..	2
At all Ages	..	10	3	10	..	..	..	1	..	..	..	..	..	24	
Cases Removed to Hospital	..	..	..	..	..	..	..	..	..	..	..	..	..	..	

\*Age not given in two and eight cases respectively.











TABLE II.—Infectious Diseases notified, and number of cases removed to Hospital, during the year 1911.

URBAN DISTRICTS.

Districts	NOTIFIABLE DISEASE	Small-pox	Diphtheria including Membranous Croup	Erysipelas	Scarlet Fever	Enteric Fever	Relapsing Fever	Continued Fever	Puerperal Fever	Poliomyelitis	Phthisis			Total
											1908 Regulations	1911	Others	
35.—ST. AUSTELL URBAN	Under 1													
	1 to 5	..	5	..	..	..	..	..	..	2	..	..	..	7
	5 to 15		6	..	..	..	..	..	..	1	..	..	..	7
	15 to 25													
	25 to 45	..	..	..	..	..	..	..	..	..	*2	..	..	2
	45 to 65													
	65 & upwards	..												
	At all Ages Cases Removed to Hospital	..	11	..	..	..	..	..	..	3	2	..	..	16
36.—REDRUTH URBAN	Under 1													
	1 to 5	..	20	..	3	..	..	..	..	1	..	..	..	24
	5 to 15	..	31	..	10	..	..	..	..	..	..	..	..	41
	15 to 25	..	..	..	..	..	..	..	1	..	..	..	..	1
	25 to 45	..	..	10	..	..	..	..	..	..	..	..	..	10
	45 to 65	..	..	3	..	..	..	..	..	..	..	..	..	3
	65 & upwards													
	At all Ages Cases Removed to Hospital	..	51	13	13	..	..	..	1	1	..	..	..	79
	..	6	..	..	..	..	..	..	..	..	..	..	6	

\* Approximately

















**TABLE III.—Causes of, and Ages at, Death during the Year 1911.**

Districts	Causes of Death.		All Causes																				Diseases ill-defined or unknown															
	At Ages—Years	Certified	Uncertified	Enteric Fever	Small-pox	Measles	Scarlet Fever	Whooping-cough	Diphtheria and Croup	Influenza	Erysipelas	Cerebro Spinal Fever	Phthisis (Pulmonary Tuberculosis)	Tuberculosis Meningitis	Other Tuberculous Diseases	Rheumatic Fever	Cancer, Malignant disease	Bronchitis	Broncho-Pneumonia	Pneumonia (all other forms)	Other Diseases of Respiratory organs	Diarrhoea and Enteritis		Appendicitis and Typhlitis	Alcoholism	Cirrhosis of Liver	Nephritis and Bright's Disease	Puerperal Fever	Other Accidents of Parturition	Congenital Debility, Malformation, Premature Birth	Violent Deaths excluding Suicides	Suicides	Other Defined Diseases					
1.—STRATTON RURAL.	Under 1 ...	6	0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	1			
	1 and under 2	2	0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...			
	2 and under 5	6	0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
	5 and under 15	3	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
	15 and under 25	4	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
25 and under 45	8	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
45 and under 65	7	14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
65 and upwards	14	14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
All Ages ...	50	50	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Deaths in Public Institutions	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
2.—LAUNGESTON RURAL.	Under 1 ...	8	0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	1 and under 2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	2 and under 5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	5 and under 15	3	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	15 and under 25	4	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
25 and under 45	7	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
45 and under 65	16	16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
65 and upwards	40	40	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
All Ages ...	78	78	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Deaths in Public Institutions	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...



















RURAL DISTRICTS.

TABLE III.—Causes of, and Ages at, Death during the Year 1911.

Districts	Causes of Death.	All Causes		At Ages—Years																																						
		Certified	Uncertified	Under 1	1 and under 2	2 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upwards	Phthisis (Pulmonary Tuberculosis)	Tuberculosis Meningitis	Other Tuberculous Diseases	Rheumatic Fever	Cancer, Malignant disease	Bronchitis	Broncho-Pneumonia	Pneumonia (all other forms)	Other Diseases of Respiratory organs	Diarrhoea and Enteritis	Appendicitis and Typhilitis	Alcoholism	Cirrhosis of Liver	Nephritis and Bright's Disease	Puerperal Fever	Other Accidents of Parturition	Congenital Debility, Malformation, Premature Birth	Violent Deaths excluding Suicides	Suicides	Other Defined Diseases	Diseases ill-defined or unknown										
11.—TRURO RURAL	All ages ... Deaths in Public Institutions	318	17	30	7	6	11	14	42	60	148	2	27	4	24	24	5	1	1	3	6	2	5	1	1	10	4	5	11	3	86	91										
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1									
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1								
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1								
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1							
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
		12.—REDRUTH RURAL	All ages ... Deaths in Public Institutions	365	34	77	15	12	11	21	44	75	110	41	6	5	27	26	5	6	9	41	35	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
1	1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
1	1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1



TABLE III.—Causes of, and Ages at, Death during the Year 1911.

RURAL DISTRICTS.

Districts	All Causes		Causes of Death.																																	
	Certified	Uncertified	Enteric Fever	Small-pox	Measles	Scarlet Fever	Whooping-cough	Diphtheria and Croup	Influenza	Erysipelas	Cerebro Spinal Fever	Phthisis (Pulmonary Tuberculosis)	Tuberculous Meningitis	Other Tuberculous Diseases	Rheumatic Fever	Cancer, Malignant disease	Bronchitis	Broncho-Pneumonia	Pneumonia (all other forms)	Other Diseases of Respiratory organs	Diarrhoea and Enteritis	Appendicitis and Typhitis	Alcoholism	Cirrhosis of Liver	Nephritis and Bright's Disease	Puerperal Fever	Other Accidents of Parturition	Congenital Debility, Malformation, Premature Birth	Violent Deaths excluding Suicides	Suicides	Other Defined Diseases	Diseases ill-defined or unknown				
13.—EAST KERRIER RURAL	At Ages—Years																																			
	Under 1 ...	17	2	...	...	...	2	...	...	...	...	...	...	...	...	...	3	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...			
	1 and under 2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...		
	2 and under 5	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...		
	5 and under 15	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
	15 and under 25	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	25 and under 45	14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	45 and under 65	17	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	65 and upwards	51	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	All Ages ...	113	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Deaths in Public Institutions	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
14.—HELSTON RURAL	All Ages—Years																																			
	Under 1 ...	29	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	1 and under 2	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	2 and under 5	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	5 and under 15	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	15 and under 25	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	25 and under 45	20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	45 and under 65	42	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	65 and upwards	127	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	All Ages ...	248	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Deaths in Public Institutions	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	



TABLE III.—Causes of, and Ages at, Death during the Year 1911.

Districts	Causes of Death.		All causes																																			
	Certified	Uncertified	Enteric Fever	Small-pox	Measles	Scarlet Fever	Whooping-cough	Diphtheria and Croup	Influenza	Erysipelas	Cerebro Spinal Fever	Phtisis (Pulmonary Tuberculosis)	Tuberculosis Meningitis	Other Tuberculous Diseases	Rheumatic Fever	Cancer, Malignant disease	Bronchitis	Broncho-Pneumonia	Pneumonia (all other forms)	Other Diseases of Respiratory organs	Diarrhea and Enteritis	Appendicitis and Typhlitis	Alcoholism	Cirrhosis of Liver	Nephritis and Bright's Disease	Puerperal Fever	Other Accidents of Parturition	Congenital Debility	Malformation, Premature Birth	Violent Deaths excluding Suicides	Suicides	Other Defined Diseases	Diseases ill-defined or unknown					
15.—WEST PENWITH RURAL	At Ages—Years	Under 1 ...	28	...	...	2	...	...	...	...	...	...	1	1	1	...	2	...	1	...	5	...	...	...	...	...	...	7	...	...	...	9	...	...				
		1 and under 2	4	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...				
		2 and under 5	1	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
		5 and under 15	5	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...			
		15 and under 25	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
		25 and under 45	13	...	...	1	...	...	...	...	...	3	...	...	...	...	6	...	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...			
		45 and under 65	37	...	...	...	...	...	...	...	...	3	...	...	...	...	5	...	...	2	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...			
		65 and upwards	79	...	...	...	...	...	...	...	...	3	...	...	...	...	5	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
		All ages ...	171	...	...	1	2	2	1	...	...	8	1	1	1	...	12	6	2	5	...	6	...	...	...	1	1	7	8	...	...	101	...	...				
		Deaths in Public Institutions	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
	16.—SCILLY ISLES RURAL	At Ages—Years	Under 1 ...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
			1 and under 2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
			2 and under 5	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			5 and under 15	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			15 and under 25	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		25 and under 45	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
		45 and under 65	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
		65 and upwards	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
		All ages ...	21	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
		Deaths in Public Institutions	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	















































TABLE III.—Causes of, and Ages at, Death during the Year 1911.

URBAN DISTRICTS.

Districts	Causes of Death.	All Causes		Scarlet Fever	Whooping-cough	Diphtheria and Croup	Influenza	Erysipelas	Cerebro Spinal Fever	Phthisis (Pulmonary Tuberculosis)	Tuberculous Meningitis	Other Tuberculous Diseases	Rheumatic Fever	Cancer, Malignant disease	Bronchitis	Broncho-Pneumonia	Pneumonia (all other forms)	Other Diseases of Respiratory organs	Diarrhoea and Enteritis	Appendicitis and Typhlitis	Alcoholism	Cirrhosis of Liver	Nephritis and Bright's Disease	Puerperal Fever	Other Accidents of Parturition	Congenital Debility, Malformation, Premature Birth	Violent Deaths, excluding Suicides	Suicides	Other Defined Diseases	Diseases ill-defined or unknown						
		Certified	Uncertified																																	
At Ages—Years	Under 1	3	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...				
	1 and under 2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
	2 and under 5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
	5 and under 15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
	15 and under 25	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
	25 and under 45	4	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
	45 and under 65	5	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
	65 and upwards	8	...	...	...	...	...	...	...	...	...	...	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
	All Ages	23	...	...	...	...	...	...	...	4	1	1	1	1	4	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Deaths in Public Institutions		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

39.—HAYLE URBAN.

Districts	Causes of Death.	All Causes		Scarlet Fever	Whooping-cough	Diphtheria and Croup	Influenza	Erysipelas	Cerebro Spinal Fever	Phthisis (Pulmonary Tuberculosis)	Tuberculous Meningitis	Other Tuberculous Diseases	Rheumatic Fever	Cancer, Malignant disease	Bronchitis	Broncho-Pneumonia	Pneumonia (all other forms)	Other Diseases of Respiratory organs	Diarrhoea and Enteritis	Appendicitis and Typhlitis	Alcoholism	Cirrhosis of Liver	Nephritis and Bright's Disease	Puerperal Fever	Other Accidents of Parturition	Congenital Debility, Malformation, Premature Birth	Violent Deaths, excluding Suicides	Suicides	Other Defined Diseases	Diseases ill-defined or unknown							
		Certified	Uncertified																																		
At Ages—Years	Under 1	7	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
	1 and under 2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	2 and under 5	3	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	5 and under 15	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	15 and under 25	3	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	25 and under 45	10	...	...	...	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	45 and under 65	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	65 and upwards	25	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	All Ages	60	...	...	1	3	...	...	...	6	...	2	...	3	5	1	3	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Deaths in Public Institutions		95	...	...	1	3	...	...	...	7	...	2	...	5	8	1	5	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

40.—MADRON URBAN.











URBAN DISTRICTS. TABLE III.—Causes of, and Ages at, Death during the Year 1911.

Districts	Causes of Death.	All Causes		URBAN DISTRICTS.																				Diseases ill-defined or unknown											
		Certified	Uncertified	Enteric Fever	Small-pox	Measles	Scarlet Fever	Whooping-cough	Diphtheria and Croup	Influenza	Erysipelas	Cerebro Spinal Fever	Phthisis (Pulmonary Tuberculosis)	Tuberculous Meningitis	Other Tuberculous Diseases	Rheumatic Fever	Cancer, Malignant disease	Bronchitis	Broncho-Pneumonia	Pneumonia (all other forms)	Other Diseases of Respiratory organs	Diarrhoea and Enteritis	Appendicitis and Typhlitis		Alcoholism	Cirrhosis of Liver	Nephritis and Bright's Disease	Puerperal Fever	Other Accidents of Parturition	Congenital Debility, Malformation, Premature Birth	Violent Deaths, excluding Suicides	Suicides	Other Defined Diseases		
URBAN DISTRICTS—TOTALS	Under 1 ...	452	1	...	...	32	...	5	1	...	...	2	5	1	...	...	...	...	25	21	12	4	150	...	...	...	1	1	...	...	141	5	...	41	10
	1 and under 2	64	3	...	...	8	...	1	1	...	...	...	...	...	...	...	...	...	10	10	6	...	11	...	...	...	...	...	...	4	...	...	5	2	
	2 and under 5	65	2	...	...	6	...	6	1	...	...	...	...	...	...	...	...	...	7	1	4	1	4	...	...	...	...	...	...	4	...	...	7	3	
	5 and under 15	84	1	...	...	1	...	10	8	...	...	6	10	4	...	...	...	...	...	...	2	3	2	1	4	...	...	...	...	...	...	...	14	17	
	15 and under 25	99	...	...	...	...	...	4	1	...	...	35	4	4	...	...	...	...	...	3	4	0	...	...	2	...	...	...	...	...	...	...	1	4	8
	25 and under 45	238	...	...	...	...	...	2	4	...	...	82	2	2	...	...	...	...	...	3	3	15	2	...	2	...	...	...	...	...	...	...	7	4	48
45 and under 65	411	...	...	...	...	...	...	4	4	...	59	4	4	...	...	...	...	...	1	2	15	1	2	...	2	...	...	...	...	...	13	2	154		
65 and upwards	905	...	...	...	...	...	...	...	1	...	8	...	...	...	...	...	...	...	1	1	25	3	10	...	2	...	...	...	...	...	8	4	522		
All Ages	2318	9	7	1	47	41	9	2	...	...	192	32	26	4	163	170	49	86	15	187	86	15	187	11	4	11	78	5	10	149	54	11	808		
Deaths in Public Institutions	360	...	...	...	1	9	1	...	...	...	31	1	4	...	18	22	6	12	8	4	6	8	4	10	2	1	12	1	2	6	17	2	181		
WHOLE COUNTY—TOTALS	Under 1 ...	866	1	...	...	58	...	...	...	...	4	12	12	...	...	...	...	...	57	33	22	7	231	...	...	...	...	...	...	1	1	277	15	...	107
	1 and under 2	164	7	...	...	31	...	...	...	...	1	5	3	...	...	...	...	...	16	23	12	...	20	...	...	...	...	...	...	...	5	2	26		
	2 and under 5	149	5	...	...	15	...	...	...	...	3	11	5	...	...	...	...	...	14	8	7	3	8	...	...	...	...	...	...	6	8	...	23		
	5 and under 15	192	4	...	...	3	...	...	...	...	13	22	13	...	...	...	...	...	...	1	2	6	2	2	13	...	...	...	...	...	...	18	...	38	
	15 and under 25	224	3	...	...	...	...	...	...	...	6	6	9	...	...	...	...	...	...	3	5	10	4	1	3	...	...	...	...	...	...	27	2	43	
	25 and under 45	504	2	...	...	...	...	...	...	...	3	19	19	...	...	...	...	...	...	8	...	28	7	1	4	2	4	22	6	20	...	29	6	110	
45 and under 65	883	...	...	...	...	...	...	...	...	...	111	4	9	1	148	60	6	26	10	4	26	10	4	2	2	6	51	...	...	...	28	7	365		
65 and upwards	2068	2	...	...	...	...	...	...	...	...	29	...	...	...	...	...	...	42	8	28	42	8	28	2	1	8	51	...	...	...	22	6	1184		
All Ages	5950	11	17	5	107	73	31	4	3	410	63	71	6	370	365	92	153	41	295	24	619	134	8	28	288	149	21	1896	361	...	...	...			
Deaths in Public Institutions	421	...	...	...	1	9	1	...	...	...	38	2	7	...	23	29	6	14	8	5	10	2	2	2	2	7	17	2	195	27	...	...	...		



TABLE IV.

Infantile Mortality during the Year 1911.

Nett Deaths from Stated Causes at various ages under One Year of Age.

District.	CAUSES OF DEATH.		All Causes.		Small-pox	Chicken-pox	Measles	Scarlet Fever	Diphtheria & Croup	Whooping Cough	Diarrhoea	Enteritis	Tuberculous Meningitis	Abdominal Tuberculosis	Other Tuberculous Disease	Congenital Malformations	Premature Birth	Atrophy, Debility, and Marasmus	Atelectasis	Injury at Birth	Erysipelas	Syphilis	Rickets	Meningitis (not Tuberculous)	Convulsions	Gastritis	Laryngitis	Bronchitis	Pneumonia (all forms)	Suffocation (overlying)	Other Causes
	Certified	Uncertified	Certified	Uncertified																											
Under 1 week	107	1	108	1	..	..	..	..	..	..	..	1	1	..	..	5	50	25	5	3	..	..	..	5	..	..	..	..	2	11	
1-2 weeks	26	..	26	..	..	..	..	..	..	1	..	..	..	..	..	2	10	5	1	..	..	..	..	4	..	..	..	..	..	3	
2-3 "	10	..	10	..	..	..	..	..	..	1	..	..	..	..	..	..	1	5	..	..	..	..	..	..	..	1	..	..	..	..	
3-4 "	9	..	9	..	..	..	..	..	..	1	..	..	..	..	..	1	2	3	..	..	..	..	..	1	..	..	..	..	..	1	
Total under 1 month	152	1	153	1	..	..	..	..	..	3	3	1	1	..	..	8	63	38	6	3	..	..	..	10	..	..	1	1	3	15	
1-3 months	85	..	85	..	..	..	..	..	..	4	16	3	3	..	2	..	3	16	1	..	..	..	..	7	6	..	7	8	1	8	
3-6 "	84	..	84	..	..	..	..	..	..	12	17	13	2	2	2	..	2	5	..	..	..	1	..	10	2	2	3	5	2	3	
6-9 "	49	..	49	..	..	..	..	..	..	6	9	3	..	3	1	2	..	2	..	..	..	1	..	7	1	..	6	4	1	2	
9-12 "	44	..	44	..	..	..	..	..	..	5	7	3	5	..	1	..	..	1	..	..	..	1	..	3	1	..	8	4	..	4	
Total deaths under 1 year	414	1	415	1	27	52	25	11	5	6	10	63	7	3	..	1	2	3	37	10	22	7	32	37	10	22	5	7	32		

Nett Births in the year { Legitimate, 3,681 } 3,781  
 { Illegitimate, 100 }

Nett Deaths in the year { Legitimate Infants } 415  
 { Illegitimate " } 1



TABLE IV.

Infantile Mortality during the Year 1911.

Nett Deaths from Stated Causes at various ages under One Year of Age.

District.	CAUSES OF DEATH		All Causes		Small-pox	Chicken-pox	Measles	Scarlet Fever	Diphtheria & Croup	Whooping Cough	Diarrhoea	Enteritis	Tuberculous Meningitis	Abdominal Tuberculosis	Other Tuberculous Disease	Congenital Malformations	Premature Birth	Atrophy, Debility, and Marasmus	Atelectasis	Injury at Birth	Erysipelas	Syphilis	Rickets	Meningitis (not Tuberculous)	Convulsions	Gastritis	Laryngitis	Bronchitis	Pneumonia (all forms)	Suffocation (overlying)	Other Causes
	Certified	Uncertified	Certified	Uncertified																											
Under 1 week	67	..	67	..	..	..	..	..	..	..	..	..	..	..	..	3	36	16	3	3	..	..	..	..	3	..	..	..	..	3	3
1-2 weeks	25	..	25	..	..	..	..	..	..	..	2	2	..	..	..	4	5	8	..	..	..	..	..	..	..	..	2	1	..	..	1
2-3 "	17	..	17	..	..	..	..	..	..	..	1	1	..	..	..	..	3	7	..	..	..	..	..	..	..	..	1	1	..	..	1
3-4 "	18	..	18	..	..	..	..	..	..	1	3	..	..	..	..	..	3	8	..	..	..	..	..	1	1	..	1	..	..	..	..
Total under 1 month	127	..	127	..	..	..	..	..	1	6	3	3	..	..	..	7	47	39	3	7	..	..	..	6	1	..	4	2	..	..	5
1-3 months	107	..	107	..	..	15	..	..	10	34	15	..	..	..	..	1	4	13	..	..	..	..	..	6	4	..	3	7	2	..	7
3-6 "	103	..	103	..	..	16	1	..	5	45	16	1	..	..	1	3	16	..	..	..	..	..	..	1	..	1	7	5	1	..	..
6-9 "	57	..	57	..	..	6	1	..	7	14	6	1	..	..	..	..	5	..	..	..	..	..	..	5	..	6	11	..	..	1	..
9-12 "	58	..	58	..	..	3	3	1	7	16	3	3	..	..	3	..	9	..	..	..	..	2	1	1	1	1	6	3	1	..	1
Total deaths under 1 year	452	..	452	..	30	43	5	..	30	115	43	5	..	..	4	9	54	82	3	..	1	3	1	19	6	1	26	28	7	14	..

Nett Births in the year { Legitimate, 2,805 }  
 { Illegitimate 101 } 2,906

Nett Deaths in the year { Legitimate Infants } 452  
 { Illegitimate " } ..

Totals—URBAN DISTRICTS.







TABLE V.

1.

FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES,  
AND HOMEWORK.

1.—*Inspection.*—Including Inspections made by Sanitary Inspectors or  
Inspectors of Nuisances.—1911.

## RURAL DISTRICTS.

Premises. (1)	Number of.		
	Inspections. (2)	Written Notices. (3)	Prosecutions. (4)
FACTORIES ... .. (Including Factory Laundries)	37	...	
WORKSHOPS ... .. (Including Workshop Laundries)	225	2	Nil.
WORKPLACES ... .. (Other than Out-Workers' premises included in Part 3 of this Report)	13	...	
Total ... ..	275	2	Nil.

## URBAN DISTRICTS.

Premises. (1)	Number of.		
	Inspections. (2)	Written Notices. (3)	Prosecutions. (4)
FACTORIES ... .. (Including Factory Laundries)	233	...	...
WORKSHOPS ... .. (Including Workshop Laundries)	556	19	...
WORKPLACES ... .. (Other than Out-Workers' premises included in Part 3 of this Report)	104	...	...
Total ... ..	893	19	Nil.

## WHOLE COUNTY.

Premises. (1)	Number of.		
	Inspections. (2)	Written Notices. (3)	Prosecutions. (4)
FACTORIES ... .. (Including Factory Laundries)	270	...	
WORKSHOPS ... .. (Including Workshop Laundries)	781	21	Nil.
WORKPLACES ... .. (Other than Out-Workers' premises included in Part 3 of this Report)	117	...	
Total ... ..	1168	21	Nil.





TABLE V.

HOME WORK.

Nature of Work.	Out-Workers' Lists. Section 107.										Out-Work in Unwholesome Premises. Section 108.			Out-Work in Infected Premises. Sections 109-110.		
	List Received from Employers					Prosecutions.					Instances.	Notices served.	Prosecutions.	Orders made. [Sec. 110]	Instances.	Prosecutions. [Sections 109-110]
	Twice in the Year.		Once in the Year.			Notices served on occupiers as to keeping or sending Lists.	Failing to keep or permit inspection of Lists.	Failing to send Lists.	Instances.	Notices served.						
	Lists†	Con-tractors	Work-men	Lists†	Con-tractors						Work-men					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	

RURAL DISTRICTS.

Wearing Apparel	Making ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Cleaning and Washing ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

lii.

URBAN DISTRICTS.

Wearing Apparel	Making ... ..	11	...	43	2	...	12	16	...	...	...	...	...	...	...	...
	Cleaning and Washing Sacks ...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
	Total ...	11	...	43	2	...	12	17	...	...	...	...	...	...	...	...

WHOLE COUNTY.

Wearing Apparel	Making ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Cleaning and Washing Sacks ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total ...	11	...	43	2	...	12	17	...	...	...	...	...	...	...	...

\* The figures required in Columns 2, 3, and 4 are the Total number of Lists (received from Employers who sent them both in February and August as required by the Act) and of the entries of names of Out-Workers in those Lists. There are, therefore, double the number of such employers and (approximately) double the number of individual out-workers whose names are given, since in the February and August Lists of the same employer, the same out-workers' names will often be repeated.

TABLE V. REGISTERED WORKSHOPS.

Districts.	Number of Workshops on the Register, (S. 131 at the end of the Year).
RURAL ... ..	... .. 441
URBAN ... ..	... .. 923
WHOLE COUNTY ... ..	... .. 1364



## Part XIII.

### Local Government Board Enquiries held in Cornwall during the Year 1911.

District.	Nature of Enquiry.	Result.
<b>Rural.</b>		
Boscastle ...	To borrow £407 and £223 for construction of new reservoir and improvement of water supply of Boscastle in the parishes of Forrabury and Minster.	Sanctioned on Oct. 2/11.
St. Germans...	To provide Working Class Dwellings in two parishes	
St. Columb ...	To borrow £300 for the purpose of laying out Sewage Farm	Sanctioned.
ditto	Crantock Sewerage Scheme... ..	In abeyance.
Truro ...	Perranporth Water Supply ... ..	Loans sanctioned.
<b>Urban.</b>		
Torpoint ...	To borrow £685 for Private Street Works	Sanctioned.
	Appeal by certain frontagers against an order calling on them to pay certain sums of money in connection with private street improvements	Appeal determined in Council's favour.
Looe ... ..	Augmenting existing Water Supply ...	Scheme abandoned owing to failure to arrive at an equitable settlement with a riparian owner.
Saltash	Public and private street improvements ...	Loans sanctioned.
Borough Lostwithiel	Loan of £1,250 for additional reservoir ...	Sanctioned.
Borough Truro City ...	Application to purchase certain property	Both applications approved.
	Workmen's dwellings at Waterloo ...	
St. Ives ...	Loan of £1,400 for laying sewers and culverting a portion of Stennack River	Sanctioned.
Penzance Borough	Loan of £2,275. Improving and extension of promenade, etc.	Sanctioned.

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