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#### **Contributors**

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# ANNUAL REPORT

## ON THE HEALTH

OF THE

Rural Sanitary District

OF THE

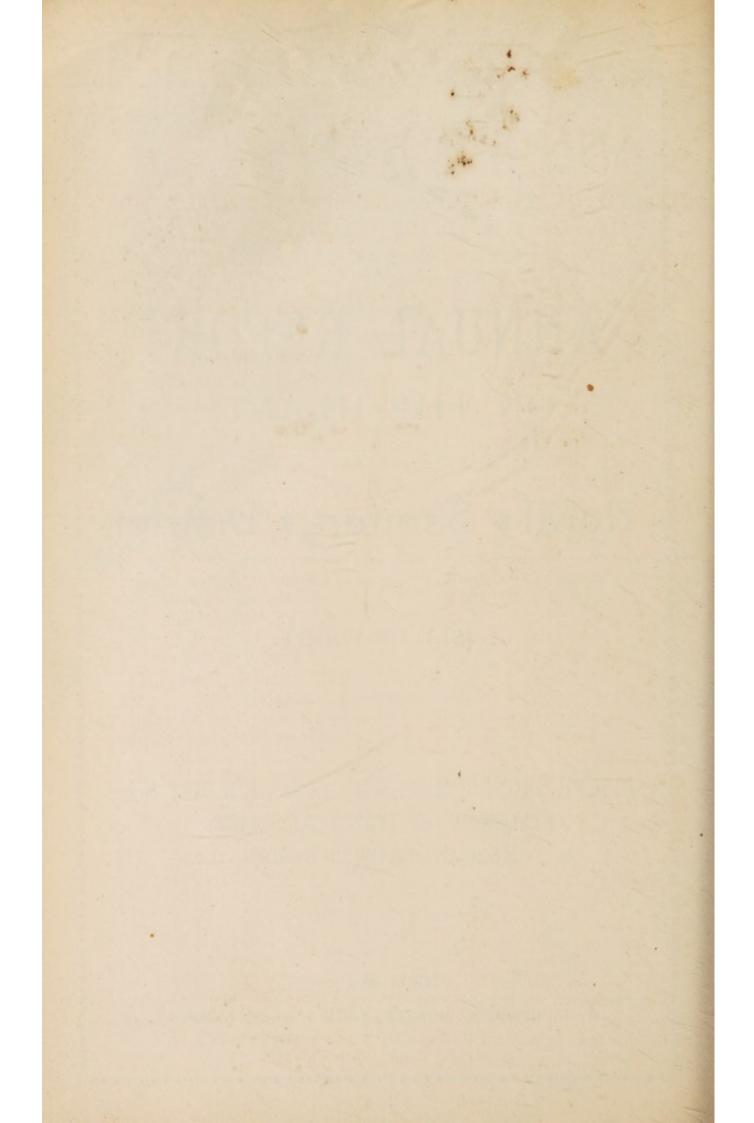
ISLE OF WIGHT.

BY

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Isle of Wight::

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## ANNUAL REPORT

ON THE

HEALTH OF THE RURAL SANITARY DISTRICT OF THE ISLE OF WIGHT,

FOR THE YEAR 1891.

To the Members of the Isle of Wight Rural Sanitary Authority.

## GENTLEMEN,

I have the honour to submit to you my Annual Report on the Health of your District in the year 1891, which embraces

- 1. Vital Statistics.
- 2. The Sanitary History of the Year.
- The Sanitary State of the District generally at the end of the year.

## I .- VITAL STATISTICS.

The population of the Isle of Wight Rural Sanitary District Population. on April 1st, 1891, was 29,747, and assuming the rate of increase during the second quarter of the year corresponded with the mean annual increase during the previous decennium, it is calculated that the population in the middle of the year numbered 29,790, an actual increase of 217. The natural increase of population, measured by the excess of births over deaths, was 262. The whole of the Isle of Wight contains 93,342 acres. 87,599 acres are within your District, which, therefore, contains an average population of 0.34 per acre.

756 children were born during the year. There were 375 Births and male and 381 female births, of whom 24 males and 26 females Deaths. were illegitimate.

494 persons died during the year, of whom 262 were males and 232 were females.

The births and deaths in each quarter were as follows:-

			Births			Deaths.	
		M.	F.	Total.	M.	F.	Total.
ıst qua	rter	109	86	195	88	66	154
2nd	,,	93	99	192	70	62	132
3rd	,,	87	102	189	51	65	116
4th	,,	86	94	180	53	39	92
		375	381	756	262	232	494

The birth-rate during the year was 25.3 per 1000 living, a Birth-rate and rate 1.2 per 1000 higher than in 1890, which was the lowest Death-rate, record for the eight years during which the Vital Statistics of your District, as a whole, have been reported to you,

The death-rate was 16.5 per 1000 living, which was 1.4 per 1000 higher than the exceptionally low death-rate of the previous year, and was the same death-rate as that of 1889. 70 persons died within the District, however, who were not permanently resident there, and, deducting these deaths, the death-rate is reduced to 14.2 per 1000.

The following have been the births and birth-rates and the deaths and death-rates in your District during the past nine

years :-

	Births.	Birth-rate.	Deaths.	Death-rate.
1883	776	27.5	429	15.5
1884	834	29.6	386	13.7
1885	769	27.2	439	15.4
1886	861	30.4	445	15.7
1887	798	28.1	451	15.9
1888	730	25.7	490	17.3
1889	769	27.0	469	16.5
1890	714	24'I	448	12.1
1891	756	25.3	494	16.2
	and the same			

Birth-rate and Death-rate in England and Wales.

Births and

Deaths in

nine years.

The birth-rate in England and Wales in 1891 was 31'4 per 1000, and the death-rate was 20'2 per 1000 living. The birth-rate was 1'2 per 1000 higher than in 1890, which was the lowest on record, and just equal to the mean rate in the five years 1886-90. The death-rate, which in the ten consecutive years 1881-90 had not risen above 19'7 per 1000, and had averaged 19'1, rose last year to 20'2, which is, however, lower than the rate recorded in any year prior to 1881. The death-rate per 1000 in the Country Sanitary Districts of England and Wales, that is to say, of the population residing without the boundaries of the Urban Sanitary Districts existing in 1886, was 18'5. The mean death-rate per 1000 of ten years, 1881-90 in the extra-urban areas, was 17'8.

Comparison
of the Birthrate and
Death-rate in
the I.W.
Rural
Sanitary
District with
those of
England and
Wales.

The birth-rate in the Isle of Wight Rural Sanitary District was as much as 6'1 below the exceedingly low birth-rate of England and Wales in 1891. The death-rate was 3.7 below the death-rate of England and Wales, or, deducting the deaths occurring within the District among persons not belonging thereto, 6.0 below it. The death-rate of the Isle of Wight Rural Sanitary District, compared with that of the districts outside the boundaries of the Urban Sanitary Districts of England and Wales, was 2'0 per 1000 lower, or, if the deaths which occurred among those temporarily residing in the District be deducted, 4.3 below. When compared with the mean mortality per 1000 of the ten years 1881-90, in these country districts the death-rate in 1891 was 1'3 below the mean deathrate, and 3.6 below it if the deaths among temporary residents were deducted. As compared with the average death-rate of England and Wales, and with that in small towns and country parishes, the death-rate in the Isle of Wight Rural Sanitary

District during the past nine years was as follows:-

ENGLAND AND WALES. RUFAL DISTRICTS. 1883 4.3 below the average. 2.5 below the average. 1884 5'9 1885 3.6 2.1 1886 3.6 2'1 1887 2.9 1.3 1888 0.2 o.6 above the average. 1880 1.4 0.2 1890 4.1 2.4 below the average. 1891 3.4 2.0

8.7 male deaths and 7.7 female deaths occurred in each Male and District in 1801.

District in 1891.

Of the 494 deaths registered in 1891, 67 were those of in- Infant fants under one year of age. The proportion of deaths under Mortality. one year of age to registered births was 88 per 1000. In the six previous years it was 79, 108, 87, 73, 89, and 85 per 1000. In England and Wales the proportion of deaths under one year to registered births was 149 per 1000, the mean proportion in the previous ten years having been 142. 41 children, or 8'; per cent. of the deaths, died under 5 years. 206 per. Mortality of sons, or 41.7 per cent. of all the deaths, died at or over 60, of the aged. whom 63 were between 60 and 70, 83 between 70 and 80, 49 between 80 and 90, and 11 were over 90. The greatest age at death registered was 93. Three persons- two men, one of whom was a farm labourer, of Staplers, near Newport, and the other a shoemaker, of Stroud Dairy, near Ryde; and one woman, a spinster, of independent means, at Binstead—had attained this age before they died.

70 of the deaths were of persons who did not form part of Deaths of the permanent population of the District. Of these, 50 died Strangers to in the Workhouse and 16 in the Hospital for Consumation of the District. in the Workhouse and 16 in the Hospital for Consumption at St. Lawrence; an inhabitant of Ryde died at Wootton; a stranger drowned himself at Ventnor; the dead body of a man was found in the sea off Niton; and the body of another

man was washed ashore off Brighstone.

7 persons died violent deaths a female infant was acci- Deaths by dentally suffocated in bed; 2 men committed saicide, one by hanging at Haylands, another by drowning at Ventnor; and 3 men were drowned, one while bathing at Freshwater, and the bodies of the other two were cast up by the sea. The deaths by violence were equal to 1'4 per cent. of the deaths from all causes, and to a rate of 0.23 per 1000 of the population. The deaths from violence in England and Wales were at the rate of 0.64 per 1000 living. The percentage of deaths from violence in your District during the past nine years was as follows :-

1883 1884. 1885. 1886. 1887. 1888. 1889. 1896. 1891. 3.3 4.5 3.8 2.9 3.4 3.0 2.2 3.4

Mortality from certain diseases. Zymotic diseases. The 494 deaths from all causes included—

attributed to scarlatina, diphtheria.

3 ,, membranous croup.

5 ,, fever. 18 ,, measles.

8 ,, whooping cough.

6 " diarrhœa.

49

The 49 deaths attributed to these principal zymotic diseases were equal to a death rate of 1.64 per 1000 living, and were 9.9 per cent. of the deaths from all causes. The zymotic deathrate in the three preceding years was 0.42, 1.6, and 0.67 per 1000 respectively. In England and Wales the deaths attributed to these zymotic diseases corresponded to a rate of 1.83 per 1000 living, against 1.86, 2.22, and 2.14 in the immediately preceding three years. The average annual death-rate from zymotic diseases in England and Wales during the last decennium (1881-90) was 2.30 per 1000, against 3.95, 4.15 and 3.38 per 1000 respectively in the three decennia comprised in the period 1851-80.

Phthisis.

There were 67 deaths from phthisis, or consumption, in the Isle of Wight Rural Sanitary District in 1891, 16 of which occurred in the Consumption Hospital at St. Lawrence. These 16 persons were not Isle of Wight people; and 2 deaths from phthisis in the Workhouse were those of persons who did not belong to the District, but who were natives of the Island. The 67 deaths from consumption were equal to a death-rate of 2.2 per 1000, or, deducting the deaths among strangers, of 1.6 per 1000. The percentage of deaths from phthisis to all the deaths was 13.5, or, excluding the deaths among strangers, 9.9. 10.7 of the deaths in your District among persons permanently resident in the Isle of Wight occurred from phthisis. This is 1.4 per cent. above the mean percentage of deaths from phthisis to all the deaths in England and Wales.

Lung disease.

86 persons, 9 of whom did not belong to the District, died from bronchitis, pneumonia, or pleurisy. This is is equal to a death-rate of 2.8 per 1000. In England and Wales the mean death-rate in these pulmonary affections is 3.3 per 1000.

Heart disease.

49 persons, 8 of whom did not belong to the District, died from heart disease. The death-rate from heart disease was 1.6 per 1000, or, deducting the deaths of 8 non-residents, 1.3 per 1000, which is the mean death-rate from heart disease in England and Wales.

Cancer.

There were 12 deaths from cancer, which was equivalent to a death-rate of 0.40 per 1000, and to a percentage of 2.4 of the deaths from all causes. The mean percentage of deaths from cancer to all the deaths in England and Wales is 2.7.

Scrofulous diseases occasioned 11 deaths, 2.2 of the deaths Scrofula. frem all causes. 3.6 is the mean percentage of deaths from scrofula in England and Wales.

5 deaths from influenza were registered.

There were notified in 1891, 134 cases of infectious diseases, Infectious equal to 4.4 per 1000 of the population. 93 cases of scar- diseases. latina, 23 of diphtheria, 3 of membranous croup, 7 of enteric

fever, and 10 of erysipelas were notified.

Although the general death-rate was higher than in the pre- The incurred vious year, and corresponded with that of 1889, and although the I.W. the rise was proportionately greater in your District during the Rural Sanipast year than the rise in the death-rate in England and Wales, tary District it is satisfactory to note that including the deaths of tempo- in i891. rary residents, it continued lower than the mean death-rate of country districts in England and Wales Less satisfactory was the zymotic death-rate, which was, last year, only o'19 below that of the country generally-including that of towns and cities.

During the past intercensal period (1881-91) the rate of in- The Census returns. crease of population in the Isle of Wight Rural Sanitary District was much greater than during the previous intercensal period (1871-81), it having exceeded the estimate by more than 1000. This has been due in part to a large number of those who have occupations in the towns coming to reside outside them, and in part to the popularity of the Isle of Wight as a health-resort. It is unfortunate there are no means of estimating the population of the different villages and urban places of your District. In the census returns are given the inhabited houses and population of the Urban Sanitary Districts, and of the Registration Sub-districts, and if the Urban Sanitary Districts are situated in one Registration Sub-district it is, of course, a comparatively simple matter to determine the increase of population and of inhabited houses in the rural portion of that Registration Sub-district; but if an Urban Sanitary District, Newport for example, is included in two Registration Sub-districts, it is possible to arrive at the increase of population and of inhabited houses in the rural part of either Sub-district only very approximately. In the rural part of the Newport Registration Sub-district there would appear from the Registrar General's returns to have been 271 decrease in population and an increase of 16 inhabited houses during the intercensal period, which is manifestly incorrect. So wide is this Sub-district, including many villages, as Carisbrooke, Arreton, and Wootton, that if the number of its population and of its houses could be accurately ascertained it would be of little service for statistical purposes, although if there had been an increase of one or the other in an intercensal period local knowledge would enable one to determine in what portion of the Sub-district it had occurred. The Registration Sub-district of Cowes extends on both sides of the

Estuary of the Medina, and includes the Urban Sanitary Districts of East and West Cowes and the portion of the Urban Sanitary District of Newport east of the river. The approximate estimate of increase of population in the rural part of this district, which includes Gurnard, Tinkers Lane, Horsebridge Hill, Noke Common, Mark's Corner, Whippingham, and Fairlee Road, Newport, was 215, and of houses, 243. In the rural part of the Ryde Sub-district, including Haylands, Binstead, Fishbourne, and part of Haven Street, there would appear to have been an increase of 123 people and 10 houses, In Brading Sub-district, including Bembridge, Brading, Lake, Gatten and Shanklin within your District, the increase of population, excluding Sandown and Shanklin, was 602, and of houses 77. In the Godshill Sub-district, which includes Wroxall, Bonchurch, Upper Ventnor, St. Lawrence, Whitwell, Niton, and Chale, the increase of population, exclusive of Ventnor, was 347, and of houses, 117. And in Calbourne, which includes Freshwater and Yarmouth, there were 776 more people and 185 more houses in 1801 than in 1881. What is needed is the taking out separately of the populations and the inhabited houses of the different villages, hamlets, and populous places in the rural parts of the Isle of Wight; and, if an urban district is included in two registration sub-districts, the population and inhabited houses included in each registration subdistrict should be shown.

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(A) Table of Deaths during the Year 1891, in the Rural Sanitary Distric

(A) Table of Deaths during the	1 Car	100	, , , ,	il cii	0 100	arcer	Carr	reary Di	Serie
Names of Localities	Moi				ALL D A		SES,	L	
adopted for the pur- pose of these Statis- tics; public institu- tions being shown as separate localities.	At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwards.	Aged under five or over five.	Smallpox.
(a.)	(b.)	(c.)	(d.)	(e.)	(f.)	(g.)	(h.)	(i.)	1.
Newport.	55	8	2	4	3	18	20	Under 5 5 upwds.	
Workhouse.	67	6	5	1	11		44	Under 5 5 upwds.	
PARKHURST PRISON	13				1	10	2	Under 5 5 upwds.	
PARKHURST BARRACKS.	2	1			1			Under 5 5 upwds-	
Cowes.	30	4	7	2	2	3	12	Under 5 5 upwds.	
Ryde.	30	3	7			7	13	Under 5 5 upwds.	
Brading.	67	11	4	1	4	18	29	Under 5 5 upwds.	
GODSHILL.	-91	9	4	3	10	21	44	Under 5 5 upwds.	
ROYAL NATIONAL HOSPITAL FOR CONSUMPTION.	16				7	9		Under 5 5 upwds.	
CALBOURNE.	123	25	12	7	5	32	42	Under 5 5 upwds.	
	494	67	41	18	33		206	Under 5 5 upwds.	
The subjoined numbers have also to be taken into		injud	ging of	the al	ove rec	ords of	morta		1
Deaths occurring outside the divi- sion or district among persons belong- ing thereto.								Under 5 5 upwds.	
Deaths occurring within the divisi- on or district among persons not belonging thereto		4	4	1	7	21	33	Under 5	

## E OF WIGHT, Classified according to DISEASES, AGES, and LOCALITIES.

TALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.

						- 5		!								1		
	-	F	EVER	s.						d .				sy.	e.			
dnoso	er Typhus.	Enteric or Typhoid.	. Continued	φ Relapsing.	& Puerperal.	o. Cholera.	Erysipelas.	E Measles.	Whooping Cough.	Diarrhœa and Dysentery.	G. Rheumatic.	.9 Ague,	.t. Phthisis.	Bronchitis, S Pneumonia, and Pleurisy.	. Heart Disease.	E Injuries.	Diseases.	Total.
Ī				1			1	1		1	10		1	1			6	10
•								A					4	11	4	····	24	45
								4					2	3			4	11
			••••							1			2	9	11		33	56
			+															
	••••							••••		1			4	2	6			13
I																	1	1
1			••••	••••	1													1
Ī								1	3					2	1		4	11
Ì	••••						••••	1			••••		4	1	2		11	19
I								1	4				Constant of the last of the la	2			3	10
Ì	••••			••••			••••				1		2	5	1	1	10	20
								1	1				3	3	2		7	15
		2								2	1		7	7	7		26	52
														5		1	6	13
		1			1					1	1		15	8	8	2	35	78
													16					16
								8						6			22	37
•								1					12	21	7	2	41	86
		1						16	8	1			1	22	3	1	53	108
-		3			2			2		5	3		66	64	46	6	180	386
H	1	1	P	1	7				T	1	T	1						
-																		
								3						2			3	8
-	[									i			18	7	8	3	25	62

(B) Table of Population, Births, and of New Cases of Medical Officer of Health, during the year 1891, in the according to Diseases,

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.  (a.)  (b.)  (c.)  (d.)  Workhouse.  Population at all Ages.  Census 1891.  (b.)  (c.)  Under
NEWPORT.  154 Undr 5 upwd Under DARKHURST PRISON.  Under Under Under Under Under Under
Newport.  Workhouse.  Darkhurst Prison.  154  Under  Under  Under  Under  Under  Under
PARKHURST PRISON.  Under  Under  Under
PARKHURST PRISON.  5 upwd Under
5 upwd
Cowes. 72 Under 5 upwd
RYDE. 49 Under 5 upwd
Brading.  Under 5 upwd
GODSHILL. Under
ROYAL NATIONAL HOSPITAL FOR CONSUMPTION.  Under
CALBOURNE. 192 Under
TOTALS

State here whether "Notification of Infectious Disease" is compulsory above mentioned Disease, insert in the columns with blank headings the accordingly. State here the name of the Isolation Hospital used by the situated; and if not within the District, state where it is situated.—No

INFECTIOUS SICKNESS, coming to the knowledge of the Rural Sanitary District of the Isle of Wight: classified Ages, and Localities.

Nev			Sickn	ess in	each Med	Local C	ality Officer	comir of H	ng to	the k	nowle	edge
					FI	VER	s.					
. Smallpox.	ie Scarlatina.	; Diphtheria.	Membranous Croup.	er Typhus.	Enteric or Typhoid.	- Continued.	∞ Relapsing.	o Puerperal.	Cholera.	Erysipelas.	12	13
	2 7											
_	7	2				-			2.	1		-
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	····	16			····					1		
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			2	-								
			1		1		-			1		
	21	5	2									
	72	18	1		7			1		10	1	1

in the District—Yes. Since when?—January 1st, 1890. Besides the names of any that are notifiable in the District, and fill the columns sick of the District. Mark (H) the Locality in which such Hospital is Isolation Hospital.

## 2 .- THE SANITARY HISTORY OF THE YEAR.

As the sanitary incidents of the year are passed in review, attention is more particularly directed to those zymotic, or preventible, as they are sometimes called, diseases which may have prevailed in your District during the year, and to the means adopted at the time to limit their operation. But the consideration of the broader question of the measures taken by the Sanitary Authority, with a view to the prevention of such diseases in the future, is of far greater interest than their incidence in any particular year. And, although the protection of the community from zymotic disease is a primary duty, and the degree in which this end has been attained is a test of the success of sanitary administration, the interests of the public health, I need scarcely remind you, extend infinitely beyond the limits of protection from specified diseases, for the ability to labour, the personal habits, the comfort and happiness of the population are influenced, directly and indirectly, in no small measure by the sanitary conditions under which they live. In the Isle of Wight Rural Sanitary District, I beg respectfully to say, these interests are confided to you, and these conditions are largely under your control.

Zymotic diseases.

The zymotic diseases present in your District in 1891 were, scarlatina, diphtheria, membranous croup, measles, whooping cough, enteric or typhoid fever, and erysipelas. There were cases, also, of puerperal fever, which were not notified, and which I had no opportunity, therefore, of investigating, and deaths from diarrheea.

Scarlatina.

At the close of the year 1890 scarlating prevailed at Arreton, there was a case of the disease at Newchurch, there were two cases in one house at Guildford Farm, Haven Street, and four cases in one family at Carisbrooke. There had been, apparently, a large number of cases of mild scarlatina at Arreton without medical attendance, not one of which was notified, and it was only the accident of entering a cottage and observing a child with scarlatina rash, which led to the discovery of the outbreak. At Newchurch, the disease, the presence of which was notified, did not spread, but a boy from Alverstone attending Newchurch School had scarlatina, which was communicated to other members of his family who attended Alverstone School. These children were sent back to School as soon as the fever stage had passed, and thus the whole population of Alverstone and its neighbourhood became infected. Had these first cases been notified, as they would have been if they had received medical treatment, much expense and trouble would have been avoided in that community. My attention was called to the existence of scarlatina at Alverstone by the Subregistrar, who informed me that a death from scarlatina in Borthwood Copse had been registered. I found there

were two other cases in the thatched stone cottage, in which four children of the same family, who were all then born, had been swept away by diphtheria in 1884. The poison had been introduced from Alverstone, and, on going there, I found the disease had already spread through the village. Subsequently twenty-nine cases were notified, but there were more than that. There was a first case at Chiddles Farm, which was isolated by sending away the other five children. These would probably have escaped but for the mistaken notion that scarlating is not communicable after a month. They were allowed to return home, without consulting me, at the end of that time, and they all had the disease. There was a mysterious outbreak of scarlating at Brading at or about the time it prevailed at Alverstone, in February, March and the beginning of April. cases in three families there were notified, four cases in two families at *Yarbridge*, and one case at *Yaverland Rectory*. The patients were all carefully isolated, and the disease did not spread. In May there was an isolated case in a cottage at Whitecross, Shanklin—the child attended the Board School, at Gatten. In September eight cases, six only of which were notified at the time, occurred in Heath Road, Lake. Some visitors from the mainland, whose children, convalescent from scarlatina, played with the children subsequently affected, took lodgings in Heath Road in August. From the beginning of January to May 19 cases in seven of the Prison Warders' families at Parkhurst were notified. The first case occurred in November 1890. It was that of a telegraph clerk employed in Newport, in which town scarlatina was present. From October to December five other cases, in two of the Prison Warders' families were notified. The first of these cases were those of children attending the National Schools, Newport. There had been a great many cases among the children attending these Schools. Some of the Warders' children from infected families attended a Dame's School at Horsebridge Hill, and a child living near, who attended the same school had scarlatina in January. In December, a Prison Warder's child, who attended the National Schools, Newport, and who lived on Horsebridge Hill, had the disease. In March and April three cases occurred in one of the Pan Cottages, Shide, near Newport, The first case was that of a child attending the Board School, Newport. In January the mother of the children residing at Guildford Farm, Haven Street, whose cases were notified in 1890, became ill with scarlatina. At the end of April and the beginning of May there were four cases in two families in Carisbrooke Castle. One family, it was evident, infected the other, but the source of the poison could not be satisfactorily traced. In May a London child visiting Carisbrooke became ill the day after her arrival. There could be no doubt she brought the poison with her. In May, also, there were two cases in one family at Birchfield,

Blackwater. The disease developed shortly after the patients returned home after visiting Windsor and London. In December a boy arrived home at Wootton, from school at Ryde, with scarlatina developing. It was notified in September that a case of scarlatina had occurred at Godshill Park in April. In July a case occurred at Lowtherville. A London servant convalescent from scarlatina, had returned home, and frequently nursed the child who became affected. Of the 93 cases of scarlatina notified, with the exception of those at Parkhurst Prison, which is outside your jurisdiction, in no instance did the disease spread after notification, beyond the house in which it occurred, or, with few exceptions, in the house in which it occurred, notwithstanding that, in too many cases, the patient's nurse cooked the food and was laundress and maidof-all-work to the family. For example, at Pan Cottages, one child's case was notified on March 25th, and the other on March 28th, and that of the mother who nursed them on April 4th; but although there were children in other cottages under the same roof, the disease did not spread beyond the infected house.

Diphtheria and Membranous Croup.

A house in the Undercliff, near Niton, was infected by diphtheria at the end of the year 1890 The second case, that of a young lady of 18, died on January 3rd, and her brother, aged 16, on January 21st. A sister, aged 14, became ill on January 11th, and another sister on January 13th. On January 21st a case of diphtheria occurred in a family visiting Southlands, a large isolated house near Chale. They had, on January 10th, come from Wallington, near Croydon, where the disease prevailed, a member of the family having been attacked on December 8th, 1890. She was released from isolation before Christmas. Another case occurred in this family on January 25th, and another on February 21st. On March 11th a boy of 51 years, attending the Board Schools, at Wrexall, was attacked by diphtheria, and died on March 20th. He lived at Span Cottages, a stone thatched house, with a foul midden privy, and an impure water supply from a dip well. On April 16th a Ventnor donkey boy of 14 returned to his home at the top of Castle Lane, Wroxall, ill with a bad throat. He died of diphtheria on April 27th. His two sisters were subsequently attacked, one on April 30th, the other on May 1st. Early in May other cases occurred in two families occupying adjoining cottages, belonging to the same owner. Diphtheria had more than once before broken out in these damp dilapidated dwellings, stand. ing on the Gault, and with an impure water supply derived from a dip soak well, polluted from the surface and the soil, and with foul midden privies. On May 28th a girl of 18 became ill with diphtheria and died on June 7th, at Yarborough Terrace, Wroxall, a place also noted for its impure water supply and bad drainage. At the time this patient was lying ill

there was a horrible stench from a drain opening close to the back door of the house in which she lived, and from the pan closet, which had no water service, the water supply being insufficient in dry weather for hand flushing, even. On May 8th a girl of 8 attending the Wroxall Schools, began to be ill with dipththeria, at Batchelor's Farm, a damp stone thatched house near Whiteley Bank. She died on May 19th. Her father was attacked on May 10th. There were two other cases in this family, A slop drain of agricultural or "but" pipes, which had been more or less choked for a year, leaked into the well and polluted the drinking water. In an old, dry that ched cottage at Godshill, a child of 7, attending the Parochial Schools, became ill with diphtheria on May 21st. A child of 3 was taken ill on October 15th, and died of diphtheria on October 22nd, in one of the houses of Downlane Terrace, Lowtherville. rooms were filthy in the extreme: ashes and rubbish were lying in a heap in the yard, over which sewage flowed from the yard drain, and the closet pan, which had no water service, was choked, The family had recently removed into this cottage from Longdown, Ventnor. On April 18th a girl of 8 attending the Board School, was taken ill at Carisbrooke with a bad throat, and died on April 26th. The house had an independent water supply, but the midden privy was most foul. A case of diphtheria was notified at Carisbrooke in October. The patient, a girl of 7, had a sore throat on October 25th. The cellar was damp and there was mould on the walls, the closet was of old D trap pattern, with no proper ventilation of the soil pipe, or open air disconnection between the house and the cesspit, and the latter was unventilated. At the end of November two cases of rapidly fatal membranous croup occurred at Yarmouth, one at the Coast Guard Station, the other in an old house in South Street. The children, aged 4 and 5\frac{1}{2} respectively, attended the Parochial School, and sat next to one another there. One was taken ill on November 24th and died on the 27th, the other was taken ill on November 25th and died on November 30th. The Schools have insanitary closets. At the Coast Guard Station the water supply is unfiltered rainwater; there was a stench from the slopwater drains which discharge on the foreshore; and the gardens are not of sufficient extent, apparently, for the disposal of the contents of the closet pails. At the end of December a girl of 4, residing in a damp, dirty old house in Wheatsheaf Lane, Yarmouth, and who attended the Parochial School, died of membranous croup. She was at School on December 24th, was taken ill on December 26th, and died on December 29th.

Measles was widely prevalent in your District in 1891. As Measles. the disease became epidemic in different sections of it, the primary schools were closed by my advice, or without reference to me. 18 children, but two of whom were under 5 years, died from measles. One of the deaths occurred in Dodnor

Lane, near the Workhouse, four in the Workhouse, two at Shide, Newport, one at Haylands, one at the Coast Guard Station, Bembridge, certified as "malignant measles," five at Freshwater, one at Lower Hampstead, two at Newbridge, and one at Calbourne.

Whooping Cough.

Pertussis, or whooping cough, was also widely prevalent. Two deaths occurred from this affection at Gurnard, and one at Whippingham, three at Binstead, one at Haylands, and one at Shanklin.

Enteric Fever.

There were seven cases of enteric, or typhoid, fever, but only six were notified. Three of the cases died. The case unnotified was that of a servant, aged 19, who was taken ill in Ventnor early in September, and was removed, first to Upper Ventnor in your District, and then to her home at Godshill, where she died on October 31st. A young man of 21 was ill with enteric fever at Freshwater Gate in February. He arrived home from the Military Hospital at Devonport on February 12th, and became feverish on February 14th. A case of enteric fever died in December in the next bed to his in the hospital, and when he left the same nurse who nursed him was nursing a case of enteric fever in another part of the ward. In March and April there was an outbreak of enteric fever at Bembridge, which could not be satisfactorily explained, but which appeared to be associated in some manner with the Parochial Schools. About March 9th, the school mistress, aged 28, of the girls' and infants' school, began to be ill. A girl of 12 attending this school was taken ill on March 12th. The old midden privy at the school had a large unventilated vault with an overflow. It had not been emptied, it was said, for years. The stench from this closet was distinctly perceptible in the schoolroom when the door was open. On March 15th the master of the boys' school was taken ill. The midden closets in this school were in a less foul state than that at the girls' school, but the water from the urinal did not run away, and formed a pool in the yard. During the present year, 1892, another girl attending the school has died of enteric fever. On April 6th, a pilot, aged 22, living in the same neighbourhood, was taken ill with enteric fever. These four cases did not drink water or milk from the same source. In July a woman of 44, residing at Lake, returned home ill from a visit in the neighbourhood of London. She died from enteric fever on August 7th.

Erysipelas.

The ten cases of erysipelas notified were mild cases of idio-

pathic erysipelas of no special interest.

Diarrhoea.

The six cases of death from diarrhœa included one associated with dementia, one case of infantile diarrhœa in an infant of two months, who died at Gunville, and four cases of senile diarrhœa.

Notification of infectious diseases.

A second year's experience of the operation of the Notification of Infectious Diseases Act in your district, has served to confirm the favorable opinion first formed of it, and to emphasise its value. So helpless to check disease would your Authority now seem to be without it, that it is difficult to realise it has been in force only two years. To fully comprehend the importance of notification you have only to observe an infectious disease like scarlatina running riot in a section of a protected district, Alverstone, for example, where the Act has not been observed. Examples like Alverstone and Arreton show how useless it is to adopt the Notification Act if its provisions are not obeyed. During 1890, although the heads of households did not notify as a rule, the medical men in attendance were general and prompt. Early in 1891 notification was delayed by inadvertence at Freshwater and Wroxall, and the fact was reported to you. Letters were directed to be written to the medical men calling their attention to the Statute. Subsequently, other instances of delay or of failure to notify were reported to you, and letters were written to medical men and to heads of households. No one knows better what the drive and hurry of the medical life is, and no one feels greater sympathy with his professional brethren than I do; but this is a question of the public well-being, which must not be jeopardised. However busy medical men may be they have to write death certificates forthwith, and these take longer than notification forms to fill in, and are not paid for as these are. Since I have had the honour to be medical officer of health in your District, I have been greatly assisted by the members of the medical profession, both in the centre and on the coast of the Island. A large number notified to me all their infectious cases as regularly and promptly before as they have done since the adoption of the Act by your Authority. I believe the laxity on the part of a very few is due to a want of appreciation of the necessity for promptitude and uniformity, for there has never been the slightest ground for friction, and there need not be, if the medical officer of health confines his attention to his legitimate duties, and does as he would be done by.

With an electorate containing a large uneducated element, it is unfortunate the Legislature did not render this beneficent enactment obligatory upon every sanitary authority. The fact of its almost universal adoption supports this view, because the few backward districts are undoubtedly a menace and a danger to those adjoining, in which the act obtains. Permissive sanitary legislation would seem to be an anomaly, for the Acts passed are accepted in the more enlightened districts, where additional powers are less necessary, and are refused in the more remote districts, where the interests of the public health require to be fostered and protected. The theory in providing these permissive laws is that sanitary authorities are earnest in their endeavour to promote the sanitary well-being

of the districts under their charge, and that they will adopt such powers as they find necessary to this end. But, in practice, it has been long known that zymotic disease cannot be controlled without notification, and that notification, to be efficient, must be compulsory. To their credit, other countries have preceded England in the adoption of compulsory notification; and yet it is a measure distinctly in accord with the English method as contra-distinguished from that favoured abroad, the English method being to isolate individual cases of disease, and to place in quarantine those only in whom disease may be developing, until the period of incubation is passed, while the foreign plan is to place sanitary cordons around infected districts. Six-sevenths of the population of England and Wales are protected by compulsory notification, and there should be no trifling with this important matter. The Notification Act ought to be at once made universally compulsory, and this is the unanimous opinion of the County Councils Association, the members of which represent public bodies possessing special qualifications for forming a correct judgment in the matter.

Isolation.

Excepting for statistical purposes, the knowledge of the existence of infectious disease is of little service, if its spread cannot be prevented. It is of the first moment that the poison which has caused the disease, and which is passing off from the patient's body, shall not have the opportunity of infecting other bodies. To secure this, certain measures must be adopted, the most important of which is the isolation of the patient. It is the duty of the medical officer of health to see that those measures are taken. But when the question of isolation comes to be considered in a particular case, it is often found most difficult to secure it. For example, a case of scarlatina occurs in a village, in a modern three or four roomed cottage, or in one of the old thatched stone cottages in which the bedrooms open one into the other. The family may consist of six or seven children, the youngest, perhaps, an infant at the breast. The mother, who is not able, probably, to obtain assistance from her neighbours, has to nurse the sick child, and prepare the food for the family, and wash and dress the other children: one after another each child takes the disease, and then, perhaps, the mother. As they become convalescent, the children go into the roads and play with their companions, and the disease spreads. I have described a very common case. The health of many a poor mother among the long suffering women of the peasantry is permanently reduced by the strain of nursing her children through an attack of infectious disease; and, with impaired vitality, she herself may presently succumb to an acute illness, or some hereditary malady, like consumption, may manifest itself. Or suppose in some populous district, where it is more difficult to isolate the dwelling, as when there are no walls

between the yards or gardens at the back, or one closet is common to two or more cottages, diphtheria or scarlatina, or smallpox appears, it is still more difficult to prevent the spread of the disease. Or take the case of houses occupied by two or more families, as in the Warders' Quarters at Parkhurst Prison and the difficulty in the way of securing efficient isolation will, be found to be even greater. An isolation hospital to which Isolation first cases could be removed would greatly assist in checking hospital. the spread of infectious disease in your District, and in relieving the burden of it in poor households, that is to say if it were made use of. I believe it would be used if there were no suspicion of pauperism attaching to it. To avoid any suggestion of pauperism, it should be universally available, and without charge, and it would come to be understood that it was provided by the community for the protection of the community, and that those who made use of it were not being granted a privilege, but were conferring a benefit. For a small area like that of the Isle of Wight, and, with the exception of Newport, entirely protected by notification, I am inclined to believe that one isolation hospital would be sufficient Even if it were seldom used it would be good policy to establish it in the event of small pox or cholera; just as it is good policy to pay premiums by way of protection against loss by fire, It would be good policy, too, to place the Isle of Wight on an equality with other health resorts in this respect, for the existence of an isolation hospital is undoubtedly regarded by visitors, not only as affording evidence that sanitary matters are attended to, but also as affording additional protection against infectious disease.

The Committee appointed to consider my annual report for the year 1890 reported to you upon this subject as follows:-

"The Committee have considered the reference to an Isolation Hospital. The difficulties are great and well known to the Authority. The Committee do not make any further recommendation, remembering the lengthy consideration already given to the subject, and the hitherto insurmountable difficulty in coming to a joint agreement with the Urban Authorities."

If the power were possessed by the County Councils to build isolation hospitals, as proposed, the Isle of Wight County Co uncil could solve the difficulty by building an isolation hospital for the use of those districts in which it would appear from the reports of the medical officers of health that such a hospital is required. The inability to isolate cases of infectious disease in a Government Establishment like Parkhurst Prison, would seem to be a serious defect not wholly without danger to your District.

After the recovery of a case of infectious disease the room or rooms occupied by the patient, and all articles likely to have become contaminated, which cannot be boiled, should be disinfected, or burnt. This has been done, as it should be in every

Disinfection.

case, by the Inspectors, Although I have not known disease contracted in your District after such disinfection as that employed, namely, sulphurous acid gas, it is more satisfactory to subject bedding and the like to great heat, as is done in Washington Lyon's portable disinfector, which I recommended you to purchase. Your committee reported to you upon this subject as follows :-

"The expense of a portable disinfector is reported so great that it appears to the Committee better to recommend compensation to be made, when desirable, for destruction of bedding, etc. An apparatus is available at the Ryde County Hospital, but in no single instance of disinfecting can a failure be traced. Notices of caution, in cases of

infection, should be served by the Inspectors."

These directions will be followed by your officers. It is of the greatest importance that the sweepings and refuse of the sick-room should be burnt, if possible, in the room, and not placed in the ashpit, and that the dejections of the patient should be disinfected, and buried where practicable. These and other directions are always given, as ordered by the Infectious Diseases Prevention Act, 1890, but it is desirable they should be embodied in printed notices to be served by the Inspectors, when they make their visits, in every case. When a case of infectious disease is notified in your District, disinfectants are supplied gratuitously, because it is right the community should pay for their protection from disease, and because efficient disinfection, and the danger to the public health if it be inefficient, should not depend upon the accident of pecuniary ability, or of peculiarities of individuality, which cause some persons to be over-provident and careful in expenditure, and others either to be lavish, or to spend whatever the circumstances of the moment render it necessary to spend.

Questions relating to water supply and drainage, and to several other matters which concern the permanent sanitary improvement of your District, or which have to do with its

welfare, have occupied your attention during the year.

In the aggregate, your Authority have spent, during the past 10 or 12 years, an enormous amount of time in the consideration of the question of byelaws for your District In the Public Health Act, 1875, the Legislature would appear to say, in effect, to rural sanitary authorities, "you are required to administer this Act for the benefit of your District; but, as rural districts vary greatly in character, if you do not find the provisions assigned to you sufficient to meet its sanitary needs, you may obtain other powers by applying for them, and, among them, the power to make byelaws." Having had, constantly, the experience that you could not meet the sanitary needs of your District without them, you long since decided you must have byelaws. You found yourselves unable to give effect to your resolution for sometime; but at length you ventured to apply to the Local Government Board for the urban power to make

Byelaws.

byelaws, and, that power having been granted, you decided to have two sets of byelaws, one set to apply to the whole of the District, and another more stringent set to apply to certain parts of it, that is to say, to parts of it which were of an urban character, or in which new buildings were being erected. You appointed a committee of your number to draw up two such sets of byelaws, and to define the districts within which the more stringent set should apply. Your committee had before them the byelaws in force in several districts similar to yours, but some of which were more exclusively agricultural, and in the St. Helens Local Board District. They settled, first of all, a set of byelaws to be applied to the whole of the District, and by modifying the byelaws, and more particularly the building byelaws, in force in similar districts, they settled those which should apply in certain sections of it. They then considered which sections possessed an urban character, and in which building operations were being carried on, or were likely to be carried on in the near future. These districts were marked off on the iin. ordinance map, and were then reduced, in order that their boundaries might be accurately defined. Thus contracted they were recommended for adoption, together with the two sets of byelaws, to your Authority; and you agreed that they should be submitted to the Local Government Board for their approval in the ordinary way. In reply, the Local Government Board wrote you that, as regards the scavenging byelaws, they thought your Authority should scavenge in populous places. The subject has been recently revived, and you referred back to the committee the question of districts, requesting that they may be more accurately defined. The committee reported they found themselves unable to define more accurately the boundaries of the districts, which were, for the most part, parishes, or special drainage districts, the boundaries of which were well known. You have now submitted the extent and boundaries of these districts to the Easter Vestries for their consideration and opinion I have detailed the history of this question because it is a very important one, and because there would appear to be considerable misapprehension upon the subject, even in the minds of some of the members of your committee. It will be within your recollection, that I have always recommended you to follow the example of Authorities administering similar sanitary districts to your own, and apply the model byelaws of the Local Government Board, or some modification of them, throughout your District. I have endeavoured to point out to you that stringent by claws were necessary, and I have reminded you that byelaws could not be put into force where they did not apply. With reference to byelaws, your committee who reported to you upon my last annual report said,

"It is a matter of notoriety that the question of byelaws is now

under full consideration by the Authority."

Regulation of houses, and slaughterhouses.

You have no byelaws for the regulation of dairies, bakedairies, bake- houses, and slaughterhouses. Certain suggestions respecting cowsheds, duiries, and milkshops, however, have been issued which should be followed universally, and which may be made compulsory if they are not observed. Your committee expressed the opinion that a more frequent and thorough inspection of dairies should take place. Your committee were also of opinion that bakehouses and slaughterhouses should be registered and regularly inspected, as in the case of dairies. It is of the very first importance that all pantries, dairies, bakehouses, slaughterhouses and other places where food is stored or prepared, should be kept most scrupulously clean. If this be neglected it may become contaminated and produce disease.

Scavenging.

The subject of scavenging the more populous places in your District has been brought prominently before you by the letter of the Local Government Board to which I have already referred. The desire to modify the districts, within which your committee reported it was desirable building byelaws should be in force, would seem to have some connection with the proposal to scavenge portions of these districts, and with the contributory areas for this particular work. Any person practically acquainted with some of the populous places within these districts, must know the inhabitants cannnot, themselves, arrange for the disposal of their refuse, and, as it is hopeless to expect the owners of the houses in which they live to do so, there remains only for you to put in force the powers vested in you under sec, 42, P.H.A., 1875, and which you may be required to do by order of the Local Government Board. It is objected, that those who benefit by the scavenging should pay for it; but it is impossible to restrict rating in this manner. The right policy of sanitary authorities is to make their contributory areas as wide as possible, in order that the contributions for sanitary purposes may not oppress individual ratepayers; and this is not unjust, for the whole community benefit by diminishing the risk of disease to which a portion of it is exposed. For example, I will instance what I admit is an extreme case, that of Seymour Place, Bembridge, a Court of six or eight houses. The occupants, with the exception of one of the tenants, who is too decrepit, had been in the habit of throwing their house-refuse over a hoarding on to the property of the Brading Harbour Company. This having been prohibited they now take it to the shore. The whole of the ratepayers of the Bembridge special drainage district must be sufficiently interested to be willing to pay for its removal and deposit elsewhere, in order to prevent a nuisance on the shore. value of land, of the tenancy of it, is increased by proximity to a populous place, and whatever prejudices the prosperity of the place is a matter of concern to all whose interests are associated with it.

During the year your attention and that of your officers Town refuse. has been called, as usual, to the nuisances arising from the deposit in your District of the refuse from the towns, which you have no power to control. The strongest remonstrances came from visitors to Ventnor, who complained that they could not drive to the east of that town, or inland, without suffering annoyance from the stench arising from town refuse. If byelaws should ever be in force in your District, you may compel the refuse to be deposited farther from the highways and from inhabited houses, but the distance you propose will not, I fear, materially affect the matter. It appears to me the towns alone can solve the question by burning their refuse, and this, I believe, will have to be done in the end. Theirs would probably be the greater benefit, for the bulk of the complaints come from dwellers in the urban districts, and it is they who consume the pork fed upon the garbage of these rubbish heaps, the horrors of which they can scarcely realise. For the "dust" of the town does not contain simply ashes, and decaying vegetables, and rotten fruit. The sweepings of the foulest dwellings, and of the sick-room, the dejections of the sick and of children, used poultices and dressings of wounds, human hair, removed because of diseases of the scalp, or because of lice, filthy garments, swarming with vermin, old wall papers, impregnated with the exhalations of human bodies, and the like, I have known to find their way to the ashpit, and from the ashpit to your District. Sometimes this foulness goes back to the towns by a way the inhabitants little suspect, perhaps. On an arable field of your District, immediately to the south of an open reservoir from which a considerable town is supplied with water, refuse from that town was placed in heaps; and on a meadow within the urban boundary, and adjoining the reservoir on the north, were other heaps of town refuse. The material of these heaps, constantly disturbed by a number of swine, had become dry by exposure, and, as the south wind blew, it was carried in clouds of dust to the reservoir. A week later a stiff northerly gale was transferring the refuse from the meadow to the reservoir. The money cost of an outbreak of disease in that town would, probably, have paid the expenses of its refuse destruction for several years.

Another form of refuse which, from time to time, causes se- Slaughterrious nuisance in your District, and has done during the past house refuse. year, is that from slaughterhouses. Blood and offal are placed upon the land and pigs are turned on to it to devour them. During the summer, dairy cows were feeding in a meadow near Godshill, upon which slaughterhouse refuse from the bacon factory at Wroxall, was deposited within a hundred yards of a house, and within 250 yards of Summerbury Farm, where the stench was almost intolerable. The effluvium was so strong that the milk of the cows grazing in the next meadow was tainted by it. Such refuse should be buried in quicklime.

weed.

Decaying sea- Your attention was called, during the year, to the seaweed nuisance, which exists periodically in different parts of your District, and more especially at Colwell, where it is collected in heaps to be used as manure, and at Binstead, where it accumulates on the shore and decomposes. A jetty, which extends to low water mark, may influence the accumulation at Binstead, and there may be a deposit of sewage there from beyond your District, but much of the nuisance has proceeded from the seaweed collected in a bathing pond. The remedy at Colwell is, obviously, regulation by byelaw; at Binstead it is more difficult to determine, because there is no road to the shore which a cart could traverse. Removal by barge would involve considerable outlay to which there would be no "setoff." But the inhabitants of the neighbourhood suffer from the nuisance, and it may be necessary to make a cart road to the shore, to enable farmers and others to utilise what is really a valuable fertiliser. In the meantime, the nuisance would be diminished if the pond were kept free from weed.

Medina Cement Works.

Of its kind, one of the most troublesome nuisances of your District has been that arising from the Medina Cement Works. Carried across the estuary by the S.W. wind, or across the land westward, by the E. and N.E. winds, the fumes and smoke from these works have been a constant source of annoyance to the people of Whippingham on the one hand, and of Horsebridge Hill on the other. The proprietors of the Cement Works, at which an important industry is conducted, which gives employment to a large number of men, have, I believe —and this is the opinion of Mr. Alfred C. Fryer. Inspector for the Southern District, of Alkali Works-done their best, at considerable expense, to minimise the nuisance. During the year under review fewer complaints than usual have reached me, and from my own observation I conclude there has been a considerable diminution of the peculiar effluvium and of the dense black smoke.

Recurring nuisances.

Although some of the recurring nuisances of the District have disappeared there remain a considerable number which may be dealt with under sec. 66, P.H.A., 1875, or by bye-law. The existence of recurring nuisances is a reproach in any sanitary district, for they show the Authority have not properly grappled, in the several cases, with the conditions upon which they depend. Similarly, in reviewing the sanitary history of a given year, the greatest credit accrues to the Sanitary Authority in connection with measures taken by them which are calculated, by diminishing the causes of disease, to improve permanently the sanitary condition of their district. Of these measures the most important are those which have to do with water supply and drainage, and especially with water supply, for not only are the dangers to health in connection with drinking-water very great, but water must be, or

should be, supplied to flush them before sewers are made.

The sources of domestic water supply are the rain collected Water supply from the roofs of houses or outbuildings; subsoil drainage, which has been long in use at West Cowes for the supply of that town; deep and shallow wells; springs which burst out upon the surface and form the heads of streams; streams; shafts driven horizontally into the rock, as into the Upper Greensand.

Rainwater is the only water supplied to many houses in your Rainwater.

District, and you have during the year, certified several houses, under sec. 3, P.H. (Water) Act, 1878, with such a supply. You have been advised that rainwater is not the best for drinking, if good underground water is available, because it does not contain certain substances which are necessary to the animal economy. But rainwater should always be collected for it is soft and best for household purposes, and its collection secures the guttering of the roof, and this ensures a dry dwelling. Especially if it is to be used for drinking, rainwater should be well and securely stored, and it should be filtered before it is passed into the tank. This filtration of rainwater is all important and should be more carefully attended to. Directions to this end are given by the Inspectors, but they are not always followed In the case of Guildford Farm-house, near to Haven Street, such directions were given, but they were not observed. It would appear the person in charge of the work could not remember the details, and it was left to one of the workmen to carry out the plan which, he said, was adopted in a neighouring town. When the Inspector attended to inspect, he found a heavy flagstone, which covered the filter. had been cemented down, but he was assured it had been properly constructed and charged with filtering material. As a matter of fact the filter was a single chamber into which the stackpipe discharged directly, with the result that the sand in it was washed into the tank. I would suggest that printed directions, such as the following, be given whenever rainwater is to be used for drinking :- "All rainwater to be used for drinking must be filtered before it is stored in a water-tight tank. If the storage tank be placed underground, the rainwater must be delivered first into a catchpit of sufficient capacity, from which an overflow pipe should lead it into a filter. from which it passes into a tank. The filter must be watertight and of sufficient capacity. It is to be constructed like a "mid-feather," or "dipstone" trap, the slate or dipstone being placed in the middle and reaching to within about 13 inches of the bottom. Near the top of the farther, or tank, division of the filter, a discharge pipe, leading into the tank is to be placed. A convenient size for the smallest filter is 18in. by 18in. by 8in. inside measurement, which admits of a gin. slate being used for the division. To charge the filter,

place at the bottom 3in. of well washed sharp sand; above this place in each division a layer, 3in. thick, of clean road grit; then zin: of clean pea gravel; then zin. of hazel nut gravel; then 3in., or more, of larger gravel, well washed. If the tank be above ground a substitute for the catchpit must be constructed. The filter is to be covered with a stone or other cover so fixed, but not fastened down, that water cannot reach it from the surface and that it may readily be raised. The catchpit will require to be cleansed once a month or oftener, and the contents of the filter to be renewed once in six months, or oftener. The storm tank must be sufficiently capacious to contain all the water which passes through the filter. A circular tank 7ft. in diameter by 9ft. deep, will hold about 2000 gallons." As, in clay districts, rainwater is the only supply generally available, proper storage is of the first importance. The failure to maintain rainwater pure, in many instances, is due to want of attention to the filter, and particularly to the non-renewal, periodically, of its contents.

Subsoil water.

In no part of your District is subsoil water purposely collected as a household supply, although that issuing from field pipes is sometimes used. If pipes were placed at sufficient depth beneath a pasture to ensure filtration and oxidation of impurities, a wholesome supply may be secured in places where there is at present a great dearth of water.

Shallow wells

A large proportion of the water of your District is derived from shallow surface wells liable to pollution. As you will see by the summaries of the Inspectors, several wells, as in previous years, have been cleansed and protected, and, in some instances, reconstructed; a certain number have been cemented and clay puddled as far down, at least, as the subsoil, and their heads have been raised above the surface. Your committee in their report say,

"Your committee are of opinion that better steps should be taken throughout the Island to protect the openings of wells from surface pollution."

In the country, the larger number are "dip" wells, which are particularly liable to contamination, and to a few of these pumps have been affixed during the year. It is not right that new houses should be certified if the wells have not pumps affixed. Even this small additional expense is avoided by many who build houses for the occupation of the poor. It is rarely a well is closed in your District, because of the hardship which would be inflicted by doing so. There were only two wells closed during the year under review.

Deep wells.

The deep wells are comparatively few. Most of them are in the Chalk, but, in the Tertiaries, wells have been carried down a considerable depth to the Bembridge Limestone, and even to the Bagshot Sands. Some of the deep wells supply water

to considerable areas. The waterworks of the Ryde Corporation, from which Haylands and Binstead are supplied, obtain water from the Greensand and Chalk of Knighton; and your committee reported to you that

"The water supply to cottages at Knighton is still a pressing matter"

and not carried out."

The Newport Corporation have increased their water supply, which furnishes many parts of your District, by sinking a deep well in the Chalk at Carisbrooke, during the year; and the Bembridge Harbour Company have sunk a deep well to the Headon Beds, from which they hope to be able to supply

Bembridge with water.

Water issuing from the rock is the source to which you Heads of should look for the independent water supply of some of the streams. villages in your District. Whitwell and Brook, to their great advantage, are supplied in this way, and Niton, Southford, Wroxall, Brading, Arreton, Tinker's Lane, Shorwell, and Brighstone could be. It is a comparatively easy matter to collect the water in a reservoir and to lead it to the village. leaving the volume of the stream not perceptibly diminished. Even if no sanitary purpose were served, which is impossible, the comfort and happiness of the labouring population is greatly increased thereby. The question of the independent water supply of several places by this means has engaged your attention during the year; and your committee have reported to you in connection with my last annual report that

"the Surveyors should prepare plans and estimates of water supply from the spring at Southford, at Niton, and at Shorwell"; and further, "that Lady Mary Gordon be approached with a view to obtaining a pure water supply for the village of Shorwell"; and that "the attention of the Parochial Committees should be given to the water supply at Wroxall, Gurnard, Tinker's Lane, Horsebridge Hill,

Brading, and Bembridge."

Not one of the streams of your District, a short distance Streams. from its source, is fit to drink from, and yet stream water is a good deal used. The Isle of Wight Waterworks Company who supply Sandown, take the water from the Eastern Yar and filter it with much success, inasmuch as they manage to get rid of the bulk of the organic matter. If a water supply derived from a stream, even after thorough filtration, is not the best possible, you are glad to have it supplied to Lake and Gatten, and the part of Shanklin within your District, to take the place of well water, polluted, or liable to pollution. The streams are the source of water supply, speaking generally, from Shorwell and Brighstone to their outfall at the sea. The population of Shalfleet generally drink from the stream, as do many at Newbridge, and some at Calbourne. Your committee expressed in their report the opinion that

"it is to be desired that the specially appointed committee to consider the water supply at Fivehouses, Calbourne, Newbridge, and Shalfleet should be able to arrive at a satisfactory arrangement.'

Adits.

Adits driven into the Upper Greensand, above the Gault, as was done to supply the Convent, at Carisbrooke, would probably yield sufficient water to supply St. Lawrence, Chale, Brighstone, Hulverstone, Arreton, and other places. I believe it was proposed last year to supply Limerstone and Thorncross in this manner, a project which, it is to be hoped, may be carried out.

Gunville water supply.

One of the works of a permanent character accomplished during the year has been the supply to Gunville, and part of the Forest Road, of Chalk water, from the reservoir of the Newport Waterworks, at Alvington Down. Many difficulties had opposed you, and negotiations had more than once failed, when the Corporation of Newport decided to lay the water main, and to supply the place in the same manner as a private company could do, your Inspector having first obtained the signatures of the owners, who gave an undertaking to have the water laid on to their property. We shall not again see the people of Gunville carting water for drinking, and household purposes from a polluted stream a mile off, or dipping it from foul holes by the roadside. You, doubtless, owe much in this matter, to a gentleman, officially connected with the Corporation of Newport, who, when he was a member of your Authority, practically shaped the course which has brought about that, which all agreed ought to be done. If you will permit me to say so, I think you would sometimes carry questions, which have long been before you, to a practical issue, if individual members of your Authority would take charge of them, and make them their own property, so to speak.

Binstead water supply.

Outbreaks of disease at Binstead, from time to time, have directed your attention for many years to the fact that its polluted water, derived from surface wells, was a constant source of danger to the public health. After much negotiation you saw your way clear to apply to the Local Government Board for leave to borrow money to meet the expense of laying water mains from the boundary of the Borough of Ryde, to supply the water of the town to the people of Binstead. Mr. S. T. Smith, C.E. held an enquiry early in January, as a result of which, leave was given to borrow £250, and the works were carried out in the Autumn under the superintendence of the Surveyor of the East Medene.

Freshwater water supply.

The sanitary condition of Freshwater, a popular and rapidly increasing watering place, in which epidemic diseases have been particularly fatal, has long occasioned great anxiety. Draining into leaking cesspits, the unprotected surface wells have become almost universally contaminated in the sections where the subsoil is porous; while in the clay districts, the inhabitants have been dependent, in many instances, on badly stored rainwater. The north-western and western portion of

the parish, which has now been formed into a separate drainage district, has, for sometime, had an independent water supply from the reservoir of the Totland Bay Company, at Headon Hill. A company have, during the past year, constructed waterworks at Freshwater Gate, from which nearly the whole of the remaining portion of the parish, and possibly Yarmouth also, may be supplied with pure water from the Chalk. The well, from which it is derived, is sunk close to the junction of the Chalk with the Tertiary Strata, to the depth of only 14ft. or 15ft. It is pumped from thence to a reservoir of 180,000 gals. or 190,000 gals. capacity, situated upon Afton Down, some 28oft. above the sea. An engine pumps about 12,000 gals. per hour into the reservoir.

You applied to the Isle of Wight Waterworks Company last Shanklin year to continue their main from Gatten to Shanklin, where water supply. some of the wells had become polluted, although several of them contain most excellent water. Your Inspector canvassed the district, and the Company, being satisfied with the number of promises to take the water obtained by him, complied with your request, and that part of Shanklin within your

District has now an independent water supply.

You have had reported to you for several years, that cot- Water supply tages, known as Pan Cottages, occupied by agricultural labour- of Pan cottages. ers, had no proper water supply. The people dipped from a soak hole at the bottom of a large garden, periodically dressed with pig manure, the water of which was very impure. These cottages are situated on the edge of the Chalk. Under pressure from your Authority, a well was sunk in the Tertiary Clay and not in the Chalk, where water would have been found. Much money was thrown away, and the attempt was abandoned, as you could not compel the provision of water within the cost prescribed by the P.H.(W.)A., 1878. The property has recently changed owners, and during the year, in compliance with the suggestion of your officers, a pipe has been laid from the Newport water main, at Shide, and an independent water service secured. It is very satisfactory that the comfort of these poor people has been ministered to, as well as their risk of disease diminished.

These important works of independent water-supply to four populous places, and the no less important supply of pure water to a few of the hard working peasantry, have raised your District, permanently, to a higher sanitary level. There are some, unfortunately, still left, who take what is known as the parochial view of sanitary improvements, and who regard as of no interest to them what does not directly affect their immediate neighbourhood. An apt illustration once addressed to you by a gentleman, whose breadth of view is associated with a wide experience and knowledge of sanitary matters, is worth repeating. He said a stone thrown into the centre of

a piece of water causes the greatest disturbance at the point of impact, but the waves formed, although larger at the centre, ripple the whole surface of the lake, and at length reach the circumference, and beat upon the shore. So the effect of sanitary improvements, although most felt where they are made, extends throughout the district, and is appreciated beyond it. And no sanitary district, and certainly no health resort, such as the whole of the Isle of Wight is, can be uninfluenced by a sanitary improvement effected in any part of it.

Bembridge water supply, At Bembridge proper, the majority of the inhabitants drink from a shallow, public well, sunk in the gravel, the water of which is of low grade, if not actually suspicious in quality. In connection with building operations, the Brading Harbour Company have bored at the top of the hill on which Bembridge stands, and some half mile to the south-west of the village, 302 feet to the Headon Beds. The bore-hole is tubed nearly the whole depth. It is proposed to pump direct from the bore-hole, by means of a gas engine, to a tank of 25,000 gals. capacity, placed on a water tower, close to the well. I am indebted, for these particulars, to Mr. F. M. Coldwells, of the Brading Estate and Harbour Works. The water is abundant, and the Company hope to be able to give Bembridge an independent water supply from this source.

Arreton water supply.

As it was dangerously polluted, you thought it right to recommend the closing of a semipublic well in the highway not far from the graveyard at Arreton, and a ditch through which sewage flows, many of the inhabitants resorting to it for their drinking water. Nearly the whole of the property in Arreton belongs to three proprietors, the two large farms, and the majority of the cottages being in the hands of two of them. The well was sunk by the predecessor of the third owner, and the tenants of the other proprietors were permitted access to it. An attempt has been made to supply these tenants, and those of the owner of the well, from the hill to the north of Arreton Church. The diviner's rod was used, and a reservoir constructed, but, as yet, perfect success does not seem to have attended the enterprise. The more scientific plan would have been to discover the true junction of the Upper Greensand with the Gault, and then to have driven a heading into the former, free of the Gault, which renders water in contact with it unpalatable. On the estate of the other large proprietor water, sufficient for the supply of the village, issues from the Upper Greensand at Cherrywood, where a reservoir might be readily constructed for its storage. It would seem to be unfortunate the two proprietors did not combine to render this supply available, as the inhabitants of Arreton universally drink from surface wells in cultivated gardens.

Knighton water supply.

Since the waterworks of the Borough of Ryde have been established at Knighton the wells in the neighbourhood have

become dry, and a farmhouse and the adjoining cottages have been without water some five or six years. In compliance with your legal obligations you called upon the owner, under sec. 3, P.H. (Water) A., 1878, to provide water. As he failed to do so you proposed to gutter the roof of a slated double tenement in order to furnish a rainwater supply, the alternative being to lay a main from the Ryde Waterworks at the expense of the parish of Newchurch. You applied to the Local Government Board as to the amount you could recover; and, as a result, an informal enquiry was held at Newchurch by Mr. S. T. Smith, C.E., Local Government Board Inspector, at the end of April. Mr. Smith pointed out that a rainwater supply could scarcely be considered satisfactory, when a supply of good underground water, such as that supplied to Ryde, was available. In the end, the matter was delayed for six months, to enable the owner to make arrangements for such supply in the mean time. Apparently, he has been unable to do so, for at the 'end of the year, and at the time of writing the houses in question are without water.

The committee specially appointed to consider the question Fivehouses, of the water supply of Fivehouses, Calbourne. Newbridge, Calbourne, and Shalfleet met two or three times and you granted them Newbridge, and Shalfleet met two or three times, and you granted them and Shalfleet £ 50 to enable them to prosecute their enquiries by means of water supplies. experimental borings, but, as yet, nothing has been done. Your committee is wise in exercising great caution, for the subject is a difficult one; but it will have to be grappled with, and brought to a successful issue, as Fivehouses is practically without water, and many of the inhabitants of Calbourne, Newbridge, and Shalfleet are dependent upon the polluted stream.

The Northwood Parochial Committee have recommended Tinker's Lane you to apply to the owner of the spring in Ruffins' Copse— water supply. who gave the people of Whitwell the water that has been led to that village—with a view to utilising it for the supply of Tinker's Lane, it having been already laid on to houses on his estate, A favorable reply has been received from his representative, and the Northwood Committee will formulate a scheme.

The same Committee were of opinion that, at present, the Gurnard supply from rainwater tanks and wells is sufficient at Gurnard. water supply. They request you, however, to insist upon cesspits being made tight, a wise recommendation, for the wells will inevitably become poisoned if the sewage is discharged into the subsoil.

The Parochial Committee were further of opinion that you Horsebridge should endeavour to obtain Carisbrooke water for Horsebridge Hill water Hill by the continuation of the main of the Newport Corpo- supply. ration from the Upper Prison, at Parkhurst, to the Hill, and, if possible, to Noke Common. The Corporation of Newport have signified their intention not to themselves continue their mains to Horsebridge Hill, but they may yet see their way to do so.

Constant water service.

In my last annual report, when speaking of Whitwell, I said it had a constant water service, which no town in the Isle of Wight possessed. It has been pointed out to me that I was in error in making this statement, for the Borough of Ryde possesses a constant water service, and the low level service at Newport is also constant. It gratifies me to make this correction, for there is all the difference between a service that is constant and one that is not constant. When the water is turned off, the mains are, of course, charged; but water is certain to be drawn off so long as any will come. A vacuum is thus created in the pipes, and if there be any defect, air, it may be polluted air, will be sucked into the main from the soil, or, if a tap be turned on in some unwholesome house, the air, containing, perhaps, disease germs, will be sucked up into the pipes. I once, at night, went into a scullery in which there was an excremental stench arising, I found, from two vessels containing the dejections of a patient suffering from typhoid fever. Upon placing a glass of water under the water tap and turning the tap on, the water was sucked up from the glass into the pipe. Had the tap been turned on in the hope of drawing water, the fever polluted air of the room would have been sucked up as the water was, and the poison of enteric fever would probably have passed into the pipe.

Sewers.

germs, which make their way along the line of least resistance, wherever that may happen to be. This line has too often led to the interior of dwellings, access of the poisons to which has been assisted by the law of diffusion of gases. We have endeavoured to block the sewer gas from our houses, at first feebly, by means of bell traps and D traps; and then more vigorously, by making openings into the sewer, to let the gas out into the street, or to let the outside air into the sewer to dilute the gas, according to the relative temperatures of the sewer and the atmosphere, and by disconnecting the drains from the interiors of the houses. Now, we make open-to-the-air disconnecting chambers trapped on the sewer side, and erectventilating shafts; but why do we not flush the filth in the sewers right away every day, or two or three times a day, if

necessary, by means of flushing tanks at the end of each sewer branch, and so prevent the formation of sewer gas? Because we have not provided the water, or because we will not face the necessary outlay. The sewers of your District are not

The channels by which sewage is removed become them-

selves great dangers to health, if they are permitted to be simply elongated cesspits in which the contents are left to decompose and generate poisonous gases, loaded with disease

Flushing.

"that special attention of the various parochial committees in places where sewers exist, should be drawn to the great desirability of better means of flushing"; and "that the attention of the Parochial Committee of Arreton should be directed to the best means of properly

flushing the sewer at Wootton Bridge."

I would again call your attention to the fact that when it is Ventilating necessary to carry a sewer ventilator to a considerable height, the best form of shaft is not used in your District. I have seen such a shaft carried higher than any shaft ventilator on the Island, independently of support, in as exposed a position

as could be found in any part of the Isle of Wight.

You obtained sanction to borrow £700 for the purpose of a Haylands sewer at Haylands, a poor district adjoining Ryde. As Hay-sewer. lands grew drains were made, free from control, on private land, and were ultimately connected, as regards those on the summit and the eastern slope of the ridge upon which it stands, with the Ryde system of sewers. That portion of Haylands situated on the western slope of the ridge was in part drained by a sewer which emptied into cesspits. Some years ago it was in contemplation to tunnel beneath the ridge, in order to discharge the sewage of this western section into the Ryde sewer also, and plans and specifications were obtained for this purpose; but it was hoped the less expensive scheme adopted, which met the exigencies of the moment, would prove sufficient for the future. But the cesspits were a continuing nuisance, and as it was necessary to lay down sewers in neighbouring roads, which would have increased the difficulty, you determined to connect either with the Binstead or Ryde sewer system, adopting, in the end, the latter alternative. The work was carried out in the early summer, and since its completion, the Ryde Parochial Committee and your Authority have had much trouble in connection with claims for entering upon land without notice, for damage to crops, and injury to health from overflow of sewage, owing to a block in the sewer from the masonry of a lamp-hole dropping into it. You have had also under consideration the design and mode of construction of the sewer, it having been stated the accepted plan was departed from; and you appointed an independent engineer to report to you upon the whole subject, These matters have been so recently before you, it is unnecessary to go into further details; but I would remark that it was reported to you some 1600 feet of the sewer dips slightly away from, instead of towards, the outfall, and that it contained stagnant sewage. This is very serious, and although, in any case, this sewer, as all other sewers, should be flushed, it is now absolutely essential either to force the sewage through the

There has been much delay in carrying out your decision to Totland Bay sewer Totland Bay, which has been in part due to the fact that sewer. the consent of three or four Authorities had to be obtained, and because the outfall had to be extended much farther seaward than was at first contemplated. You have now been authorised to borrow £ 3.350 for the work, which will not be

sewer mechanically, by means of a strong flush, or to relay a

portion of it.

sufficient, and Totland Bay has been constituted a special drainage district.

Fteshwater Gate sewer. There is a sewer, draining two hotels, at Freshwater Gate which discharges into the Bay. During the summer and autumn complaints were made, chiefly by visitors, of nuisances in connection with this sewer outfall, which has since been extended. But now that Freshwater has an independent water supply, the time would seem to have arrived for your Authority to consider the desirability of sewering the whole of this particular district of Freshwater. For the prosperity of a charming watering place, as well as in the interests of the public health, it is desirable the outfall of the sewer, when constructed, should be extended a considerable distance seawards.

Fairlee drainage.

You appointed a special committee to consider in what manner the nuisance arising from the drainage of houses crowded upon area at Fairlee Road, just beyond the boundary of the Borough of Newport, may be best abated. This nuisance arises in part, from a cesspit into which a drain common to two houses drains, and in part from overflow drains of other houses. The committee reported to you that a sewer should be constructed to connect with the sewer within the Borough, and you applied to the Corporation for consent, which was refused, at least for the time being. Your committee then recommended that the proposed sewer should discharge into cesspits in a meadow which borders the river Medina, and you ordered plans to be prepared. These were submitted for their opinion to a Parochial Committee of Whippingham, an extensive parish, of which Fairlee forms part. The committee were strongly of opinion the sewer should not be made, and that the nuisance should be otherwise abated. The natural outfall of the sewer at Fairlee would be into the Newport system, and if this cannot be, the difficulties are certainly great. It is undesirable to drain into cesspits, and the rent demanded for the use of the field, in which it was proposed to place them, would furnish interest and sinking fund of a loan sufficient to provide the sewer. It is no more likely your difficulties at Fairlee will be met than they have been met in similar places in your District without providing a sewer, and you have certain obligations under sec. 15, P.H.A., 1875, and you may be declared to be in default under sec. 299, P.H.A., 1875; but if the expense of one can be avoided by the abatement of the nuisance, it will be highly satisfactory. This nuisance, however, is a very serious one, which has already caused disease, and whatever remedy you may decide upon must be thoroughly effectual. It is useless to attempt to minimise its offensiveness, for houses are being vacated and property is depreciated on account of it.

Landguard Road sewer. Several double cottages in the Landguard Road, at Shanklin, drained into a small cesspit common to each pair of houses. These cesspits leaked into the highway, creating a nuisance, and to abate this you laid down a sewer which con-

nects with the Shanklin system.

In April, the relaying a considerable length of the sewer in AtherleyRoad the Atherley Road, Shanklin, which connects with the Shank-sewer. lin system in the Hope Road, was completed. This work was rendered necessary by the frequent blocking of the old sewer, owing to bad construction. The sewers in this part of your District were made before your Authority came into existence, and, if the remainder are like that which has been superseded, they are very badly made.

During the year you have adopted regulations for private Sewer drains, which include those for connecting with sewers. The connections. absence of such regulations has been a great evil in your

District, and you failed to obtain a conviction in one case

because you did not possess them.

You decided to have plans of your sewers prepared. This Plans of has been a long felt want. In my last annual report, in sewers. speaking of a house called "Braemar," at Haylands, I said it drained into a cesspit. The information was obtained from the caretaker and the agent of the property. This statement was challenged, and there was no means of verifying it without going to the expense of opening the ground, for one could no more see the junction with cesspit or sewer through the earth than one could see the D trap, removed from a closet in the same house, through the floor, for it was only discovered when the floor was removed in the course of reconstructing the closet.

The very serious question of the insanitary state of primary Sanitation of schools has been frequently considered by you. Not only Primary should the drainage of all Schools be unexceptionable, but Schools. they should be supplied with wholesome drinking water. The best kind of closet arrangement for schools is, perhaps, that know as the trough closet, which is emptied automatically, or by raising a plug. This plan was adopted during the year under review at the Shalfleet Parish Schools, at Ningwood. At Calbourne, a spadeful of earth is thrown into each closet from the back, every night. After the outbreak of typhoid fever at Bembridge the closet of the girls' school was connected with the sewer, but no disconnecting or flushing chamber was provided. At Yarmouth, the matter of connecting the School closets with the sewer, has been long pending, and your Committee recommended that it should be pressed forward. Doubtless managers of parochial schools find it most difficult, in many instances, to collect funds for the support of voluntary schools, and extra expenses cannot be met; but the interests of the public health are paramount, and they must be secured. Your Inspectors should regularly inspect the primary schools in your District.

The proposed extension of the Shanklin Local Board District.

The Shanklin Local Board having applied to the Isle of Wight County Council, to include portions of your District within the boundaries of the Shanklin Local Board district, an Enquiry was held at Shanklin, in September, by a Committee of their number, appointed by the County Council. The Committee reported unfavorably, and the application was refused.

This application was of far greater moment to the well-being of your District than some supposed, for, had it been successful, applications would have been made by other towns, which

could scarcely have been refused.

At first sight, it may seem reasonable that the government of a town should extend to its suburbs, but, on reflection, it will be seen how impossible sanitary progress in your District would be if sections of it having rateable value were cut off whenever the financial or other exigencies of the towns should seem, to their governing authorities, to require the extension of their areas. At the same time, it is incumbent on you to fulfil your obligations in the suburban sections of your District in a broad and liberal spirit, remembering that while with houses crowded upon area, their sanitary requirements are greater, and more pressing, their contributions to the general expenses of the District are large. Shanklin, within your District, is provided with sewers, and you have obtained for it an independent water supply. The inhabitants should see that their roads are kept in proper repair, and they may light their streets as the inhabitants of other suburban places in your District have lighted theirs. There would seem, therefore, to be no valid reason to interfere with the present arrangement, under which it forms part of the Lake special drainage district. Those who have watched the affairs of your District carefully, must see that the sanitary question is very much a question of finance. The wider the area over which expenses can be spread, the more readily is consent to expenditure granted. When it is proposed to spend money in any section, endeavour is made to narrow the boundaries of the special district which is to be the contributory place, to the utmost limit, until, if possible, they should include only the properties directly benefitted. For every house or field taken from your District, say at Shanklin, the contribution of every ratepayer throughout your District to the general sanitary rate, and of every ratepayer in the Lake special drainage district to special expenses, would be increased; and by so far as the rating was increased, would the sanitary question, which is of such vital moment, become more difficult.

Legal proceedings.

You took legal proceedings, at the beginning of the year, to compel separate connections with the sewer of semidetached cottages at Landguard Road, Shanklin. They had previously discharged into a cesspit, and the two cottages had been

connected with the sewer by means of one drain. You failed because you had no regulations for sewer connections. In the Autumn, you took proceedings against an Army meat contractor, whose agent had delivered 170 lbs. of diseased meat at Golden Hill Fort, Freshwater. He died before the case was heard.

The question of legal proceedings is a vexed one in your District. Members of your Authority are disappointed if you are unsuccessful, and failure is, of course, undesirable if it can be avoided. But the fact is lost sight of, that one of the greatest hindrances to successful sanitary administration, is the suspicion of unfairness, and partiality. I have known an unsuccessful prosecution at once put an end to a condition of things in your District, which was highly prejudicial to the interests of the public health. The surmise that your Authority, and your officers did not regard all as equal before the law, occasioned manifestations of antagonism and resentment, which at once ceased when legal proceedings were taken, notwithstanding your want of success, for men's minds were immediately reassured. No one would accuse your Authority of anxiety to prosecute; but you have your duties and responsibilities, and if you resolve upon legal action in order to secure the well-being of your District, and you fail, you have the satisfaction of knowing you have endeavoured to do your duty.

By a resolution of your Authority the Infectious Diseases The Infectious (Prevention) Act, 1890, and Part II of the Public Health Acts Diseases Amendment Act, 1890, became operative in your District, on (Prevention)

March 25th, 1891.

The most important of the sanitary enactments affecting Health Rural Sanitary Authorities passed by the Legislature in 1891, Amendment was "The Factory and Workshop Act, 1891," which amends the Act, 1890. law relating to factories and workshops. It places the sani- Sanitary tary regulation of workshops under the direct control of sani- legislation of tary authorities, instead of that of the Inspectors of Factories. It provides that if the medical officer of health becomes aware that any child (person under 14), young person (person under 18), or woman (18 or upwards), is employed in a workshop, he shall forthwith give notice of the fact to the Inspector of Factories for that district. It requires the Sanitary Authority to certify in the case of every factory built after January 1st, 1802, in which more than 40 persons are employed, that the storeys above the ground floor are provided with means of escape in case of fire, and to call upon owners of factories built prior to 1892, to provide means of escape in case of fire. It enacts that when the Inspector of Factories receives notice of the occupation of a workshop, he shall send it to the sanitary authority of the district in which it is situated. The Post Office Act, 1891, provides, that when samples are sent by post for analysis, they should be sent as registered parcels, and it

Act, 1890, and The Public

enables Rural Sanitary Authorities to undertake to pay to the Postmaster-General any loss he may sustain, to be defrayed as special expenses, if they consider it would be for the benefit of any contributory place or places in their district to establish a post-office, or telegraph office, or to provide any additional facilities (postal or other). The Customs and Inland Revenue Act, 1891, amends the provisions of the Customs and Inland Revenue Act, 1890, with respect to the exemption of certain houses, used for the sole purpose of providing separate dwellings, from inhabited house duty, upon the production of the certificate of the medical officer of health that the house is so constructed as to afford suitable accommodation for each of the families or persons inhabiting it, and that due provision is made for their sanitary requirements, by substituting "where the annual value of each dwelling shall not exceed £ 20," for "the rate of seven shillings and sixpence a week." It provides also that the Commissioners, upon receipt of the certificate of the medical officer of health, may grant relief in respect of separate dwellings of £ 40 annual value, by confining the assessment to the annual value of the house, and by reducing the rate of duty to threepence.

The report of the Isle of Council.

As you are aware, it is ordered that a copy of the annual report of the medical officer of health shall be sent, not only Wight County to the Local Government Board, but to the County Council of the County in which his district lies. The County Council are to examine this report, not for the purpose of supervising your work, or that of your officers, which is entirely beyond their province, but in order that they may ascertain if the Sanitary Acts are being properly administered in the particular district. A report upon the medical officer of health's annual report on the health of your District in the year 1890, was submitted by the General Purposes Committee of the Isle of Wight County Council to the Council, and was adopted by them. This report is evidence of the great care and ability with which the report on the health of your District was examined by the sub-committee appointed for that purpose.

Summary

Sanitary progress in your District during the past year, if less marked than in the previous one was no less real. In 1891 you gave effect to your resolves of 1890. You laid down sewers at Shanklin and Haylands, and a pure and independent water supply was provided for Gunville and Binstead, and to cottages at Pan, near Newport; works for water supply at Freshwater were in progress, and by your request the Sandown water main was continued from Gatten to Shanklin; you made regulations for private drains, and you rendered operative within your District the permissive sanitary legislation of 1890. Although in the opinion of some, possibly, more may have been accomplished, this summary of the good work done in the interests of the public health by your Authority during the

year under review, cannot fail to encourage all those who look forward hopefully to the future, to desire that the full benefit of the faithful administration of the sanitary laws in your District should accrue to the Isle of Wight and its people.

The Inspectors have furnished me with the following sum- Inspection

mary of their work :-

	WEST	EAST
	MEDENE.	MEDENE.
Number of Nuisances and other matters reported	378	416
" abated without final notice	165	225
" final notices served	19	28
Houses reported unfit for habitation	2	5
Houses placed in habitable repair	2	5
Houses closed by order	_	_
Houses cleansed and disinfected	13	52
Legal proceedings taken	1	1
C 'C	1	9
C C	1	2 2
Privy cesspools provided and properly constructed	20	31
	13	18
Privies put on the pail system	19	10
Wells sunk and improved supplies of water	10	40
obtained	48	46
Wells cleansed	16	13
Wells closed	1	1
Defective pumps repaired		6
Pumps provided	15	8
Houses drained and connected with the sewer	8	27
House drains repaired and trapped	66	61
Refuse accumulations from towns removed	2	3
Dairies inspected and re-inspected	67	43
Daries limewashed after notice	16	11
Bakehouses ,	5	8
Sewers extended and relaid		1
Water Mains laid	_	3
Persons selling Milk without being registered	4	_
Bad Meat destroyed by Order of Justice	170lbs.	
0 1 37 :	1	
Smoke Nuisances abated	-	

## Houses built and occupied in 1861.

WEST	WEST MEDENE.		EAST MEDENE.			
Freshwater Northwood Yarmouth Carisbrooke Shalfleet	3 5 12	Without Certificate	Arreton Brading Binstead Niton Godshill Newchurch	18 2 7 1	Without	

For the following meteorological summary for the year 1891, taken from the observations of temperature made at Lugley House, Newport, which is about 44 feet above the sea level, I am indebted to the Rev, E. W. Watts, M.A.

Month.	Maximum of Month.	Minimum of Month.	Mean Daily Maxi- mum.	Mean Daily Mini- mum.	Mean Tempera- ture.	Ramfall for Month-	No. of Wet Days.	Greatest fall in one Day
Jan	50:5	13.8	41.1	29.0	35.0	2.95	12	0.53
Feb	on 31st	on 19th	48.4	29.8	39.1	0.05	2	on 29th
Mar	on 28th 56.0 on 1st	on 28th 20·4 on 12th	46.4	34.6	40:5	2.58	15	on 24th 0.60
April	64·5 on 28th	24·5 on 1st	53.2	36.6	44.9	0.92	11	on 9th 0.48 on 4th
Мау	80·0 on 13th	30·8 on 17th	66.5	42.7	51.6	22.5	16	0·45 on 17th
June	79·0 on 19th	33.0 on 10th	69.8	50.1	59.9	1.85	10	0.42 on 22nd
July	78·1 on 16th	44.5 on 4th	69.6	52.1	60.8	2.37	13	0.71 on 26th
Aug	71·0 on 16th	40.0 on 30th	66.9	52.5	59:7	6.26	20	1 87 on 20th
Sep	77.5 on 12th	39·3 on 24th	66.6	50.1	58.3	1.40	15	0·31 on 17th
Oct	64·0 on 3rd	33·0 on 30th	58.1	44.5	51.3	8.74	21	1·19 on 21st
Nov		26·0 on 23rd	49.4	37.9	43.6	4.60	15	· 1·45 on 10th
Dec	54·1 on 4th	21·8 on 20th	48.1	36.4	42.2	4.99	22	1.09 on 1st

The rainfall at Newport in 1891 was 38.96 inches against 26.31 inches in 1890, 28.34 inches in 1889, 29.02 inches in 1888, 24.43 inches in 1887, 38.07 inches in 1886, and 29.32 inches in 1885. The number of wet days in 1891 were 172, against 153 in 1890, 163 in 1889, 179 in 1888, 141 in 1887, 202 in 1886, and 159 in 1885.

The weather 1890.

The peculiarities of the weather of 1891 were almost as marked as those of the weather of 1890. January was a month of unprecedented severity, the low temperature of December, 1890, which was also an unprecedentedly low month, continuing to January 22nd. With the exception of December 1st, the temperature was below the average, from November 25th to January 22nd. The end of the month was wet, the rainfall for the month having been 2.95 inches, which fell in 12 days. February was a remarkably fine month with high barometer. The nights were cold. The rainfall was abnormally small; only 0.05 inches fell at Newport, and in several places there was no measurable fall. After a week of fine weather at the beginning, March was a cold stormy month. The great snow storm of the 9th and 10th, which was accompanied by high wind, was very similar to that of January, 1891, April was a fine, dry, cold month, the driest April for

many years, only o'o2 inches of rain having fallen at Newport. Vegetation was very backward. May was a cold, wet month. In the middle of the month, for some days, the temperature was very variable, passing from winter cold to summer heat, and from summer heat to winter cold. On the whole, June was a very fine month. There was a week of fine weather in the middle of July, but the temperature of July was below the average, and the weather was showery at the beginning and end of the month. It was the coldest and wettest August for twenty years, and 6.26 inches of rain fell in the centre of the Island. The mean temperature of September was above the average. The first twelve days were fine, and there were three or four hot days. There was no frost. With the exception of December, 1876, October was the wettest month on record. 8.73 inches of rain fell at Newport November was showery, with a temperature slightly below the average. There was a very low barometer and a great storm on November 11th, which uprooted many trees. The first half of December was wet, stormy, and mild; there was a spell of fine, dry, cold weather from the 17th to the 25th; the last week was mild and wet. The mean temperature of the month was above the average.

The cold of January was unfavorable to health, and the death-rate among old persons and young children continued high. February was a healthy month; but the long cold spring, notwithstanding a fine, dry April, and the variable temperature of May, were prejudicial to health. A fine June and wet Summer with high underground water, was favorable to health. September was fairly healthy, as was a mild December; but October and November, being cold and wet, were not healthy months. The mortality in England and Wales, which had jumped from 17.9 per 1000 of the population in 1889, to 19'2 in 1890, again rose to 20'2 in 1891, the deathrate among persons aged 60 and upwards being 81.6 per 1000

against 68.1 and 75.3 in 1889 and 1890.

## 3 .- THE SANITARY STATE OF THE DISTRICT GENERALLY AT THE END OF THE YEAR.

Zymotic diseases, the spread of which had been successfully Health of the controlled during the year, were almost absent at its close.

There were two or three cases of scarlatina in the Warders' Zymotic quarters, at Parkhurst Prison, and one case at Horsebridge disease. Hill, and one at Wootton. There were also three or four cases in a house at Marks' Corner, contracted from two unnotified cases in an adjoining cottage.

A child was lying dead at Yarmouth from membranous Membranous croup. There had been other fatal cases, and cases of diph- croup. theria followed, but at the close of the year there was no recognised case, although many persons were suffering from throat affections.

District. Scarlatina.

Measles.

Measles prevailed at Bembridge, Brading, and Lake. There were also cases in the Chillerton District, and in the neighbourhood of Whitwell.

Whooping cough.

Cases of mild whooping-cough existed at Carisbrooke, in the neighbourhood of Arreton, and elsewhere.

The sanitary state of the District generally. The sanitary state of the District generally has been so recently brought under your notice by the report of the committee appointed to consider, in detail, my last annual report, that it will be necessary for me to refer only very briefly, with one or two exceptions, to each locality. The general sanitary state of the District does not vary greatly from year to year, but a comparison of its condition at the end of the year, with its state four or five years ago, shows that, notwithstanding its many defects, it has, undoubtedly, been raised to a higher

East Medene sanitary level.
Bembridge Bembridge.

Bembridge, at the extreme west of the Island, is a rapidly increasing watering-place. Six-elevenths of the new houses erected in the East Medene since the end of 1890, were built in the parish of Brading, the majority of them in Bembridge. Building operations have gone on particularly at Lane End, and on the land abutting upon the road leading to it, known as Lock's Lane, where there are several new villas of superior character. Lock's Lane and Lane End should be sewered, but, before this is done, the road in Lock's Lane ought to be made straight, to avoid the two angles which would be inevitable if the present line of road were followed; and I understand this will be done. In the near future, many new buildings will be erected at Bembridge, the Brading Harbour Company having commenced to lay out the Lodge Estate for building. While new roads on building estates should be sewered by the owners, it would seem to be a mistaken policy to decline to provide facilities for the drainage of houses on one side of the public road, that is to say, when the land abutting on the highway belongs to different owners. Brading Harbour Company having obtained, by deep boring to the Headon strata, an excellent supply of water for the Lodge Building Estate, believe they will have a sufficient surplus for the supply of the whole of Bembridge. It is doubtful if the reservoir they are making is of sufficient capacity for this purpose; but it is the duty of your Authority to offer every facility to the Company who seem able to confer so great a boon upon the place. At present, the population obtain their drinking water from a public pump, connected with a shallow well in the gravel, the water of which is of doubtful purity. When they do not go there, they drink rainwater, or the water of surface wells. There is abundant water in the old shingle bed upon which Lane End stands, but the wells are very liable to pollution. Tube wells, whether made of brick and cement, earthenware, or metal pipes, should alone be used at Lane End, and pumps should always be affixed to

them. I have already referred to the condemnation of the old Coast Guard Station, known as Harbour View, which has occasioned your Authority much trouble; and to Seymour Place, which ought never to have been permitted to be built. It was in a better state than usual at the end of the year; but, in the absence of public scavenging, the inhabitants take their house-refuse to the shore. Other nuisances there require attention, as does also a serious nuisance in a field at the back of the chapel, in the road leading from the church to the railway station. Some of the shaft sewer ventilators are a greater nuisance than they would be if the sewers were better flushed, an improvement the Bembridge Parochial Committee have promised. The sewer at Point is so level that a considerable deposit has taken place in it. It should be flushed daily. As the Brading Harbour Company will be greatly benefitted by the virtual monopoly of the water supply of Bembridge, and as large owners of house property they are greatly interested in the sanitary condition of the place, it has been suggested they should supply water sufficient to flush the sewers once daily. nuisance, which is likely to become a serious one, arises from the sewage of the Spithead Hotel, which comes back into the harbour with the young tide. The remedy is, to lengthen the sewer considerably, and to discharge it when the ebb tide is flowing strongly. It is unfortunate the whole of the sewage of the place is not discharged at one outfall. The sewage from several houses, discharged on to the foreshore, is about to be diverted by a sewer being made by one of the land owners, which is to connect with your Authority's sewer.

The old town of Brading exhibited, at the close of the year, Brading as great improvement, compared with its condition a few years ago, as any place in your District. Your committee expressed the opinion that the attention of the parochial committee should be given to the water supply of Brading, which is derived generally from public wells, apparently from the Bagshot Sands, which formation is at the surface there. There are, between the Mall and the New Road to the west of Brading proper, two or three deep private wells sunk in the Chalk. The people living on the Mall generally resort to the town pumps, and it is a painful sight to see old people toiling up the hill in the summer sun with a "turn of water." I have pointed out before, that the source of the rivulet which runs into the Back Lane may be made available, at no great outlay, as a supply for water to drink. Your Authority have done good service to Brading, by connecting the drains which formerly emptied into the old Commissioners' storm-water drain, now reconstructed, with the sewer, and by boldly facing your legal obligations, however trying, and breaking up the combined drainage at the backs of the houses, either by connecting each house separately with the sewer, or reconstructing the drain and treating it as a continuation of the sewer. It is to

be regretted you did not decide to do this earlier, as some owners have felt aggrieved, they having done this work themselves when called upon, and the notion that there is not absolute impartiality is a great obstacle to success in sanitary matters. When any sewer ventilator is offensive at Brading, it should be lengthened, as some have already been. As soon as a site for a shaft has been found at the highest part of the sewer system on the Mall, there will probably be a diminution of the sewer ventilator nuisance. I hope I may be able to arrange this important matter, which has been too long delayed.

Lake

Lake is an unfortunate example, of which there are others in your District, of a suburb of a town having been built for the labouring population, free from the slightest sanitary control. The jerry-built houses crowded upon area, and with scarcely any curtilage, just within your District on your left, as you descend the hill from Sandown, and those on your right beyond Lake Farm, are as unsatisfactory as any within your District. The condition of the latter houses, occupied by gipsy hawkers, has been so frequently reported to you I need not describe it. The supply of Sandown water to Lake, where the wells had become generally contaminated, has changed its sanitary aspect completely. Some of the houses in Alfred Road, and elsewhere, in this neighbourhood, are still without wholesome water, and your Inspector is giving his attention to the matter. The very serious question of making sewers in Lake, which are so much needed there, will be considered in due course, as you have adopted the suggestion of your com-

"an estimate of the approximate rate necessary to carry out a satisfactory sewerage scheme for Lake District should be made by the

Inspector."

Having regard to the interests of Sandown, the only practicable scheme would appear to be to connect the proposed Gatten and Lake sewer with the system of that town. For the present, the cost of giving effect to such a plan would probably impose too great a burden upon the District; but it is desirable such a scheme should be sketched out, in order that you may be prepared to put it into operation as soon as it is possible, either by an extension of the Sandown sewer towards Lake, or by such an increase of the rateable value of the District, as would render the outlay justifiable.

Gatten, beyond Lake, on the Shanklin Road, has also an independent water supply. A benevolent lady has built a hospital at Gatten, the sewage of which it is proposed to treat

by the amine process before utilising it on the land,

As I have previously mentioned, Shanklin within your District is now independently supplied with water, by the continuation of the main from Gatten; and it is sewered. I have to report a great improvement in this part of your District, partly due to the relaying the sewer in Atherley Road, and the

Gatten

Shanklin.

making a sewer in Landguard Road, and partly as the result of a from house to house inspection made by the Inspector last summer.

A large building estate is being laid out at Luccombe, situ- Luccombe. ated between Shanklin and Bonchurch, to which you should give your attention. If possible you should insist upon an independent water supply being obtained, and upon sewers being made. It is for the representatives of the ratepayers to see to it that speculators do not throw upon the community the burden of the cost of these essentials to health, in places where population will quickly be aggregated. Many of your present difficulties are due to the neglect of precautions of this kind in the past. If sewers and water supply are not provided by the proprietors of this building estate, a special drainage district will presently be formed, when the nuisances are sufficiently in evidence, as the contributory place to provide sewers for Luccombe. It would be absurd to have a less extensive drainage district than the parish of Bonchurch, and one can imagine the protests from the village of Bonchurch, where they get rid of their sewage in a less expensive if in a less sanitary manner.

Bonchurch has Ventnor water. Many of the houses are of Bonchurch. superior class with sufficiently large cisterns for storing it, but the water service should be constant.

Situated on the north-west slope of St. Boniface Down is Lowtherville. Lowtherville, which, with Upper Ventnor in your District, may be said to be continuous with Ventnor on the west, as Bonchurch is on the east, but the houses are small, and are intended for the residence of a labouring and artisan class employed in Ventnor. It is also supplied from the Ventnor Waterworks, but the water is badly stored in cisterns which are too small. The houses drain into cesspits which leak into the Chalk; and the pan closets have no flushing arrangements. The water supply, which should be constant, is insufficient, especially in summer.

The same remarks as to the water supply apply to Upper Upper Ventnor, on the southern slope of the Down, which is also Ventnor. supplied from Ventnor. The pan closets have to be flushed by hand. The sewer is not properly ventilated or flushed. Complaints have been made of smells from the Ventnor Mortuary, which is badly placed too near houses. There are three dairies near, and flies may readily contaminate the milk, assuming the poison of infectious disease is present in the mortuary.

In my annual report for 1890, when speaking of the state of Wroxall. Wroxall at the end of the year, I made reference to nuisances which almost disappear in the general clearing up which follows an outbreak of diphtheria, but which rapidly recur. In 1891, there was, unhappily, another outbreak of diphtheria at Wroxall, and the usual "clearing up" has followed. The

cottages in which the disease first appeared, were those damp, ruinous cottages, with an open dip well, into which the bedroom slops and soapsuds washed when it rained, situated at the top of Castle Lane, which I reported to you. I am happy to say these buildings have been rendered more fit for human habitation. I will not re-write the description of Wroxall I gave you a year ago, but will content myself with calling your particular attention to the drainage and water supply of Yarborough Terrace; and I will refer, once more, to the question of an independent water supply. Your efforts to obtain this, and you have spared neither time nor trouble to this end, have failed. Such a supply should be obtained from the hill behind Wroxall, but I have pointed out to you a spring, to the south and west, low down in the valley opposite Span, from which water may be raised by turbine or windmill pump, to a reservoir placed at sufficient height to supply the whole village with drinking water, at least.

St. Lawrence.

The scenic attractions and climatic reputation of the Undercliff, will ensure its becoming, more and more, a place of resort, and the projected railway through St. Lawrence to Ventnor, will stimulate building operations there. Your strictest supervision will be necessary, both as regards drainage, and water supply. In the absence of properly constructed sewers the houses must necessarily drain into cesspits, which you should insist upon being made tight; and all water for drinking should be obtained from the Greensand Cliff.

Whitwell.

Whitwell has its own abundant supply of pure Upper Greensand water, and one cannot but wish that all the villages in your District were equally blessed; but, owing to its non-porous clay soil, filth puisances exist there.

Southford.

The little hamlet of Southford, ought to be supplied independently with water from Whitwell, or from a spring on the spot, as the water of the well generally used there, is of doubtful quality.

Niton.

Nearly one fifth of the new houses erected in the East Medene, during the year, have been built at Niton. The rateable value of the parish of Niton must be increasing rapidly, and there should be less hesitation, therefore, in substituting water from the Upper Greensand hill, close by, for that of the surface wells and rainwater tanks generally used. This water is already brought into the village to provide a private supply to several houses. Niton proper practically drains into the stream, and filth and pig nuisances, although they still exist, are far less acute than formerly.

Godshill.

The attention given to Godshill, has resulted in a great and permanent improvement. A large number of closets have been reconstructed, and the filth nuisances which characterized the place a few years ago, have, to a great extent, disappeared. Water is obtained abundantly from shallow dip wells, sunk in the Greensand, in cultivated gardens. The thatched

stone houses, on the hill near the Church, have no water on the premises. The old public well, which received the Church-yard drainage, is, happily, no longer used. The inhabitants of these houses obtain their water from a deep well at some distance, and the labour of drawing and carrying it is very great. It was suggested to slate the roofs, in order that rainwater might be stored; but it seemed to me a pity to remove the thatch, and so destroy the pictures queness of these cottages, which are so attractive to visitors. I think it would be reasonable, however, to ask those who hold the property only during the life of the present owner, to provide a water cart.

The condition of Newchurch is unchanged. Gutter nuis-Newchurch.
ances recur there. It is badly supplied with water. Rainwater
may be better stored, and a deep well could be supply to the

may be better stored, and a deep well could be sunk to the south of the village, to replace that by the Churchyard wall,

which you very properly closed.

The surface dip wells, in porous soil, in the highly cultivat- Arreton, ed gardens of Arreton, are, of course, liable to pollution. I have already referred to the semipublic well at the west of the village, the closing of which you recommended, on account of its dangerous pollution, and to the independent supply provided by one of the landowners. Should this prove sufficient, which is doubtful, it may be made available for the whole of the village. It would have been more satisfactory, had the water been brought from the Upper Greensand, instead of from the foot of a hill formed by denudation.

The people of Blackwater obtain their drinking water from Blackwater. two sources; the first is a private well behind the blacksmith's shop, and the second is a dip hole near the railway station, into which water, brought in agricultural drain pipes from the gravel on St. George's Down, is discharged I am not aware at what depth these pipes are laid; but the water is abundant, and constant, and if properly protected, would constitute an excellent independent water supply for the place. The water

supply of houses in Sandy Lane is unsatisfactory.

The sanitary state of Haven Street is much better than it Haven Street. was four or five years ago, but, situated as it is upon the Hamstead Clay, filth nuisances are liable to recur. The wells, such as they are, are shallow surface wells, sunk in pockets of the clay filled with sand and gravel. Rainwater from the roofs is badly stored. The best water is found in the gravel and sand which caps the hill; and if a large well had been constructed there, and the water led from thence to a standpipe in the centre of the village, it would have been sufficient to provide the inhabitants with wholesome drinking water.

There are several wells still used at Haylands, the water of Haylands. which is not wholly satisfactory; but the owners of the houses to which they are attached are unwilling to avail themselves of the independent water supply from the Ryde waterworks, which is made use of by the majority of the inhabitants. Haylands

is sewered, but the secondary sewers at the backs of the houses are badly constructed—they are what is known as "brick-on-edge drains." You have completed the sewering of the place by a sewer carried under the hill, on the crest and slopes of which Haylands stands. The state of this sewer, as I have already pointed out, is most unsatisfactory.

Binstead.

Well sewered, and with an independent water supply, the sanitary state of Binstead, at the close of the year, contrasted most favourably with the Binstead of the past, which has for many years, been a source of so much trouble and anxiety to your Authority, The condition of the closets at the Parochial Schools, which has been brought to your notice from time to time, was more disgraceful than ever at the end of the year. Your Authority and your officers have always dealt very gently with these primary schools, throughout your District; but the managers should be informed the period of grace has expired, and that protection must be given to other interests, besides those of the voluntary principle. The Binstead Schools should be connected with the sewer, in accordance with your regulations; and, with an independent water supply, there can be no difficulty in making arrangements for flushing closets and urinals.

Fishbourne.

Fishbourne, with its irregular and insanitary sewers, and its public well of wholesome water, is in exactly the same condition as at the close of the previous year.

Wootton. The defectiv

The defective sanitation of the Wootton Day Schools, has been again reported to you. Where sewers exist, the Schools should be connected with them, a proper disconnecting chamber and ventilating shaft being provided; and the trough closet system should be adopted. This should be done at Wootton. There is a public water supply close at hand, and flushing arrangements should be adopted for the pan closets which are in use there. There is a sewer in the main road at Wootton, which it will be necessary to extend as building proceeds. There is another sewer in the Red Road, which discharges into an open water-course, near the Schools, and the contents, eventually, join those of the sewer in the New Road, and are carried to the Creek. Your Authority did not construct these sewers. The sewers at Wootton, as elsewhere, should be regularly flushed.

Fairlee.

Fairlee Road, outside the Borough of Newport, which is not sewered, is a continuation of Fairlee Road, within the Borough, which is sewered. The curtilage of some of the houses is too small for the disposal of slops even. There is a nuisance in the road gutter from the overflow of cesspits, and this nuisance has, undoubtedly, caused disease. Having no byelaws your Authority were helpless to protect public interests by controlling the erection of these houses, and yet you are bound, now, to find a way out of the difficulty in which your unwillingness to endow yourselves with sufficient power to

prevent the formation of sewers on private land, and the crowding of houses upon area, has placed you. The houses in the Fairlee Road have water laid on from the Newport town supply. West Medene

The state of Gurnard at the end of 1891 differed in no sense Gurnard. from its state in 1890. The water supply is derived from surface wells in the gravel and from rainwater tanks. It would be fortunate, in my opinion, if it could be endowed with an independent water supply but as that does not seem to be practicable at present, and must be always difficult, it is of the utmost importance to the health of the inhabitants and the prosperity of the place, that filth, especially from leaking cesspits, be not discharged into the subsoil. I should like to believe there are not many leaking cesspits in Gurnard.

The sanitary condition of Tinker's Lane has greatly im- Tinkers Lane proved since I first made its acquaintance, officially, more than eight years ago; but an independent water supply would be of greater sanitary value to it than all the improvements which have taken place during that time. Such an independent supply, from Ruffin's Copse, appears to be almost within reach; and it is to be hoped you may be able to add during the year 1892, the people of Gurnard to the list of little communities in your District, upon whom, one after another, the blessing

of pure water is being conferred.

Not far from Tinker's Lane, on the Newport road, are se- The "Horseveral houses without water fit to drink. In a meadow opposite shoe" district. the "Flower Pot," and close to the highway, is a surface well with a pump affixed, which is now useless. The well, at the present time uncovered, is not more than four or five feet deep probably, but I have not known it dry. The water is contaminated, but as the pollution is not serious, this well may be made available. It should be cleansed and properly reconstructed, by protecting with clay puddle and cement, and raising the head above the surface of the ground, and a good pump should be affixed. If there should be any difficulty, the supply being on private land, a well should be constructed by the roadside, if possible.

Those members of your Authority who once formed part of Horsebridge committees appointed to visit Horsebridge Hill to find a way Hill and Noke out of its sanitary difficulties, could bear testimony to the im- Common. mense improvement which has taken place there. The foul ditches and gutters have slowly disappeared; the damp houses have been spouted, and the inmates drink rainwater, stored after a fashion too general in your District, it is true, but infinitely better than that of the stagnant puddles and clay holes in their gardens. The only practical method of meeting the great dearth of water at Horsebridge Hill and Noke Common, is by continuing the Newport water main from Parkhurst Barracks. That this should be done quickly is of great importance, inasmuch as several new houses are about to be built there. The Newport Corporation are unwilling to undertake

the work of water supply, apparently because they are disappointed that the people of Gunville have not more generally availed themselves of the Corporation supply. It is, I believe, the experience of all water companies that a little patience is necessary, and that, in the end, it is found to be a very profitable investment to take pure water into districts where no wholesome supply exists.

Parkhurst Barracks and Prison.

Although Government Establishments, you cannot be indifferent to the sanitary state of Parkhurst Barracks and Prison. At the Barracks a much larger amount of Carisbrooke water is about to be used, negotiations being in progress with the Newport Authorities to that end. At both the Barracks and the Prison, and especially at the Prison, where many of the families of the Warders live on flats—three flats to a house, and two families on a flat, with a common staircase -there should be some means of isolating cases of infectious disease.

Porchfield and

During dry summers the water famine at Porchfield and Lock's Green was always most distressing. The inhabitants resorted to little pools in the beds of the stream, and to the polluted stream at Shalfleet at such times, and always they drank, more or less, from ditches and stagnant ponds. Now, nearly every house has its rainwater tank, the supply in which has hitherto proved sufficient. The filters, however, are not well attended to, and are not recharged often enough.

Newtown.

Newtown is very badly off for water. With the exception of a deep well at the Coast Guard Station, which is not generally available, Newtown may be said to be without water. A public well, such as that at the Coast Guard Station, would be of great benefit, as would be large rainwater tanks for the public use at the Church and the old Townhall.

Fivehouses.

Fivehouses is a collection of several cottages with thatched roofs, near Calbourne, which have no other water than that which can be collected in holes in the gardens. Rainwater is collected at one or two other cottages, which are slated. Quite close to Fivehouses, is the outcrop of the Bembridge Limestone, and it is probable, these, and other houses in the neighbourhood, could be supplied by means of a shallow well sunk into the Limestone, north of the outcrop.

Calbourne.

The improvement in Calbourne during the past few years is very marked. I have already referred to the Parochial Schools, once so insanitary, but which now are a credit to the Vicar and the village. Many of the old midden privies have been converted into pail closets, and cesspit overflows have been cut off from the stream. Calbourne is built over the Tertiary Beds just north of the junction with the Chalk. As a result, while the village itself is without water, abundance of the purest water is constantly bubbling from the rock at its southern boundary. At the northern boundary of the village there are one or two private surface wells, sunk in the deposit of gravel and sand which caps the hill above the clay. These

wells, rainwater tanks, the polluted public well in the middle of the village, and the stream, supply the village with water for household purposes, and, with the exception of the public well, to some extent for drinking; but a large number of the inhabitants very wisely send to a shallow well in the Chalk for their drinking water.

Newbridge between Calbourne and Shalfleet, is built on the Newbridge. summit and southern slope of a hill, at the foot of which the Calbourne stream runs on its way to Shalfleet and the sea. In the lower part of the village the people depend almost entirely upon the polluted stream for their water supply. On the top of the hill there are wells of what would be good water if they were properly protected. The Bembridge Limestone crops out halfway down the hill.

There are a few rainwater tanks in Shalfleet, but the stream Shalfleet.

which is largely polluted in its course, virtually supplies it

with drinking water.

Obviously, the very best source from which to obtain water for these three villages is the place where it issues pure, and in such great abundance, from the Chalk, at Calbourne. For the supply of Calbourne itself, it would be necessary to raise the water to a reservoir on the hill, at no great height. The power to do this may be obtained, either by means of a wind-mill pump, or by placing a turbine in the stream. For Newbridge, and Shalfleet, it may be led by gravitation from the shallow well, in which the water would be collected for pumping to the cistern or reservoir, for the supply of Calbourne. The cost of this scheme would amount, probably, to something like £2000. If a charge were made for this water, and the matter were properly managed, it is possible there would be income sufficient to provide for interest and sinking fund.

If the three villages were separately supplied, the above scheme could be carried out for Calbourne alone; or, a shallow well, or reservoir, domed over, could be formed by the roadside in Calbourne Bottom, and a pipe carried from it to a standpipe placed as far up the village as the level would admit, which would not be far, a branch pipe being carried to another standpipe in Winkle Street; or, the ancient public pump, removed at the beginning of the century, may be replaced, nearer the village than "Steet's" well; or a well may be sunk in the gravel, at the north of the village, and a pump affixed there. The first is by far the preferable plan; but, in any case, it will be unfortunate, if the water from the Chalk be not utilised for the public supply of Calbourne. At Newbridge, a well should be sunk to the Bembridge Limestone, at the top of the hill, from which the water would be pumped, by means of a windmill pump, to a reservoir at the surface; from this reservoir, a pipe would lead the water to a standpipe, by the roadside, on the hill, to another standpipe, half-way down the hill, and to a third staudpipe at the bottom of the hill, where it is most

needed. Or, water may be led from a well, or underground reservoir, formed as low down the hill, short of the outcrop of the Bembridge Limestone, as possible, to a standpipe at its base. Or, a well could be sunk, and a pump affixed simply. From a sanitary point of view, this would be the least desirable alternative. At Shalfleet, it would be necessary to dig a well 30ft, to 40ft, deep—on the slope of the hill, to the east of the village, there is a good site by the roadside-and then bore to the Bembridge Limestone; and affix a pump. It is, of course, quite impossible to obtain an independent water supply for one village, much less for three, without the expenditure of a certain amount of money, and if money is to be expended, it is always found, as regards water supplies, that the best scheme, although it may involve larger outlay at the moment, will prove cheapest in the end. In the case of rural water supplies, it would be fortunate, for the people of the locality, especially if it be a poor one, if the expense of providing water could be spread over the whole district of the Sanitary Authority.

Ningwood.

It is chiefly due to the Vicar of Shalfleet that the Parochial Schools, which are situated at Ningwood, have been put into a satisfactory sanitary condition. Water is scarce at Ningwood, and a pond and the stream are resorted to; but the inhabitants obtain their drinking water from the deep well at Ningwood House.

Wellow and Thorley.

The deep wells at Wellow and Thorley go the Bembridge Limestone, For those people who have not such wells the old well by the roadside at Wellow, which was reconstructed by order of your Authority, is available for water supply from the same source. Much good work in the abatement of filth nuisances has been done in this section of your District.

Yarmouth.

The sewers of Yarmouth, although no longer offensive as they were before the street gullies were trapped, and ventilating shafts were erected, ought to be flushed, more especially as they have little fall. The chief sanitary defect of Yarmouth at the present time, however, is the water supply derived from wells, some of which are no longer used for drinking, as they are obviously polluted. As soon as possible, Yarmouth should receive an independent supply from the Freshwater Waterworks. The closets of the Parochial Schools, which are insanitary, and which have been frequently reported to you, should be connected with the sewer. It would be absurd to adopt an earth system with all the labour which would be involved, when there are sewers to drain into. They have such a system at the Coast Guard Station, but it is doubted if the contents of the pails are always deposited upon the restricted garden ground, and the slop drains, which are sometimes offensive, are certainly discharged on to the foreshore. You have compelled the owners of properties which formerly drained on to the shore of the Estuary to connect with the sewer, and it is not right that the Schools and the Coast Guard Station

should continue to be privileged to drain that way. You have served orders to connect upon the School Managers and the Coast Guard Authorities, but the latter claim to be outside your jurisdiction, After a long period, new houses are being built at Yarmouth. 7 new houses were certified for occupation in 1889, 2 in 1890, and 5 last year. Byelaws are needed here.

The independent water supply has completely changed the Freshwater. sanitary aspect of Freshwater. It has become necessary to sewer the Freshwater Gate section of the parish, and now that water for flushing is available, you should consider the question forthwith. Half of the new houses erected in the West Medene during the past year were built at Freshwater.

operation of byelaws is badly needed here also.

The special drainage district of Totland Bay has been created Totland Bay as the contributory place for the provision of sewers to which I have referred. With an independent supply of water, and sewers, well planned and with provisions for flushing, Totland Bay will be the model place of your District, in a sanitary sense. To make it so was the ambition of one who did more than any other to bring it into being as a watering place, and whose energy moulded it, and brought it to its present stage of development. His activity has ceased, for he rests from his labours; Totland Bay has sustained a great loss, and the Isle of Wight misses one of its benefactors.

From Shepherd's Chine on the east almost to Compton Brooke, Chine on the west is a clay district, the Atherfield clay of the Hulverstone, Lower Greensand being at the surface, and water can be found and only in superficial deposits of gravel. The highway marks very roughly the northern boundary of the clay, beyond which, to the Down, are sandy beds of the Lower Greensand, containing much iron, sandrock and carstone. Above the carstone, as you ascend the hill, is the Gault Clay, then the Upper Greensand and the Chalk. The water which falls upon the Chalk percolates it and the Upper Greensand, where it accumulates, because it cannot get through the Gault. It breaks out above the Gault in springs which form the heads of streams. There is such a spring north of Brook, and water from it has been led into the village. Although there is no distinct spring either above Hulverstone or Limerstone, the Upper Greensand may be tapped and, probably, made to yield a spring which would supply them and places south of them.

Above Brighstone there is such a spring, the source of the Brighstone. stream which flows through the village, and from which, although seriously polluted, a large portion of the population drink. There are wells in the Lower Greensand, but the water containing, as it does, much iron, is exceedingly hard and is little used. There are a few wells, also, in superficial beds of gravel and sand. One of these on private land at the foot of Gagger or Hunny Hill, has supplied that part of Brighstone; but it was reconstructed last year and a pump was affixed to it,

Limerstone.

and your Authority called upon those persons who had not right of access to the pump, and who had gone to the stream when access was refused, to provide themselves with a wholesome supply. They have been permitted by the owner, however, to use the pump water again, the only possible wholesome supply obtainable being rainwater. The independent supply of Brighstone has long been contemplated, and the owner of the Upper Greensand spring, of which I have spoken, and who also owns the well, has been anxious to accomplish this, but difficulties have arisen with reference to private water rights These difficulties would be more readily surmounted, perhaps, if your Authority undertook the work, under sec. 51,

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Shorwell.

The south part of the village of Shorwell stands upon the Gault, and there the water of the stream is used by the people; the north part stands upon the Upper Greensand. In the Greensand part of the village is a pump, on a piece of waste land by the roadside. This pump draws water from a private well for the supply of adjacent cottages. The head of the stream is on private land. This is one of the strongest springs in the district, and it would be well if it could be used for water supply. at too low a level to permit of the water being led by gravitation for the general supply of the village, although it could be so led to a stand-pipe at the bridge, probably; and it could not well be pumped to a reservoir on the hill, as the spring being near to Northcourt House, the thud of a turbine would be disagreeable and a windmill unsightly. The turbine could, however, be placed much farther down the stream, the pump remaining near the source, or, a water wheel could be used to work a pump.

Blackgang and Chale.

Much of the sewage of Blackgang reaches the sea by way of Blackgang Chine, and much of the water is obtained from the Upper Greensand cliff. Chale is not well supplied with water. It may be collected from the head of one of the little rivulets issuing from the Greensand, and led into the place.

Chillerton and Gatcombe.

Chillerton and Gatcombe lie in valleys of the Upper Greensand, and have abundant water, but it is obtained from badly protected wells, in cultivated gardens, or from the streams which are so generally polluted throughout your District almost to their source. It would not be a difficult or very expensive matter to give both Chillerton and Gatcombe absolutely pure water, delivered from standpipes.

Gunville.

Gunville is one of the places in the Isle of Wight Rural Sanitary District in which improvement is most marked. Although the filth nuisances have largely disappeared, there are still some foul gutters. If the land behind a house is higher than the public roadway it is necessary to have a stormwater drain. This drain is not unfrequently made use of by the occupants for their slopwater and soapsuds, which decompose and become offensive in the gutter of the highway. Such gutter nuisances exist in Gunville, especially to the east of the highway, beyond

the railway as you go north. The watercourse in Gunville Back, is used as a receptacle for slops, by the occupants of some of the cottages there, although they have large gardens, the brick and pipe stormwater drains assisting, and in hot dry weather it becomes a nuisance. The great sanitary defect of Gunville, however, has been its poverty of water. This has been remedied, as I have already described, by affording Forest Side and Gunville an independent supply from the high level reservoir of the Newport Waterworks. Some disappointment has been occasioned because a smaller number of persons than was anticipated have availed themselves of this supply. But, in the event of a dry summer, it will be more generally used, as the surface wells become dry, and the water ceases to run in the ditch at Gunville Back.

gers resort than to any other place in the Isle of Wight, does not present a picture of successful sanitary administration, notwithstanding all the improvements you have effected there. It is seldom that the gutter, by the sidewalk of the highroad, is not running with black filth. At the commencement of this sidewalk, as you enter Carisbrooke from Newport, the gulley, into which this filth is discharged on its way to the stream, is usually horribly offensive. The stream is further polluted by the sewage of more than twenty houses, conveyed to it by three separate drains, which are sewers vested in your Authority. Most of the other houses drain into leaking cesspits and unused wells in the Chalk, and into the road gutter. The privies, which were placed over, or discharged directly into the stream, have been cut off from it by your order, and the only further remedy for the condition of things which obtains, is to construct proper sewers, and this you have decided to do. As the Corporation of Newport will carry a sewer up the Carisbrooke Road, to the boundary of your District in the Autumn, it is desirable that plans for the sewerage of Carisbrooke, which

of that town; and abundant water will be available for flushing. At the close of the year 1891, your District remained with- Byelaws. out the protection of byelaws. You have submitted to the Local Government Board, for their approval, two sets of byelaws, one set to apply to populous places, and the other set to apply to the whole of your District. Speaking broadly, you propose to regulate the construction of those new houses which are built in populous places only. It is difficult to understand why the construction of a new cottage, intended for the occupation of an agricultural labourer on one side of a boundary line, should be so regulated as to secure the health of that labourer and his family, and on the other side the boundary line, your Authority should have no power to protect

must connect with it, should be prepared forthwith. As the Waterworks of Newport are situated in Carisbrooke, the sewering of the village is of the first importance to the inhabitants

The important village of Carisbrooke, to which more stran- Carisbrooke.

the future occupants of a cottage, so far as they can be protected by regulating the construction of the cottage in which they are to live.

Regulations for private drains.

Your District is protected in a very important manner, in which it was not protected at the close of the previous year, by the regulations you have adopted for private drains. When it is proposed to build a new house, notice should be given to the Inspector—who acts as surveyor in your District—of the Medene in which the site of the proposed building is situated. and he should furnish the owner and builder with a copy of these regulations, and see that they are observed. No new

drain should be covered until it has been inspected.

Dairies.

Your District is unprotected by byelaws for dairies, but you have had printed, what are called suggestions, which are not compulsory, and which are almost identical with, or similar to the byelaws for dairies in force in other sanitary districts. Fortunately the law compels the registration of dairies and in this manner, the community are afforded some protection. At the close of the year, 151 dairies were registered in your District, of which, 84 are situated in the East Medene, and 67 in the West Medene. 9 dairies, not included in the above, have been discontinued during the year, 5 in the East Medene, and 4 in the West Medene.

Slaughterhouses.

Slaughterhouses are not registered, or specially regulated. The byelaws, above referred to, propose the registration and regulation of slaughterhouses.

Bakehouses.

Bakehouses are not registered or specially regulated. Your Committee are of opinion that they should be registered, and regularly inspected.

Scavenging.

No part of your District is scavenged under Sec. 42 P.H.A.,

Notification.

Its protection by notification benefits both your District and the whole of the Isle of Wight. Before notification, although, as I have stated, a large number of medical men notified to me, all did not do so, and it was impossible to prevent the spread of infectious disease from your District to the towns. In the course of the year I receive a large number of letters of enquiry respecting the Island, which come, not only from this country but from the Continent of Europe, and even from the Colonies Almost invariably the question is asked if noand America tification is in force. Whatever may be the opinion of individuals, I am happy to be able to state that notification is popular throughout your District.

Inspection.

Inspection is satisfactory only when it is systematic dwellinghouse, dairy, bakehouse, and slaughterhouse, in your District should be inspected at least once a year, and, if possible, once a quarter. One happens sometimes upon houses, in connection with notification, perhaps, more insanitary than a dwelling in your District, or in any other ought to be. I am aware the District is a very wide one for two Inspectors, and I

know your Inspectors do their duty to the best of their ability; but, although there has been great improvement since you appointed a committee to attend to the routine work of inspection, there is still too great delay, and the time of the Inspectors is too much occupied between your meetings, in dealing with individual nuisances. Should byelaws ever be in operation in your District, this delay will probably be obviated to some extent.

With a full sense of responsibility, and it is only one who occupies the position I have the honour to hold, who can realise the weight and anxiety of that responsibility in a district like yours, I have done my best in this report to follow the Order of the Local Government Board, which directs the medical officer of health in writing it, to concern himself chiefly about the conditions affecting health in his district, and with the means for improving those conditions; to consider these subjects with reference to the future as well as to the past; and in describing the sanitary state of the District generally at the end of the year, whilst marking the point which has been reached in its sanitary state and administration, to indicate directions for future consideration and action.

I have the honour to be, Gentlemen,

Your obedient Servant, J. GROVES.

Carisbrooke.

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