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COUNTY BOROUGH OF BOURNEMOUTH,
1904.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

WITH WHICH ARE INCLUDED THE REPORTS OF THE

BOROUGH BACTERIOLOGIST

AND

CHIEF SANITARY INSPECTOR,

ALSO THE REPORTS OF THE

PUBLIC ANALYST AND FOOD
INSPECTOR

Re Sale of Food and Drugs Acts.

BOURNEMOUTH
HOLLAND ROWBOTTOM, "GRAPHIC" OFFICE

COUNTY BOARD OF HEALTH
1904

ANNUAL REPORT

HEALTH OFFICE OF WASHINGTON

PHYSICIAN IN CHARGE

CHIEF SANITARY INSPECTOR

PHYSICIAN AND FOOD

INSPECTOR

Office of Food and Drug Administration

COUNTY BOROUGH OF BOURNEMOUTH.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH.

MEDICAL OFFICER OF HEALTH'S DEPARTMENT,
BOURNEMOUTH.

February, 1905.

TO THE MAYOR AND TOWN COUNCIL,
BOURNEMOUTH.

GENTLEMEN,

I have the honour to submit my ANNUAL REPORT on the health of the County Borough of Bournemouth for the year ending December 31st, 1904.

POPULATION.

I am of opinion that the population of the County Borough of Bournemouth is increasing at a more rapid rate than heretofore. Whilst, perhaps, this increase, not applying to the centre of the town, I think I should be right in believing that in the outlying districts this is certainly the fact. The ever increasing popularity of the town, combined with the very popular and excellent tramway service, which has been extended to all parts of the district, is in my opinion the cause of this steady increment of population.

The total number of houses in the Borough is 11,935, 270 of which only are void. If I make an estimate of $5\frac{1}{2}$ persons per house, which is a fair mean for the whole Borough, as indicated by the last census, and subtracting the 270 houses which were void, on these figures the population of 64,157 is indicated.

The Registrar General estimated in the middle of the year 1904 the population of the Borough as being 64,645, but, as in former years, for the purposes of statistical accuracy, I have preferred rather to diminish the probable estimate, thus making the death rates and birth rates more reliable.

For the purposes of this report I shall estimate my birth and death rates on a population of 64,000.

I append herewith a table showing the annual increase of new buildings erected for the past six years :—

Year.	Large Additions		Total.
	Houses.	Stables, Workshops, & other Buildings.	
1899	130	95	225
1900	174	97	271
1901	200	122	322
1902	294	99	393
1903	436	120	556
1904	440	106	546
	<hr/>	<hr/>	<hr/>
	1674	639	2313

ACREAGE.

The total acreage of the County Borough is 5,769 acres, and this gives us 11 persons per acre.

BIRTH RATE.

The total number of births registered within the County Borough area is as follows :—

Boys.	Girls.	Total.
529	572	1,101

The birth rate for the year for the whole District is 17·2 per 1,000.

Although the birth rate as indicated is considerably lower than the mean birth rate for the whole country of 28·3, I am of opinion that the birth rate in the outlying districts of Winton, Moordown, Pokesdown, and Malmesbury Park is fully up to the average of the general birth rate of England and Wales.

DEATH RATE.

The total number of deaths registered from all causes within the County Borough is 872, which, on a population of 64,000, gives a death rate of 13·62 per 1,000.

These deaths are made up as follows :—

Visitors.		Death Rate	4·06 per 1,000
260			
Residents.		Do.	9·56 per 1000
612			
<hr/>			
Total	872		13·62
	<hr/>		<hr/>

The deaths for the two classes for the past six years are as follows :—

	Before inclusion of Newly-added Districts.					
	1899	1900	1901	1902	1903	1904
Deaths of Visitors ...	216	189	183	206	196	260
Do. Residents	506	503	370	553	554	612
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Totals	722	692	553	759	750	872
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>

You will note there has been an increase of deaths amongst Visitors of 64, and amongst Residents of 58, thus the total increase of deaths over last year is 122.

As in previous years I herewith append a tabulated statement for the year 1904, showing the annual death rate per 1,000 from all causes, and from certain epidemic diseases. These may be contrasted with the returns from our own County Borough.

Annual rates per 1,000 living.

	Births.	Deaths from all causes.	Deaths from seven chief epidemic diseases.	Infant mortality. Annual death rate of Infants under one year per 1,000 Births.
England and Wales ...	27·9	16·2	1·94	146
Rural England and Wales ...	26·8	15·3	1·28	125
76 Great Towns ...	29·1	17·2	2·49	160
142 Smaller Towns ...	27·5	15·6	2·02	154
BOURNEMOUTH ...	17·2	13·62	·37	111

The undermentioned table shows the rate per 1,000 of the deaths due to various causes for the past four years :—

DISEASE.			1901	1902	1903	1904		
Small-pox	...	...	.02	.0	.0	.0
Measles	...	...	.0	.22	.0	.00
Scarlet Fever	...	...	.0	.0	.01	.00
Whooping Cough	...	...	.10	.17	.06	.0
Diphtheria and Membranous Croup	...	...	.21	.14	.09	.01
Croup	...	...	.0	.0	.0	.0
Fevers	{	Typhus0	.0	.0	
		Typhoid5	.01	.01	.0
		Other continued0	.0	.0	.0
Epidemic Influenza	...	...	.12	.12	.01	.0
Cholera	...	...	.0	.0	.0	.0
Plague	...	...	.0	.0	.0	.0
Diarrhœa	...	...	.32	.09	.09	.02
Enteritis	...	...	.15	.17	.01	.01
Puerperal Fever	...	...	.02	.03	.0	.0
Erysipelas	...	...	.04	.02	.01	.0
Other Sceptic Diseases	...	...	.0	.0	.0	.0
Phthisis	...	...	2.17	2.36	2.12	2.28
Other Tubercular Diseases	...	...	.12	.21	.41	.59
Cancer Malignant Disease	...	...	.54	.82	.76	1.12
Bronchitis	...	...	.95	.81	.53	.78
Pneumonia	...	...	.46	.73	.8	.78
Pleurisy	...	...	.0	.0	.06	.0
Other Diseases of Respiratory Organs	...	...	.4	.0	.01	.0
Alcoholism : Cirrhosis of Liver	...	...	.15	.12	.06	.01
Venereal Disease	...	...	.12	.0	.0	.00
Premature Birth	...	...	.32	.48	.52	.6
Diseases and Accidents of Parturition	...	...	.11	.02	.03	.0
Heart Disease	...	...	1.47	1.26	1.8	2.1
Accidents	...	...	.22	.27	.2	.23
Suicides	...	...	.02	.08	.06	.0
All Other Diseases	...	...	3.91	4.04	4.0	4.09

Death Rate per 1,000 at various ages for the past 10 years.

	Not including newly added Districts.									
	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904
Deaths under 1 year	2.21	2.0	1.6	1.6	2.6	1.47	1.68	1.94	1.5	1.92
Over 1 year and under 5	.91	.78	.94	.45	.7	.74	.34	.87	.66	.67
.. 5	15	.42	.48	.41	.38	.32	.44	.42	.35	.31
.. 15	25	1.23	1.2	1.1	1.01	.91	.91	.82	.84	.90
.. 25	65	4.93	5.6	4.56	5.1	5.01	5.05	5.42	4.77	5.15
.. 65 and upwards	3.10	2.4	2.58	2.78	3.34	2.86	3.00	3.54	3.31	3.81
Totals	12.9	12.4	11.1	11.3	12.8	11.47	11.68	12.29	11.83	13.56

In 1900 the total deaths under 1 year of age were	89	Not including newly added Districts.
„ 1901	79	
„ 1902	120	(whole district)
„ 1903	95	
„ 1904	123	

Of these 38 were of premature births, many only living a few minutes or days.

Number of suicides in 1900	...	2	} Not including newly added Districts.
„ 1901	...	3	
„ 1902	...	5	} Whole District.
„ 1903	...	4	
„ 1904	...	4	
Deaths from injuries in 1900	...	16	} Not including newly added Districts.
„ 1901	...	8	
„ 1902	...	17	} Whole District.
„ 1903	...	14	
„ 1904	...	15	

The deaths recorded in the public and charitable institutions of the town during the past six years were as follows:—

Name of Institution.	Persons belonging to District.						Persons not belonging to District.						Totals for year.					
	1899	1900	1901	1902	1903	1904	1899	1900	1901	1902	1903	1904	1899	1900	1901	1902	1903	1904
Sanitary Hospital ...	9	7	7	8	4	10	2	2	2	1	0	2	11	9	9	9	4	12
Sanatorium ...	1	0	0	0	0	0	3	5	5	0	2	2	4	5	5	0	2	2
Royal Victoria Hos- pital ...	13	15	16	10	23	14	23	30	21	12	12	22	36	45	37	22	35	36
Firs Home ...	3	3	1	2	2	1	13	10	10	19	9	13	16	13	11	21	11	20
Royal Boscombe and West Hants Hospital ...	5	12	5	12	9	20	1	3	7	2	6	8	6	15	12	14	15	28
St. Joseph's Home ...	0	2	0	0	1	2	3	3	6	2	3	3	3	5	6	2	4	5
Herbert Home ...	0	0	0	0	0	0	1	0	1	0	0	2	1	0	1	0	0	2
Hahnemann Home...	0	0	0	0	1	0	4	0	2	0	0	4	4	0	2	0	1	4
Springb'rne Orph'n'ge Home of Good Hope	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	1	1	1
House Beautiful Con- valescent Home	0	0	0	0	0	0	2	0	0	1	1	0	2	0	0	1	1	0
Victoria Home for Nurses ...	0	0	2	0	1	1	5	6	2	1	4	7	5	6	4	1	5	8
Cripples' Home Westbourne ...	0	0	0	0	0	0	2	0	0	0	1	0	2	0	0	0	1	0
*Sanatorium, Park- wood Road ...				0	0	0				5	7	3				5	7	3
*Convent of the Cross, Parkwood Road				0	0	0				1	1	0				1	1	0
*St. Luke's Home, Parkwood Road				0	0	0				1	0	2				1	0	2
Totals ...	31	39	31	33	42	48	59	59	56	45	46	86	90	98	87	78	88	134

*In newly added Districts.

Of the total number of deaths recorded during the past year, I note there were 181 deaths of persons at 70 years of age and upwards.

I herewith append a table showing the number of deaths of those over 70 years of age for the past six years at their respective ages :—

		(Old Borough Only.)					
		1899.	1900.	1901.	1902.	1903.	1904.
At 70 years of age		23	6	10	10	5	14
" 71	"	5	5	7	9	11	7
" 72	"	8	6	5	9	16	16
" 73	"	9	8	6	11	15	9
" 74	"	9	14	8	18	12	12
" 75	"	12	11	12	11	12	13
" 76	"	7	9	10	6	10	8
" 77	"	9	5	7	8	9	14
" 78	"	12	7	9	19	8	9
" 79	"	10	5	2	10	13	9
" 80	"	3	2	5	5	11	6
" 81	"	7	9	8	3	10	8
" 82	"	5	5	8	7	7	11
" 83	"	6	6	6	7	6	11
" 84	"	6	6	2	8	3	7
" 85	"	6	3	6	2	1	12
" 86	"	3	5	1	3	1	6
" 87	"	3	1	0	5	2	2
" 88	"	4	6	2	0	6	2
" 89	"	0	0	1	2	0	2
" 90	"	2	2	1	1	0	3
" 91	"	1	1	3	2	2	
" 92	"	0	0	1	1	0	
" 93	"	1	1	0	2	2	
" 94	"	0	0	0	1	0	
" 95	"	0	0	0	1	0	
" 96	"	0	0	1	0	1	
" 97	"	0	0	0	0	0	
" 98	"	0	0	0	0	0	
" 99	"	0	0	0	0	0	
" 100	"	0	0	0	0	0	
	Totals	153	123	121	161	169	181

The following table gives particulars of population, Births and Deaths, etc., for the past eleven years for the whole District :—

(No. 1 TABLE, L.G.B.)

Year.	Population estimated to Middle of each Year.	Births.		Total Deaths registered in the District.				Total Deaths in Public Institutions in District.	Deaths of Non-residents registered in the District.	Deaths of Residents registered in Public Institutions beyond District.	Net Deaths at all ages belonging to District.	
				Under 1 year of age.		At all Ages.					No.	Rate.*
		No.	Rate.*	No.	Rate per 1000 Births Registered.	No.	Rate.°						No.	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12	13
1894	42000	855	21.07	83	93.7	523	12.4	66	197	NO RECORDS.	325	7.7
1895	47000	810	17.02	104	128.3	603	12.7	59	150		453	9.6
1896	47000	775	16.5	94	121.2	597	12.6	68	214		503	8.1
1897	53008	729	13.7	89	122.0	599	11.3	78	180		419	7.9
1898	55288	713	13.0	91	127.3	630	11.6	84	238		392	7.0
1899	58480	754	13.0	120	159.1	722	12.3	99	216		506	8.6
1900	60104	724	12.4	89	122.9	692	11.5	98	189		503	8.3
1901	59625	1127	18.9	107	94.9	701	11.6	85	183		372	7.91
1902	61628	992	16.11	120	120.9	759	12.31	78	206		553	8.97
1903	63000	1111	17.6	95	85.5	750	11.92	90	196		554	8.79
Averages for Years 1894-1903.	54713	859	15.93	99	117.5	667	12.12	80	196		458	8.28
1904	64000	1101	17.2	123	111.7	872	13.62	134	260	612	9.56	

*Rates in columns 4, 8, and 13 calculated per 1,000 of estimated population.

The following table gives causes of and ages of all deaths during the year 1904 in the whole County Borough.

L.G.B. TABLE No. IV.

Causes of Death.		All ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	Total Deaths in public institutions in the district.
Small-pox	...	—	—	—	—	—	—	—	—
Measles	...	1	1	—	—	—	—	—	—
Scarlet fever	...	1	—	—	1	—	—	—	1
Whooping-cough	...	—	—	—	—	—	—	—	—
Diphtheria and membranous croup	...	7	—	2	4	—	1	—	7
Croup	...	1	—	1	—	—	—	—	—
Fever	{ Typhus	—	—	—	—	—	—	—	—
	{ Enteric	1	—	—	1	—	—	—	—
	{ Other continued	—	—	—	—	—	—	—	—
Epidemic influenza	...	1	—	—	—	—	1	—	—
Cholera	...	—	—	—	—	—	—	—	—
Plague	...	—	—	—	—	—	—	—	—
Diarrhœa	...	14	10	3	—	—	1	—	—
Enteritis	...	7	7	—	—	—	—	—	—
Puerperal fever	...	1	—	—	—	—	1	—	1
Erysipelas	...	4	—	1	—	—	3	—	2
Other septic diseases	...	2	—	—	—	—	2	—	—
Phthisis (Pulmonary Tuberculosis)	...	146	—	—	4	25	115	2	36
Other tubercular diseases	...	38	5	9	4	2	18	—	7
Cancer, malignant disease	...	72	1	—	—	—	37	34	7
Bronchitis	...	50	14	7	—	—	10	19	1
Pneumonia	...	50	11	8	3	2	15	11	11
Pleurisy	...	3	—	—	—	—	2	1	1
Other diseases of Respiratory organs	...	—	—	—	—	—	—	—	—
Alcoholism	}	12	—	—	—	—	12	—	1
Cirrhosis of liver									
Venereal diseases	...	1	1	—	—	—	—	—	—
Premature birth	...	38	37	1	—	—	—	—	—
Diseases and accidents of parturition	...	2	—	—	—	—	2	—	—
Heart diseases	...	139	5	—	4	5	61	64	13
Accidents	...	15	4	2	—	3	5	1	5
Suicides	...	4	—	—	—	1	2	1	—
All other causes	...	262	27	9	10	16	89	111	41
All causes	...	872	123	43	31	54	377	244	134

INFECTIOUS DISEASES.

ZYMOTIC DEATH RATE.

The total number of deaths due to notifiable disease for the past four years was as follows : —

Year.	Small-pox.	Diph.	Scarlet Fever.	Typhoid.	Ery.	Puer. Fever.	Total	Zymotic Rate per 1,000.
1901	1	10	0	5	1	1	18	·30
1902	0	9	0	1	2	3	15	·24
1903	0	6	1	1	1	0	9	·14
1904	0	7	1	1	4	1	14	·21

Under the Infectious Diseases Notification Act, 1889, the undermentioned cases have been notified during the past ten years in the Borough :—

	Old Borough Only.									
	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.
Scarlet Fever	97	89	105	64	254	115	54	50	111	84
Diphtheria ...	26	27	35	17	74	54	68	70	72	77
Enteric Fever	9	7	14	6	9	7	19	13	13	12
Variola ...	0	1	0	0	0	0	1	1	0	0
Erysipelas ..	7	20	13	10	33	39	18	28	29	28
Membranous Croup ...	0	0	1	0	0	4	0	0	0	1
Puerperal Fever	1	0	4	3	5	3	3	3	3	5
Continued Fever	1	0	1	0	0	0	0	0	0	0
Relapsing Fever	1	0	0	0	0	0	0	0	0	0
*Chicken Pox	Not notified.							*35	111	0
†Measles ...	do.							†95	56	
Totals	142	146	173	100	375	222	163	200	434	263

*Chicken Pox notified for six months ending June 30th, 1903, only.

†Measles will be notified for five years commencing April 1st 1903.

The following table will show the months of the past year in which these several cases were notified :—

Month Notified.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Variola.	Erysipelas.	Membranous Group.	Puerperal Fever.	Continued Fever.	Relapsing.	Measles.	TOTALS for each Month
January ...	8	6	0	0	3	0	1	0	0	1	19
February ...	5	3	0	0	2	0	0	0	0	2	12
March... ..	6	0	2	0	1	0	0	0	0	1	10
April	8	6	0	0	2	0	0	0	0	2	18
May	3	5	0	0	2	0	0	0	0	11	21
June	5	6	0	0	2	0	0	0	0	6	19
July	4	5	0	0	0	0	0	0	0	3	12
August	3	4	1	0	4	0	0	0	0	6	20
September ...	10	12	0	0	3	0	2	0	0	12	37
October	15	10	2	0	5	0	0	0	0	7	41
November	13	11	1	0	1	1	2	0	0	4	31
December	4	9	6	0	3	0	0	0	0	1	23
Totals	84	77	12	0	28	1	5	0	0	56	263

The following table will show the number of cases notified and treated in the Sanitary Hospital during the year, classified according to ages :—

Disease.	Cases notified in whole District. At Ages—Years.							No. of Cases re- moved to Isola- tion Hospital.
	At all Ages.	Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards	
Small-pox ...	—	—	—	—	—	—	—	—
Cholera ...	—	—	—	—	—	—	—	—
Diphtheria ...	77	—	21	38	9	9	—	65
Membranous Croup ...	1	—	1	—	—	—	—	1
Erysipelas ...	28	—	2	4	3	17	2	2
Scarlet Fever	84	—	25	48	8	3	—	77
Typhus Fever	—	—	—	—	—	—	—	—
Enteric Fever	12	—	—	1	4	6	1	9
Relapsing Fever	—	—	—	—	—	—	—	—
Continued Fever	—	—	—	—	—	—	—	—
Puerperal Fever	5	—	—	—	1	4	—	—
Plague ...	—	—	—	—	—	—	—	—
Measles ...	56	1	26	14	8	7	—	—
Totals	263	1	75	105	33	46	3	154

The following table will show the number of notified cases nursed at home or treated in the Isolation Hospital :—

Disease.	At all Ages.	Removed to San. Hosp.	Nursed at Home.	Total Deaths.	Died in Hos-pital.	Died at Home.
Small-pox	—	—	—	—	—	—
Cholera	—	—	—	—	—	—
Diphtheria	77	65	12	7	7	0
Membranous Croup	1	1	—	1	—	1
Erysipelas	28	2	26	4	1	3
Scarlet Fever	84	77	7	1	1	—
Enteric Fever	12	9	3	1	—	1
Relapsing Fever	—	—	—	—	—	—
Continued Fever	—	—	—	—	—	—
Puerperal Fever	5	—	5	1	—	1
Plague	—	—	—	—	—	—
Measles	56	—	56	1	—	1
Totals	263	154	109	16	9	7

MEASLES.

Measles has been a notifiable disease in the Borough for a period of 20 months. During the year 1904 we had only 54 cases notified, against 95 cases for a period of eight months in 1903. There has been only one death due to this disease during the year, and it is presumable that parents are beginning to recognise that care of the child in the early and later stages of this disease is important. It is only by this parental care that the mortality from this disease can be greatly reduced throughout the country.

Every case notified has been treated at home, and a copy of printed suggestions (*re* sanitary precautions and nursing) issued through the Authority left at each house. Other children living in the same household have been prevented from attending school.

CHICKEN POX.

The period for which Chicken-pox was notified is now expired. I am of opinion that the notification of this disease is hardly necessary.

SCARLET FEVER.

There has been 84 cases of Scarlet Fever notified. As stated in former years, the great majority of these cases are of an exceedingly mild type and with difficulty recognised. This mildness of type has continued through the year 1904. Medical notifiers have had at times a considerable difficulty in being able to determine the exact nature of this disease, and I have on several occasions been asked to give my opinion on the nature of the case. In no period of the year has this disease been excessive.

Since the Public Schools have come under Municipal control, I am of opinion that there has been more care taken by the teachers and managers of the several schools. No school has been closed during the year in consequence of this disease.

DIPHThERIA.

The number of cases notified as Diphtheria are 77, five more than last year. This disease has on the whole been of a slight nature, and the clinical evidences were not well marked; it is only by bacteriological examinations that the disease has been accurately diagnosed. Of the 77 cases, 65 have been isolated in the Hospital. The deaths from this disease during the year totalled 7; one of these died at home. In the several cases the death occurred within a few hours after removal. This, I think, might have been prevented if an earlier recognition had been made.

At the end of the year your Council having been requested by some members of the medical profession to adopt a free system of bacteriological examination to be used only in cases of those who are too poor to pay the fee: this matter having been determined on only during the latter portion of the year, I am unable to say how it will work, but on the whole I think it may be a distinct sanitary advantage to the Borough.

ENTERIC FEVER.

12 cases of Enteric Fever have been notified in the Borough during the past year.

The particulars connected with each case are as follows :—

Date Notified.	Name.	Age.	Locality.	Probable Cause.
Mar. 10.	M. K.	19	Boscombe East Ward.	Imported from Southampton.
Mar. 29.	F. B.	5	Malmesbury Park Ward.	Imported from Forest Gate, London.
Aug. 19.	K. R.	26	East Cliff Ward.	A domestic servant, cause unknown.
Aug. 29.	J. G.	24	Malmesbury Park Ward.	Shop Assistant, imported from Plymouth.
Oct. 20.	J. R.	23	Central Ward.	Probably an imported case from Plymouth.
Oct. 28.	M. P.	75	Boscombe East Ward.	Imported case from a country Vicarage in Kent, where the purity of water supply and sanitary defects were not above suspicion.
Nov. 16.	L. S.	33	Boscombe West Ward.	Some slight insanitary conditions found at the dwelling house, but not sufficient in my opinion to account for the disease.
Dec. 8.	R. G.	23	Boscombe East Ward.	This was an acute case, and to no other cause than oysters obtained from a Poole hawker could this case be attributed to.
Dec. 9.	M. H.	50	Central Ward.	This patient had obtained oysters from dealers from Poole.
Dec. 17.	G. W.	31	Central Ward.	Probably caused by exposure to sewer air during drainage alterations at the dwelling house.
Dec. 22.	C. C.	55	Boscombe East Ward.	This patient had eaten oysters from a dealer from Poole.
Dec. 23.	S. P.	47	do.	do.

Of these cases 9 were removed and treated in the Sanitary Hospital, and all made a good recovery. One case died at home, certified as from this disease, but no notification was received ; 5 of the cases were imported from distant places.

Four were, in my opinion, caused by the eating of oysters.

Two were probably caused by defective and insanitary conditions ; of these only 1 in the district.

SANITARY HOSPITAL.

During the past year 220 patients have been admitted into the Sanitary Hospital, and of these 12 died.

The following table gives a summary of the patients and diseases treated in the Hospital from the year of its establishment in 1886 to the present time, and in Tables II., III. and IV. I show the cost of patients and staff during the past 5 years, as well as a statement of Stock and Loans relating to the land and buildings connected with the Hospital.

Table showing Number of Cases Treated in the Sanitary Hospital since its establishment in 1886.

Year.	Estimated Population.	Scarlet Fever.	Diphtheria.	Typhoid	Variola.	Other Cases.	No. of cases in Quarantine Cottages.	Deaths.	Total of all cases received in Hospital.	(Giving a Death Rate p.c. of all cases admitted.)	Remarks.
1886	27,000	21	1		15	8		1 Variola	45	2.22	Hospital established this year. One Pavilion and Administrative Block, and a "Lyons" steam Disinfecter.
1887	32,025	19	4	1		11		1 Typhoid.	35	2.85	
1888	33,025	9	5	1		12		1 Diph.	27	3.70	Quarantine Cottages Purchased.
1889	36,376	10	2	1		8			21		
1890	37,320	3	7	1		6		1 Typhoid.	17	5.88	Notification of Infectious Diseases Act adopted.
1891	37,781	35	6	5		6		1 S.F., 1 Typ., 1 Diph.	52	5.77	
1892	40,000	76	10	4		9		1 Diph.	99	2.02	
1893	42,000	257	5	5	4	13	19	3 S.F., 1 Var., 1 Diph.	284	1.76	Bournemouth Improvement Act passed. Iron Pavilion erected (8 beds.)
1894	42,000	106	8	3	14	13	22	1 Variola	144	1.38	S.F. very prevalent all over the country. Three Berthon Huts purchased (9 beds). Variola outbreak in the Springbourne Ward. Three of these 14 cases lived outside the Borough, but were caused by cases in our District.
1895	47,000	92	15	5		6	10	4 S.F.	118	5.93	
1896	50,000	89	22	8	1	17	6	3 Diph., 2 Diph. 1 Ty., 1 S.F., 1 Brain	137	3.65	New Pavilion opened, giving additional 26 beds.
1897	53,068	104	27	6		13		5 S.F., 2 Diph	150	4.9	New oak floors provided to old block, with additional bath and improved system of heating.
1898	55,000	78	22	7		16		1 Pneu.	123	1.75	Berthon Huts re-painted.
1899	58,480	271	77	4		12		1 Dip. impd., 11 Deaths (see report)	364	2.8	
1900	60,104	115	58	1		7		7 Deaths.	181	3.8	In addition, 41 cases were treated in the Hospital admitted from Urban District of Pokesdown (36 S.F. and 5 Dip.).
1901	59,625	75	64	16	1	9	4	7 Diph., 3 En., 1 Variola.	167	6.5	In addition, 23 cases were admitted from the Urban District of Pokesdown (11 S.F. and 11 Dip., 1 Enteric). Including cases from added Districts.
1902	61,628	61	72	9	1	35	9	6 Diph., 1 Ery., 1 Heart.	187	4.6	Ditto. Old Pavilion painted.
1903	63,000	122	70	7		21		1 Pneu., 4 Diph.	220	1.8	New Observation Wards being erected, also large additions to administration block, 10 cases of Diph. and 1 S.F. were admitted from District of Mudeford.
1904	64,000	95	85	12		27	1	6 Dip., 1 S.F., 1 Ery., 3 Pneu., 1 Phth.	220	5.4	Observation Wards completed and used. Administrative block. Alterations completed, grounds re-modelled and altered.

Sanitary Hospital. Expenditure, &c., for years 1900, 1901, 1902, 1903, 1904.

Month.	Total Expenditure, including Repairs, Wages, &c.				Expenditure on Provisions only.				Daily Average No. of Persons per Month.				Average Cost per head per Day.					
	1900.	1901.	1902.	1903.	1904.	1900.	1901.	1902.	1903.	1904.	1900.	1901.	1902.	1903.	1904.			
JANUARY ..	£ s. d. 225 0 7	£ s. d. 211 12 3	£ s. d. 216 19 9	£ s. d. 140 4 3	£ s. d. 196 18 2	£ s. d. 87 8 0	£ s. d. 57 0 6	£ s. d. 55 5 3	£ s. d. 42 5 8	£ s. d. 62 5 2	63.0	36.8	34.6	37.0	50.7	£ s. d. 2 4 3	£ s. d. 8½ 4 0½	£ s. d. 2 5½ 2 6
FEBRUARY	226 2 0	185 5 1	197 11 5	306 3 10	189 12 2	59 1 1	45 11 0	59 19 7	37 10 2	60 1 8	47.32	36.78	35.5	36.0	35.47	3 3½ 3	6½ 3 11	6 1 3 8
MARCH ..	195 16 4	158 4 2	177 17 3	205 15 1	171 6 6	58 17 5	56 6 2	42 13 1	56 9 7	51 12 7	45.0	33.74	32.0	32.22	33.3	2 9½ 3	0½ 3 7	4 1 3 4
APRIL ..	223 7 10	173 17 7	151 16 11	204 3 0	198 2 4	71 13 0	37 12 1	45 0 4	33 18 7	47 17 11	56.6	24.03	28.5	30.86	32.39	2 7½ 4	8 3 6½	6 4 4 1
MAY ..	225 1 0	145 18 6	211 17 8	201 5 7	190 13 0	71 1 4	46 5 5	41 2 7	35 5 2	45 10 8	50.38	29.96	29.7	31.13	31.12	2 10½ 3	1½ 4 7	4 2 3 11½
JUNE ..	142 6 11	151 4 4	196 5 8	182 19 1	217 7 7	40 10 9	44 7 5	37 1 4	33 15 2	42 7 7	34.3	26.1	32.3	30.8	26.32	2 9½ 4	4½ 4 0½	3 10½ 5 6
JULY & AUGUST }	351 3 9	352 10 5	182 6 9	159 18 8	434 19 9	69 18 7	79 19 9	39 18 7	35 5 9	78 0 8	26.6	24.46	{ 23.7 { 24.0	35.26	{ 28.48 { 35.58	4 2½ 4	7½ 4 5	2 11½ 4 3½
SEPTEMBER	136 0 2	136 18 2	162 5 7	160 5 10	77 3 8	44 4 4	48 18 5	46 12 10	29 18 9	44 12 0	24.4	24.93	22.2	44.74	39.16	3 8½ 3	8 4 4½	2 3½ 1 3½
OCTOBER ..	335 7 3	165 17 4	341 7 11	265 8 5	151 8 4	80 14 6	52 6 0	62 5 10	73 2 2	46 2 9	27.6	41.03	26.1	47.2	60.5	3 11½	2 8 4	7½ 3 7 1 7½
NOVEMBER	191 3 2	164 8 8	114 4 3	164 10 8	227 12 5	55 5 3	26 11 8	37 0 8	37 0 8	56 4 8	35.0	47.36	36.2	41.5	71.46	2 3½ 2	3½ 2 1½	2 7½ 2 1½
DECEMBER	225 1 9	216 17 4	170 14 2	166 2 4	211 1 7	55 17 6	59 19 7	40 16 6	39 13 9	66 0 11	35.0	40.06	38.8	53.3	53.48	3 6½ 3	6 2 10	1 11½ 2 6½
TOTALS	2062 13 10	2103 7 4	2246 16 9	2266 5 6	639 6 6	583 11 7	497 7 7	454 5 5	600 16 7	600 16 7	Amount paid by Patients to Borough Treasurer.	£ 687	s. 13	d. 1	£ 1553	s. 15	d. 11	Total Expenditure for the year after deducting receipts from Patients.

Comparative Statement for 5 Years.

YEAR.	Average Number of persons, inclusive of Staff in Hospital per day.		Total average cost per person per day, which includes all administrative expenses.		Average cost per person per day for provisions alone, including stimulants.		Amount paid by Patients to Borough Treasurer.		Total Expenditure for the year after deducting receipts from Patients.			
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.		
1900	38.67	24	3	24	10½	10	687	13	1	1553	15	11
1901	32.6	5½	3	5½	11½	11	731	0	6	1330	13	4
1902	30.32	9½	3	9½	10½	10	225	13	7	1877	13	9
1903	38.97	1	3	1	7½	7	327	13	9	1919	3	0
1904	41.9	11½	2	11½	8½	8	292	3	8	1974	1	10

No. 4.

Statement of Stock and Loans relating to Lands and Buildings in connection with
the Sanitary Hospital, 31st March, 1904.

Amount originally sanctioned.	Amount originally borrowed.		Amount unredeemed at commencement of the year.	Amount redeemed during the year.	Amount outstanding at the end of the year.	Amount in Redemption Fund.	Net Debt.	To whom owing.
	Stock.	Loans.						
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
1400 0 0	1395 6 8		1076 6 6	138 12 2	937 14 4	3 10 10	934 3 6	Stockholders
2717 8 0	2708 12 7		2060 8 0	265 0 7	1795 7 5	6 15 10	1788 11 7	"
610 13 8	608 9 0		435 9 5	70 0 0	365 9 5	1 5 1	364 4 4	"
1100 11 0	1097 0 1		851 5 6	96 6 1	754 19 5	2 11 7	752 7 10	"
4116 0 0	4004 9 9		3438 0 5	385 13 10	3052 6 7	9 2 1	3043 4 6	"
624 0 0	607 2 7		547 5 0	66 9 7	480 15 5	1 8 3	479 7 2	"
160 0 0		160 0 0	137 1 4	1 19 4	135 2 0		135 2 0	Ancient Order of Forester's Society
10728 12 8	10421 0 8	160 0 0	8545 16 2	1024 1 7	7521 14 7	24 13 8	7497 0 11	
	£10581 0 8							

CREMATORIUM.

I regret that your Council have not as yet availed themselves of the Act of Parliament in respect to the establishment of a Crematorium for the proper disposal of the dead. I still live in the hope that in the near future this important sanitary provision will not be overlooked. The educating of public opinion in this direction is proceeding apace, and it is as well to be abreast of the times. In a town like ours a niche in the local archives is waiting to be filled up; will any member of your Council try to be worthy of it, and promote this great sanitary work? In future ages he will be hailed as a worthy hygienic reformer.

WATER SUPPLY.

The public water supply to the Borough is supplied by the Gas & Water Company, and is obtained mainly from the new well sunk in the chalk and situated to the north-west of Wimborne. A portion of this supply, however, comes from the water-bearing strata just to the north of the river Stour. This supply, whilst offering a sufficiency in quantity, is perhaps not so pure bacteriologically as that obtained from the well sunk in the chalk. I think it not unlikely that in the near future the Water Company will see that it is to their interest as well as to that of the town that this source of supply will gradually be superseded by that from the well at Wimborne.

The filtration beds at Alderney Manor are all that can be desired, and every care which skilful management and long experience gives is efficiently carried out. The public water supply from this company is well aerated and filtered.

During the past year some members of your Sanitary Committee passed a resolution availing themselves of a clause in the original agreement with the Water Company, and requested the Company to soften the supply.

As I had never in my experience as Medical Officer of Health, a period now over 30 years, thought the water was unduly hard, I did not advise or initiate this course. With a temporary hardness of only 16 to 17 degrees, and a permanent hardness of only 3 to 4 degrees, I did not think it necessary. It may or it may not result in a gain hygienically or dietetically. The Council voted in a majority on this matter, and the Water Company are now fixing the necessary plant to effect this process.

Only a very small portion of the extreme eastern district of the Borough is supplied by the West Hants Water Company. In respect to this supply I think there is room for an improvement, and I believe the directors of that Company will use every effort to secure for that portion of the County Borough that perfection of purity which is so all important.

FACTORIES AND WORKSHOPS ACT, 1901.

The following is a report on the working of the above Act. For further details see the Sanitary Inspector's Report which is herewith appended.

Factories, Workshops, Laundries, Workplaces and Homework.

I.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Inspections.	Number of Written Notices.	Prosecu- tions.
Factories (including Factory Laundries)	25	7	—
Workshops (including Workshop „	1186	138	—
Workplaces	75	3	—
Homeworkers' Premises	260	3	—
Total	1546	151	—

2.—DEFECTS FOUND.

Particulars.	Found.	Number of Defects.		No. of Prosecutions.
		Remedied.	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts :—</i>				
Want of cleanliness ...	26	26	—	—
Want of ventilation ...	13	13	—	—
Overcrowding ...	1	1	—	—
Want of drainage of floors ...	2	2	—	—
Other nuisances ...	18	18	—	—
Sanitary accommodations—				
Insufficient ...	2	2	—	—
Unsuitable or defective	36	36	—	—
Not separate for sexes ...	—	—	—	—
<i>Offences under the Factory and Workshop Act :—</i>				
Illegal occupation of underground bakehouse (s. 101) ...	—	—	—	—
Breach of special sanitary requirements for bakehouses (ss. 97 to 100) ...	—	—	—	—
Failure as regard lists of outworkers (s. 107) ...	—	—	—	—
Giving out work to be done in premises which are—				
Unwholesome (s. 108) ...	—	—	—	—
Infected (s. 110) ...	—	—	—	—
Allowing wearing apparel to be made in premises infected by scarlet fever or smallpox (s. 109)	—	—	—	—
Other offences ...	—	—	—	—
Total ...	98	98	—	—

3.—OTHER MATTERS.

Class.	Number
<i>Matters notified to H.M. Inspectors of Factories :—</i>	
Failure to affix Abstract of the Factory and Workshop Act (s. 133) ...	32
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Act (s. 5)—	
Notified by H.M. Inspector ...	
Reports (of action taken) sent to H.M. Inspectors ...	7
Other ...	—
<i>Underground Bakehouses (s. 101) :—</i>	
In use during 1903 ...	12
Certificates granted { in 1903 ...	4
{ in 1904 ...	2
In use at the end of 1904 ...	6

		Number of Lists. Outworkers.	
<i>Homework—</i>			
Lists of Outworkers (s. 107):—			
Lists received	...	55	278
Addresses of outworkers—			
Forwarded to other Authorities	...	28	—
Received from other Authorities	...	—	—
		Wearing Apparel.	Other.
<i>Homework in unwholesome or infected premises:—</i>			
Notices prohibiting homework in unwholesome premises (s. 108)	...	—	—
Cases of infectious disease notified in homeworkers' premises	...	2	—
Orders prohibiting homework in Infected premises (s. 110)	...	1	*

*In the other case the patient was removed to the Hospital, the house disinfected, the work was done in a special workroom, to which the patient (a child of four years) had no access.

The total number of premises registered numbers 476, which comprises 652 workrooms. Eighty-four new workshops have been added to the register during the past year.

FOOD SUPPLIES.

SALE OF FOOD AND DRUGS ACT, 1875—1899.

The work of regularly and frequently inspecting the food supplies of the Borough, taking samples under the Food and Drugs Acts, and supervising the Dairies, Cowsheds, and Milkshops, is in the hands of Mr. Christie.

Throughout the year a total of 2,052 lbs. of various meats and a box of 300 eggs were seized and destroyed as unsound, diseased and unfit for sale as food. The most serious seizures were those of two carcasses of beef exposed for sale in butchers' shops, both of which showed distinct evidences of tubercular infection.

Under the Food and Drugs Acts 300 samples were procured and submitted to the Public Analyst for analysis. Of this number 207 were reported genuine, 43 as of poor or doubtful quality, and 50 as adulterated or deficient.

In September, owing to a sudden death after having eaten some sausages, and in which case the coroner's jury brought in a verdict of ptomaine poisoning, two samples of sausages were sent to the Public Analyst,

one sample being cooked and part of the lb. of sausages of which the deceased had eaten part and the other sample being fresh sausages of the same make and purchased from the same shop. The Analyst reported on both samples as follows :—

“ Minute traces of an alkaloidal substance were
 “ detected, but the quantity was far too small to
 “ admit of its identification, and, indeed, was so
 “ small as to render it very improbable that this
 “ was the cause of death. The samples were also
 “ examined for copper, arsenic and other metallic
 “ substances, but in each case with negative results.”

COLOURING MATTERS AND PRESERVATIVES IN FOODS.

FROM THE FOOD AND DRUG INSPECTOR'S Report it will be seen that 35 or 64·8 per cent. of the samples of milk purchased in the Borough were artificially coloured to give the milk a richer appearance. This is a custom carried on by milk retailers only, and which I have repeatedly condemned. The milk retailers, however, are not the only ones to blame for this custom, for I am aware that many of their customers, if supplied with milk of a natural colour, would complain that it was not “as creamy” as it should be. Annatto colouring matter, however harmless as it may be when added in small quantities to milk, is absolutely unnecessary. Traces of colouring matter of an analine nature were found in three samples of Demerara sugar and 8 samples of Lemonade Crystals, while out of 16 samples of tinned and bottled preserved peas, no less than 14 were found to contain sulphate of copper in amounts ranging from $1\frac{1}{20}$ grain up to $3\frac{1}{2}$ grains per lb. This dangerous metallic salt is added to the peas to preserve their natural green colour, and in 9 cases in which the sulphate of copper exceeded 2 grains per lb. legal proceedings were taken against the vendors. Salicylic acid added as a preservative was found in only one sample—that of a cheap port wine.

Preservatives.

For the first time for several years all the samples of milk analysed have been found free from preservatives.

Five out of 32 samples of butter purchased were found to contain boric acid in amounts under the 0.5 per cent. allowed, and six samples out of seven of potted meats had boric acid, four of them slightly in excess of 0.5 per cent.

Metals in Food.

One sample of baking powder was found to contain 3-10th grs. of lead per lb., and six samples of lemonade crystals also contained lead in quantities from 0.02 grs. to 0.16 grs. per lb.

Bacteriological Examinations of Milk.

Fifty samples of milk were submitted by the Food Inspector to Mr. Tanner, the Borough Bacteriologist, for microscopic examination, with the specific view of detecting whether any bacilli tuberculosis were present. All the fifty samples were reported to be free from disease germs, although several were looked upon with great suspicion owing to the presence of pus cells in three samples and blood corpuscles in four samples. The 50 samples were also examined by Mr. Tanner for excess of cellular elements, bacteria or presence of foreign matter, &c., the results showing that 24 samples were more or less of a dirty nature, containing an excess of cellular elements, bacteria and foreign matter (manure or dirt), and 26 were comparatively clean samples.

Most of the samples reported on adversely were of milk which had been conveyed by train from country districts, and considering that at most, if not at all dairy farms, the milk is generally filtered through a cloth and cooled before despatch, the only deduction to be drawn is that satisfactory methods are not employed in the housing of cows and cleanliness of the premises, or proper precautions against contamination are not taken whilst milking or handling the milk before despatch.

In 1903, when the new dairy regulations were under your Authorities' consideration, the local Dairy-men's Association suggested that your Authority should endeavour to secure the co-operation of the Rural Authorities in adopting regulations similar to those now in force in Bournemouth, and thus secure a more efficient inspection and supervision by the sanitary officers of the dairy farms in those rural districts.

Until such regulations are adopted and put into force by the Rural Authorities and their officers such causes of complaint will occur, for I am sure no improvement will be made at those dairy farms which require sanitary renovation or improvement until formal action be taken by the local Authority, or until some means be taken to educate cowmen or those responsible in all the precautions necessary to be taken to ensure a clean, pure milk being supplied to the consumer.

The action taken by Mr. Christie, the Food Inspector, on the samples reported on adversely was as follows :—

Farmers visited and warned	...	9
Letters of warning sent	...	7
Copies of report sent	...	5
Vendor to deal with consignor	...	3

ICE CREAM.

The places where ice cream is made on a large scale, principally for sale on barrows, have been periodically inspected by the Food Inspector during the season, and at one place alterations were carried out to ensure the article being made amid better sanitary surroundings.

Six samples of ice cream purchased in the Borough were submitted to the Bacteriologist for examination, and his reports show that in 4 samples micro-organisms were present in excess. Strange to say, the worst samples were obtained from shops where no visible fault could be found in regard to cleanliness or sanitary surroundings.

It must therefore be assumed that the excessive number of micro-organisms found was due to a state o

putrefaction, probably brought about through some negligence during process of manufacture or sale ; to the ice cream being allowed to thaw, and then re-frozen ; to the use of contaminated glasses or ladles ; or through stale ice cream being mixed up with the fresh article.

I would advocate very strongly that all ice cream vendors should use thin wafers to serve ice cream in, and thus do away with the old-fashioned glass, which, if used, is bound to be contaminated after being licked out, and which will also contaminate the ladle, and thus the ice cream, if, as often happens, the vendor is asked to re-fill the glass for the purchaser.

DAIRIES, COWSHEDS & MILKSHOPS ORDERS.

There are now 189 premises registered for the sale of milk within the Borough.

Inspections have been regularly made by the Inspector to all the Cowsheds and Dairies, and the Regulations relating to cleanliness, lime-washing, and sanitation enforced.

From the Inspector's report it will be seen that a considerable amount of necessary work and alteration to the premises has been carried out at the instigation of the Inspector.

The new Dairy and Cowshed Regulations, drafted and submitted to your Authority during 1903, having been passed by H.M. Privy Council, came into force on the 1st day of March, 1904, and since then have proved of great service to the Inspector in his duties, relating to the carrying out of necessary alterations at those Cowsheds and Dairies where proper provision for housing of cattle, storage of milk, drainage, lighting and ventilation, &c., were not in accordance with the regulations.

Full particulars as to the works carried out by the Food Inspector, under the Dairies and Cowsheds Orders and the Sale of Food and Drugs Acts, will be found in the Reports herewith appended.

DRAINAGE WORKS, 1904.

The sewers generally have been kept up to the high standard hitherto maintained, any defect which has shown itself having been immediately rectified.

A new sewer has been laid down, Foxholes Road, Southbourne, thus completing the drainage of that District.

The main outfall has been brought up from Pokesdown to Winton, and the whole of the Public Roads of that District south of Calvin Road drained. The work of connecting the house drains in these roads is now being quickly completed.

The Richmond Park, Richmond Wood, and Charminster Roads have also been sewered and connected to the Winton outfall.

Public sewerage works in so progressive and rapidly growing a town as is the County Borough of Bournemouth requires a never-ending care and constant supervision, but it is only by the very highest standard of excellence in the system that we can hope to continue to maintain our sanitary reputation. It is but rarely that we receive any complaints of the road gullies and catchpits, this in my judgment is mainly due to the perfection in construction of these gullies. Ever since we have adopted the patent double water trapped Westminster gulley this source of danger to the public health has been controlled.

(a) Well constructed sewers,
 (b) Abundant facilities for flushing,
 (c) Frequent adoption of high vent shafts,
 (d) And perfection in road gullies are the main factors to be striven for in respect to a satisfactory public drainage system.

WINTON DISTRICT.

During the past year rapid strides have been made with the new sewers in the Winton District, and the main outfall joining on to the Pokesdown outfall was completed in October. Since that time branch sewers have been constructed in all the roads which were taken

over as public roads when this District was incorporated with the County Borough, numbering 20. From the 1st November to the end of the year 66 house drains were connected up to the sewers, and the old cesspools abolished and filled up. At the time of writing this Report over 250 Owners have now connected their premises to the new sewers. This is very satisfactory, when we consider that the Owners are chiefly working people who own and occupy their premises, and also have without formal action being taken seen the necessity of putting their premises in a sanitary condition. In all instances has it been necessary to construct new drains entirely, as the cesspools were found to be situated in the rear of the premises, whilst the sewer has been in the front.

BOURNEMOUTH AND ITS PINE TREES.

In the year 1879 I wrote the following paragraph in my Annual Report for that year :—

“ I observe that during the past few years there has been a great tendency to cut down the pine trees. If this continues to as great an extent as it has done, and if the owners of the land neglect to plant younger trees of a similar kind, the town will in time lose one of its greatest attractions, and which are supposed by many authorities to be a great benefit to the invalids. The Burial Board have set a good example in this matter by planting the Cemetery grounds with pine trees. In a few years the protection to the town from these will be considerable. If the neighbouring landlord could be induced to plant two or three belts of trees on the north side of the Dean Park, which is at present bare, as he has already done with such good effect in the inner circle of Dean Park, it would be of vast benefit to the town. Owners of land on the West Cliff should also act in a similar manner, for their own interest as well as for that of the town generally. There can be

no doubt the salubrity of the atmosphere and its beneficial results to invalids is in some measure attributable to the pines. The pine trees in Bournemouth act beneficially in two ways : first, as a natural respirator ; second, from their resinous odour, more especially to be observed in the spring time, when the sap is rising, being especially stimulating and beneficial to those suffering from respiratory disorders."

If those who owned the land which environed Bournemouth in those early days had carried out that suggestion, I will venture to say that by this action alone they would have contributed more to the maintenance and reputation of the town than can be easily estimated. It must be candidly admitted that the land owners had an opportunity to do this good work for Bournemouth, but up to the present they have in the main failed to undertake it.

The opportunity still remains to them, and even perhaps at this late interval it may not be in vain to once again appeal to them to give this matter due consideration. They and their heirs will certainly benefit, and in addition to this they will have the satisfaction of knowing that they have contributed a something of value to the town which in future ages may go far to sustain and maintain its continued reputation as a health resort. It is with this hope in my mind that I indite these paragraphs in my annual report.

Your Council have not entirely failed to recognise the importance of the continual planting of pine trees. For years past your Council have continued to plant pine trees wherever an opportunity offered, but the Council's ownership of freehold land is limited, and the result has been but small in comparison with what might have been a great result if the land owners had estimated the importance of so doing. I think this matter is so important that I venture here to make the suggestion that the Council should appoint a skilled arboriculturist to advise and control year by year the planting of pine trees wherever possible, and to confer

and advise land owners in the immediate district the kind of pine trees which are of the greatest value to the town and neighbourhood. I am inclined to believe that the Pinus-Pinaster for many reasons is a better sort of tree to plant than the Pinus-Austrica or Pinus-Sylvestris—that is, if we want to get the greatest advantage. This matter, I venture to believe, is worthy of your serious consideration, and if it results in a still greater attention to the great advantages which these members of the pine family are to the town, this portion of my report will not have been in vain.

I remain, gentlemen,

Yours obediently,

PHILIP W. G. NUNN,

Medical Officer of Health.

I herewith append the report from the Borough Bacteriologist, as also the reports of the Sanitary Inspectors.

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This matter I venture to believe is worthy of your
serious consideration, and if it results in a still greater
attention to the great advantages which these mem-
bers of the pine family are to the town, this portion of
my report will not have been in vain.

I am, Sir, your obedient servant,

PHILIP W. G. NIXON

Medical Officer of Health

Medical Officer of Health

I herewith append the report from the borough
bacteriologist, as also the reports of the sanitary
inspector.

The report of the bacteriologist shows that the
water supply is pure and free from all
contamination. The sanitary inspector reports
that the streets are clean and free from
filth. The report of the sanitary inspector
shows that the drainage system is in good
order and that the sewage is disposed of
in a safe and healthy manner. The report
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COUNTY BOROUGH OF BOURNEMOUTH.

ANNUAL REPORT

OF THE

BOROUGH BACTERIOLOGIST,

For the Year ending 31st December, 1904.

TO THE MAYOR AND TOWN COUNCIL,
BOURNEMOUTH.

GENTLEMEN,—

I herewith beg to present my annual report concerning the duties entrusted to me as Borough Bacteriologist.

During the past twelve months I have made 417 bacteriological investigations : this shows an increase of 87 as compared with the previous year.

The investigations may be classified as follows :—

Diphtheria and doubtful Throat Disorders ...	289
Milk Samples : Concerning Tuberculosis ...	50
Milk Samples—	
With reference to cleanliness, excess of bacteria, presence of pus, blood, &c.	50
Ice Cream Samples ...	6
Blood Examination for Enteric Fever ...	10
Sundry Pathological Examinations ...	12
	<hr/>
Total ...	417
	<hr/>

The following table shows the monthly requirements throughout the year :—

In January	34	examinations	were	made.
February	30	"	"	"
March	26	"	"	"
April	21	"	"	"
May	32	"	"	"
June	34	"	"	"
July	26	"	"	"
August	12	"	"	"
September	46	"	"	"
October	42	"	"	"
November	70	"	"	"
December	44	"	"	"
	<hr/>			
Total	417			
	<hr/>			

DIPHThERIA AND ThROAT DISORDERS OF A DOUBTFUL NATURE.

As usual, the number of examinations under the above heading are far in excess of all others, a fact which is in perfect accordance with the bacteriological administration of other towns and cities.

Judging by the frequent enquiries made as to the necessity of so many throat swab examinations, it appears desirable to repeat what I have already stated on several previous occasions. These examinations are now unanimously regarded by Public Health Authorities as absolutely necessary, not only to assist in the early diagnosis of diphtheria (which is of paramount importance), but also during the convalescent stage of the disease, to determine when the patient is free from infection, and therefore safe to associate with ordinary individuals again.

It must be apparent to every one that if the above procedure is systematically carried out as it is in Bournemouth a large number of swab examinations will be required. It is also obvious that numerous examinations do not indicate numerous cases of diphtheria,

but they do represent measures in practice for stamping out the disease, and clearing up the nature of many doubtful cases.

The principal factor in raising the total is the number of examinations a diphtheria patient often requires before he or she can be declared free from the germs of infection. Throat swab examinations are made at weekly intervals during convalescence, and in many cases the organisms of diphtheria are found to persist for a prolonged period before they are finally exterminated.

The following table will serve to illustrate the latter assertion. It shows how many times it was necessary to bacteriologically examine each patient's throat at the Sanitary Hospital from January to December, 1904 :—

18	Patients required	1	examination	...	18
42	"	2	"	...	84
15	"	3	"	...	45
9	"	4	"	...	36
9	"	5	"	...	45
5	"	6	"	...	30
2	"	7	"	...	14
1	"	8	"	...	8
1	"	9	"	...	9
					289

The first line of the above table calls for a brief explanation. All the patients referred to had more than one examination, but only those (exams.) which actually occurred in 1904 are recorded in this report. The additional examinations took place either at the end of 1903 or the beginning of 1905, or were done by me for private medical men before the patients went into hospital.

MILK.

During the year I have made 100 investigations concerning the various milk supplies of the Borough.

Fifty of these were in respect of bovine tuberculosis, and a similar number with special reference to cleanliness, excess of bacteria, and other undesirable constituents.

The results of examinations for tuberculosis have again been highly satisfactory. No tubercle bacilli were found in any of the samples received. It must be acknowledged that this freedom from tuberculous milk in Bournemouth is most gratifying to all concerned.

I regret being unable to report as favourably with regard to the other series of milk investigations.

A considerable number of samples contained an excess of foreign matter, otherwise "dirt." The predominating evil has been the presence of cow-manure in many milks, and until that form of pollution is more successfully eliminated, clean and wholesome milk will be the exception rather than the rule.

The average condition of Bournemouth milk compares very favourably with that of other places, but that is not enough. Throughout the country there is no article of food so frequently or so grossly contaminated.

It is a matter of common knowledge that milk is one of the most favourable media for the rapid growth and multiplication of bacteria. It should also be known that the smallest particle of manure contains myriads of bacteria; therefore a milk containing manure is bound to be rich in bacteria, and in a condition most favourable for putrefactive changes.

Apart from sentimental reasons, what are the main objections to the presence of manure and excess of bacteria in milk? (1) Its keeping properties are reduced to nil except by artificial means; (2) its nutritive properties are diminished and altered; (3) it not infrequently acquires pathological properties (especially in summer-time), and these give rise to numerous disorders, varying in intensity from a temporary "upset" to vomiting, diarrhœa, and other symptoms comparable to mild ptomaine poisoning. The explanation of these facts is not difficult. When bacteria grow and flourish in milk, they take certain elements from that

fluid for their nutrition. They also contribute something, *i.e.*, their waste products; the latter are frequently "irritants," and possess toxic or poisonous properties.

Times out of number, in my private capacity, I have been requested to investigate the reason of certain milks disagreeing with people, or causing more serious symptoms, and in the majority of cases the cause has been clearly traced home to the pernicious action of bacteria in altering the composition of the milk. The object of these details is to emphasise the fact that milk, which is submitted to the action of bacteria, undergoes marked detrimental changes; and as cow manure is the most fertile source of bacterial invasion in milk, it is highly desirable for dietetic and hygienic reasons alone, to reduce this form of pollution to the lowest degree possible.

The whole question of cleanliness concerning the milk supply is admittedly of grave importance from a public health point of view, but up to the present time the ideal standard has not been reached, and it appears questionable whether the desired degree of cleanliness will ever be attained, without the assistance of more drastic legislative measures.

ICE CREAMS.

Of the six samples of Ice Cream submitted to examination five were really unfit for consumption, owing to the countless numbers of bacteria present. Unfortunately, it is a common condition of things for Ice Creams, as sold in the streets, to be contaminated in the way mentioned; it is still more unfortunate that the vendors' customers are mostly young children incapable of protecting themselves. It is very difficult to obtain any definite evidence as to harm resulting from eating these "Creams," as children usually partake of them without the knowledge of their parents; but there can be no doubt that harm does result directly or indirectly when the material in question is in a semi-putrefactive condition.

TYPHOID OR ENTERIC FEVER.

The number of examinations required in connection with the diagnosis of Enteric Fever amounted to only ten for the whole twelve months, or one less than the previous year.

I believe the Medical Officer of Health has asked me to make this particular examination in every case of suspected Typhoid ; if so, it is highly satisfactory that so few have been called for. Considering the number of people, invalids and otherwise, who visit Bournemouth in the course of a year, it would not be surprising if the number of imported cases alone exceeded the very small total of Typhoids which occur annually in this Borough.

In rendering an account of the past year's work I have written at some length upon several matters which appeared to me to be worthy of comment. In enlarging upon these questions, my object has been to add, if ever so little, to the value of the Report generally.

In conclusion, I beg to express my indebtedness to the Medical Officer of Health for his kind assistance and co-operation on many occasions.

I remain, Gentlemen,

Your obedient servant,

FREDERICK J. TANNER,

Borough Bacteriologist.

COUNTY BOROUGH OF BOURNEMOUTH.

SANITARY DEPARTMENT.

March 17th, 1905.

TO THE MAYOR AND TOWN COUNCIL,
BOURNEMOUTH.

GENTLEMEN.

I herewith beg to submit for your consideration the annual statement and particulars of the sanitary works executed under your Authority for the year ending 31st December, 1904.

FACTORY AND WORKSHOP ACT, 1901.

The total number of workshops, workplaces and laundries now registered in the Borough is 476, an increase of 212 on last year.

During the year these have been inspected systematically, and as occasion has required with the view of detecting any nuisance existing therein arising from overcrowding, insufficient ventilation, insanitary conveniences or uncleanness, and generally to see that the whole of the requirements of the Factory and Workshop Act relating to such places have been complied with.

In all cases where nuisances were found to exist in or about the premises, notice has been given to the owner or occupier to abate, and in every case the notice has been satisfactorily complied with.

1,686 inspections have been made, and 151 written notices served during the year, 84 new workshops comprising 119 rooms have been registered. These rooms have been measured and cards denoting cubic space and number of workers allowed have been supplied to the occupiers.

The following is a list of the premises registered, classified according to trade :—

Trade.	Number of Premises Registered.	Number of Rooms Occupied.
Bakehouses	74	79
Laundries	51	126
Kitchens of Restaurants, &c.	35	35
Dressmakers and Milliners	108	159
Tailors	74	92
Bootmakers and Saddlers	61	64
Wood-workers... ..	26	35
Metal-workers... ..	3	3
Cycle-workers... ..	8	10
Photographers	3	5
Jewellers	6	11
Miscellaneous	27	33
Totals	<u>476</u>	<u>652</u>

BAKEHOUSES.

There are now 74 bakehouses occupied in the Borough, 6 of these being underground, and the remainder on or above the ground level.

Of the 6 underground bakehouses, 4 were certified by your Authority in December, 1903, under Section 101 of the Factory and Workshop Act to be suitable as regards construction, light, ventilation, and in all other respects to be suitable to be used as bakehouses. In the remaining two the works of improvement being extensive, they were not certified until the beginning of 1904.

The whole of the bakehouses of the Borough which require to be lime-washed have been attended to twice during the year, in accordance with the regulations.

Structural alterations have been carried out and supervised in four of the ground level bakehouses during the year.

KITCHENS OF RESTAURANTS, COFFEE SHOPS, &c.

The whole of the above premises in the Borough have now been inspected and registered as workplaces under the Factory and Workshop Act. This being the first inspection of these premises, a number were found to be in a very dirty condition, and notice was served on the occupiers where necessary to have the premises thoroughly cleansed.

It is gratifying to record that in making later visits to these premises, a great improvement was found not only in the state of the premises, but also in the cleanliness of the larders, tables, shelves, cooking utensils, &c., thereby showing the value of even occasional visits from the Inspector.

At 4 of these premises extensive alterations have been carried out during the year, in order to improve the light and ventilation; the drainage and sanitary conveniences have been entirely reconstructed, and provision made in each case for the separate accommodation of the sexes.

HOMEWORK.

Very little trouble is now experienced in getting the list of out-workers sent in by the employers.

The homes of the out-workers residing within the Borough are visited at least twice a year with the view of ascertaining if the work is done under proper sanitary conditions.

The names and addresses of out-workers residing outside the Borough have been notified to the Sanitary Authority of the district in which the work is done.

LAUNDRIES.

A large number of small laundries in the Borough are found to be conducted on the system of not employing more than two outside assistants, and thus they do not come under the Factory and Workshop Act.

In many cases this is clearly done for the purpose of evading the provisions of the Act. The occupiers of

these laundries are known to work until a very late hour at night rather than employ additional workers. Owing to the nature of the trade it does seem desirable that all laundries, whether large or small, should be subject to periodical inspection, and it is to be hoped that such premises will shortly be legislated for. At the same time it is satisfactory to report that many of the smaller laundries are pattern workplaces, and I am of opinion, if regulations relating to the drainage and floors, ventilation, temperature of workrooms, hours of labour, &c., were enforced, such regulations would be as readily complied with as in the larger laundries. If this means of livelihood were denied to the working classes and small laundries were abolished, as generally recommended by leading laundry experts, it would be a hardship to many, particularly to those residing in the outskirts of the Borough. There are also many families who prefer that their laundry-work should be washed separately.

SHOP HOURS ACT, 1892-1895,

AND

SEATS FOR SHOP ASSISTANTS ACT.

SHOP HOURS ACT.—The object of this Act is to prevent the employment of young persons (under 18 years of age) in or about a shop for a longer period than 74 hours per week, including meal hours.

During the year, 863 visits have been paid to shops in the Borough under this Act, and it is pleasing to report that in only one case has a young person been found to be employed contrary to the Act.

In this case a letter of warning was sent to the employer, who at once took steps to comply with the requirements of the Act.

In 230 cases young persons were found to be employed in shops in which the notice required by Section 4 of the Act was not exhibited.

As this was the first inspection made under this Act, notices were delivered at each of the premises, and the occupiers warned by the Inspector.

SEATS FOR SHOP ASSISTANTS ACT, 1899.—This is an Act which requires the provision of seats for female shop assistants in the proportion of one seat for each three female shop assistants employed.

At the same time that inspections were being made under the Shop Hours Act, enquiries were also made as to the compliance with this Act where females were employed in the shops.

In 10 of the shops visited the number of seats provided were insufficient. The employers in each case were requested to provide the necessary number of seats, and these requests have been complied with.

On no occasion has it been necessary to take legal proceedings, as the persons concerned have generally evinced readiness to comply with the requirements of the Acts, thus very much lessening the difficulties of their administration.

MIDWIVES ACT, 1902.

The object of this Act is to secure the better training of midwives and to regulate their practice.

The following are some of the chief duties of the local supervising authority under the Act :—

(1) To exercise general supervision of all midwives practising within their area.

(2) To investigate charges of malpractice, negligence or misconduct on the part of any midwife practising within their area.

(3) To suspend any midwife from practice, if such suspension appears necessary to prevent the spread of infectious disease.

(4) To report to the Central Midwives' Board the name of any midwife convicted of an offence.

(5) During the month of January, of each year to report to the Central Midwives' Board the names of all midwives who, during the preceding year, have notified their intention to practice within their area.

(6) To give due notice of the effect of the Act as far as practicable to those concerned.

(7) To keep a current copy of the Roll of Midwives, and generally to see that the requirements of this Act

and the rules made by the Central Midwives' Board are complied with.

During the early part of the year the provisions of the Act were advertised by public notices and by circular letters, notices, &c., addressed to the persons likely to be affected.

Fifty-one persons residing within the Borough were found to be practising as Midwives. These have been visited and advised as to the best way of complying with the Act.

Many of the midwives are found to keep no record of the cases which they attend, are without the necessary outfit of appliances, and rather than place themselves under such supervisions as will ensure that they comply with the Act, they have preferred to give up their practice as midwives and act as monthly nurses only.

At the end of the year only eleven had given notice to your Authority of their intention to practice during the year. This number is very small considering the population of the Borough.

EMPLOYMENT OF CHILDREN ACT, 1903.

This Act is designed to prevent the overworking of children under 14 years of age in those occupations not already regulated by law.

From returns received from head-masters and mistresses of the schools of the Borough, it has been found that 297 school children are employed after school hours.

It has also been found that the majority of the children likely to be employed after 9 p.m. in contravention of the Act in the Borough are newsboys, and boys employed in shops on Saturdays, consequently greater attention has been paid to this class of employment.

When making inspections under the Shop Hours Act, enquiries were made as to the employment of children. A special inspection has also been made to the hairdressers of the Borough.

Whenever children were found employed at night,

a notice has been sent to the employers pointing out the provisions of the Act.

Frequent inspections have been also made in the Borough after 9 p.m. Seventeen children have been found to be employed in contravention of the Act, and in each case a letter of warning has been sent to either the employers or parents of the children.

By the passing of the Prevention of Cruelty to Children Act, 1904, the Inspectors appointed under the Employment of Children Act are required to see that the conditions under which children may lawfully be employed in public entertainments were carried out.

During the year 12 copies of licenses granted under the Act have been received.

In seven instances the place of entertainment was visited, and in each case the conditions under which the license was granted were found to be complied with.

In one case only has there been a contravention of the Act, and in this case, after considering all the circumstances, your Authority decided not to prosecute.

FOOD SUPPLIES.

The frequent inspections of the Borough food supplies has been carried out by the Food Inspector as in former years, and on the whole found to be satisfactory. On 27 occasions the Inspector detected various unsound articles deposited or intended for sale as food, and found it necessary to seize the articles and have them destroyed.

The most serious from a public health standpoint was the seizure of two carcasses of beef affected with tuberculosis. The animals had been killed in the country and brought in to the shops in town, where the beef was exposed for sale. The Inspector, however, detected the disease on both occasions, and had no difficulty in convincing each owner as to the disease in question, and to hand the whole of the beef, &c., over for destruction.

The total amounts of various unsound foods seized and destroyed during 1904 was as follows :—

Beef ...	...	1,381 lbs.	
Pork ...	...	22 "	
Lamb ...	...	25 "	
Tripe ...	...	60 "	
Fat ...	...	10 "	
Kidneys	...	45 "	
Livers, &c.	...	67 "	
Chicken	...	63 "	
Hares ...	...	30 "	
Rabbits	...	15 "	
Shrimps	...	50 "	
Oranges	..	224 "	
Apples	..	60 "	
Eggs ...	...		300
		—	—
Total ...	...	2,052 lbs.	and 300 eggs.

FRIED FISH SHOPS.

The fried fish shops in the Borough have been periodically inspected and found in a satisfactory state of cleanliness, &c., except at one place in the Boscombe district, where a difficulty is frequently experienced in getting the occupier to keep the fish store and yard, &c., in a cleanly state.

DAIRIES, COWSHEDS, AND MILKSHOPS ORDERS.

There are now 189 premises in the Borough registered under the above Orders, viz. :—

8 Cowsheds,
36 Dairies,
33 Milkshops,
112 Purveyors.

—
Total...189, or an increase of six over the total for 1903.

Twelve premises were removed from the registered list during the year, viz. :—

4 Cowsheds—sheds unsatisfactory, cows sold, one only being kept by the parties for their own use.

3 Dairies—one place unsuitable and closed. Business in other two transferred to other dairies.

1 Milkshop—business transferred to other dairy.

4 Purveyors—three transferred to other shops, and one where sale of milk was prohibited by Inspector owing to possibility of contamination of milk.

The new premises registered during the year numbered 18, viz. :—

3 Dairies, and
15 Purveyors.

Inspections of all the cowsheds and dairies in the Borough have been repeatedly made by the Inspector, and special attention given to the cleanliness of premises, vessels, appliances, &c. Each dairy and cowshed has been limewashed at least twice during the past year in accordance with the regulations, on verbal notice being given by the Inspector.

The following works have been carried out at various cowsheds and dairies during the year :—

Entirely new dairy premises erected	...	...	4
New milk stores provided	...	...	5
New wash-up houses provided	...	...	1
New cowsheds erected	...	...	2
Walls of cowshed rendered impervious	...	...	1
New or improved drainage provided	...	...	8
Defective floors repaired and made impervious	...	...	11
Defective yards paved with impervious material	...	...	6
Alterations and repairs, <i>re</i> sanitary condition of premises	...	...	7
Nuisances abated	...	...	19
Notices to limewash	...	...	8
Notice sent, <i>re</i> necessary alterations or unsuitability of premises as cowsheds or dairy	...	...	11
Premises closed as unsuitable	...	...	4
Action, <i>re</i> possible contamination of milk	...	...	4

SLAUGHTERHOUSES.

There are nine registered and one licensed slaughterhouses within the Borough, and these places throughout the year have been regularly inspected, also the stock and meats therein.

The quarterly limewashing, as required by the Bye-laws, has on all occasions, on verbal notice being given by the Inspector, been carried out.

Thirteen nuisances have been abated during the year, mostly of a minor character, the slaughterhouses on the whole being kept in a cleanly state.

At one slaughterhouse extensive alterations are in hand regarding the accommodation for cattle, lighting, drainage, paving of yard, &c.

PUBLIC ELEMENTARY SCHOOLS.

In accordance with instructions received from the Educational Committee the drainage and sanitary arrangements of the above schools have been examined and a detailed report of the alterations and improvements required has been submitted. It is to be hoped that the improvements advocated in this report will be insisted upon during the ensuing year.

Arrangements have also been made for the daily cleansing and flushing of the conveniences and drainage by the drain-testers employed in the Sanitary Department. This has been found to work most satisfactorily. The drain-testers are more accustomed to this occasionally offensive and unpleasant work than the caretakers of the Schools. The men are now fully employed by the one Department, their duties can be better supervised and regulated. The cost of the wages is proportioned between the Educational Committee and the Sanitary Committee.

During the year 33 notices have been sent to the Educational Secretary pointing out temporary nuisances and defects ascertained in the carrying out of such cleansing. This shows the great advantage of having competent men to do this work, as by this means small defects can be remedied and put right, which, perhaps, if left undetected, might often cause danger to health, serious inconvenience and expense.

PUBLIC CONVENIENCES.

Since August last the supervision of the Public Conveniences have been handed over to the Sanitary Department and a special officer has been appointed, whose duty it is to supervise the cleansing, collect moneys and check water meters.

Several of the conveniences were built about twenty years ago, and the fittings of that time were not so cleanly and structurally sanitary, and even in a modern

town like Bournemouth it has been found necessary to replace the fittings by more modern up-to-date arrangements, so marked has been the improvement in sanitary appliances for public conveniences in the period named.

Bye-laws for regulating the conduct of persons using these conveniences have now been made by your Authority and are awaiting the approval of the Local Government Board.

Next year I hope to be able to give a complete profit and loss account of these conveniences.

WATER METERS.

The following is a comparative statement of the consumption of water supplied by the Gas and Water Company to your Authority for the year 1903 and 1904.

A total saving of 3,380,900 gallons has been effected during 1904, 2,652,000 gallons of which is on account of the construction of the Artesian Well at the Generating Station. The balance of 728,900 gallons is therefore the actual saving effected in the consumption.

Situation of Meter	Consumption in 1903.	Consumption in 1904.
Cabstand, Littledown Road ...	22,500	14,400
„ St. Swithin's Road ...	18,200	13,900
„ Waverley Road ...	23,200	16,000
Fire Station, Holdenhurst Road ...	95,100	107,800
Cabstand, Meyrick Road ...	22,200	28,100
„ Madeira Road ...	34,900	27,800
Borough Offices ...	207,000	191,400
Yelverton Chambers ...	24,100	22,500
West Gardens Tennis ...	1,000	1,400
Corporation West Yard ...	104,500	119,500
West Road Depôt ...	64,600	48,100
Drinking Trough, Chine Road ...	25,000	44,800
Cabstand, Durley Road ...	20,600	19,800
„ West Cliff Road ...	66,900	17,100
„ No. 1, West Cliff ...	24,300	19,300
„ Exeter Road ...	8,400	1,500
West Fire Station ...	30,000	40,400
Mess Room, Westover Gardens ...	28,000	3,200
Engine House in Gardens ...	690,900	731,500
Lansdowne Drinking Trough ...	24,900	31,800
Cabstand, Charminster Road ...	5,500	10,300
Cemetery, Wimborne Road ...	86,200	90,100

Situation of Meter.	Consumption in 1903.	Consumption in 1904.
The Refuse Destructor	48,900	14,700
Alum Chine, Cliff Gardens	65,300	3,800
Cabstand, Gervis Road	6,600	8,300
„ Derby Road	11,600	17,300
Knyveton Road	14,300	18,800
Boscombe Gardens Lodge	37,800	48,300
East Yard	531,600	552,000
Cabstand, Spa Road	28,900	13,600
„ Adeline Road	22,000	6,700
„ Cecil Road	6,200	8,000
„ Palmerston Road	8,600	3,400
Boscombe Depot	98,900	93,700
King's Park... ..	58,000	111,800
East Cemetery	69,000	148,000
Sanitary Hospital	445,300	552,400
Parkwood Road	170,700	109,700
Queensland Road	167,000	123,700
Rosebery Road	163,900	129,000
Clarence Park Road	146,200	100,700
Stourwood Avenue... ..	91,800	103,400
Fisherman's Walk... ..	121,400	111,600
Stourwood Road	162,200	123,700
Fountain, Parkwood Road	59,600	39,700
Boscombe Cliff Gardens	13,600	27,100
Wharncliff Road	30,200	14,300
Church Road Stables	71,000	30,500
Electric Car Sheds... ..	139,000	163,300
Boiler House Meter	6,865,000	4,213,000
Knyveton Gardens... ..	9,700	9,800
Meyrick Park Pavilion	100,900	77,100
Golf Club	133,100	153,700
Bourne Avenue Cabstand... ..	63,200	51,100
Urinal, Westbourne	82,700	50,900
„ Triangle	223,900	44,700
„ Bourne Avenue	63,200	89,400
Ladies' Lavatory, Exeter Lane	60,700	86,700
Winter Gardens	412,500	672,300
Urinals facing Pier... ..	347,200	328,500
The Pier	476,500	342,700
„ (Special for Boats)	91,000	92,000
Urinal and Cabstand, The Westover... ..	189,700	118,600
„ „ Firs Glen	208,500	80,700
Urinal and Cabstand, Lansdowne Cres.	182,000	128,800
„ „ Bosc'mbe Grdns.	179,200	233,500
„ „ Carnarvon Cres.	414,500	88,500
	<hr/>	<hr/>
	14,521,100	11,140,200
	<hr/>	<hr/>

Decrease	3,380,900
Decrease on Boiler House Meter ...	2,652,000
	<hr/>
	728,900
	<hr/>

No record was kept in 1903 of the meters for Porchester Road Schools and Mess House, Southcote Road. The consumption in 1904 was 131,400 and 257,900 respectively.

INSPECTION OF PRIVATE SCHOOLS.

POKESDOWN DISTRICT.

The inspection of the private schools in the newly-added districts referred to in last year's report has been completed, and the regulations of your Authority have been enforced where necessary, and all the schools in the Borough have been brought up to the same standard as regards ventilation, drainage, &c.

POKESDOWN.

14 private schools have been inspected and reported on.

42 rooms have been measured up.

311 pupils attend these schools.

One school was found to be overcrowded, and on the Principal's attention being called to the matter they moved into larger premises.

Sanitary defects were ascertained at these schools. The usual notices were served, and were complied with at once.

Total number of schools inspected	14
" " " rooms measured up	42

SANITARY CERTIFICATES AND INSPECTIONS.

During the year £212 7s. has been received in fees for the examination and testing of drainage and sanitary arrangements with the view of obtaining the Sanitary Certificate, and 46 new Certificates have been granted.

This amount includes the fees for the periodical test of drainage of private schools, the re-inspection of premises previously certified, &c.

STATEMENT OF ACCOUNTS.

(1) Maintenance of patients at the Sanitary Hospital ...	£282	6	3
(2) Disinfection of bedding, rooms, &c. ...	18	17	4
(3) Sanitary Inspection fees and works executed... ..	212	7	0
(4) Cesspools emptied ...	9	5	0
(5) School Cleansing, &c. ...	72	0	0
(6) Cleansing of Bourne Stream <small>Overflow</small> ...	97	6	10

Of the latter account the following amounts were recovered :—

From the Bournemouth Electric Light Co.	£24	6	8
„ the Bournemouth Gas & Water Co.	24	6	8
„ the Branksome Urban District Council	13	14	4

POLLUTION OF THE BOURNE STREAM.

Complaints have been received during the past year as to the pollution of this stream, and numerous inspections have been made by both day and night.

The pollution was found to arise from overflow pipes discharging from the works in connection with the Gas & Water Co., and also the Bournemouth & Poole Electricity Works, both of which works are in the Branksome Urban District. During the year 65 samples of the water in the brook have been taken, nine of which were sent to the Analyst.

Each of the Company's Engineers have during the year caused considerable alterations to be made at the works to remedy this pollution. Nine overflow pipes have been stopped off, and the waste water which formerly discharged through these pipes is now pumped up to a higher level and made to drain into the public sewer.

The upper portion of the stream outside the Borough has been cleansed at considerable cost, conjointly paid for by the two Companies before mentioned, the Urban District of Branksome and your Authority.

A great improvement in the condition of the water has been effected by the works carried out, and it is to be hoped that every care will be taken to prevent a recurrence of the pollution, which so seriously interferes with the pleasure of many visitors to the Pleasure Gardens, and particularly to the children with their toy boats.

DRAINAGE FOR NEW BUILDINGS.

The following works have been executed in connection with the testing of drainage and fittings for new buildings :—

465 New drains have been subjected to the water test.

In 118 instances it has been necessary to apply a second test.

In 49 instances it has been necessary to apply a third test.

In 10 instances it has been necessary to apply a fourth test.

In 395 instances the fittings of new houses have been subjected to the smoke test.

In 45 instances it has been found necessary to apply a second test.

In 10 instances it has been found necessary to apply a third test.

In 2 instances it has been found necessary to apply a fourth test.

During the year 440 new houses were erected in the Borough.

WATER SUPPLY.

141 Separate supplies of water direct from main have been provided for supplying water for drinking purposes only.

376 Cisterns have been cleansed under notice of advice.

Two new cisterns (galvanised iron) have been substituted for leaky and defective slate cisterns.

One house has been provided with water from the Water Company's main.

PARTICULARS *Re* RAINWATER TANKS AND
WELLS IN THE WINTON DISTRICT.

As reported in my last year's report, a notice was served in the latter part of the year on the owners of houses situated in the Winton and Moordown District to supply their premises with a proper supply of water in lieu of the water obtained from wells and rainwater tanks. Samples of water were obtained from 8 wells in various parts of the district and submitted to the Public Analyst, who reported that the water was totally unfit for drinking purposes. Of the 38 wells in the district 17 have now been closed and water supplied to the houses from the mains belonging to the Bournemouth Gas and Water Company.

The remaining houses were chiefly situated in roads where the Water Company's main had not been provided, but at the request of your Sanitary Authority the Company have now extended their mains in the roads, and I am hopeful that during the present year the owners will see the advisability of obtaining the Company's supply without formal action having to be taken.

Of the 44 rainwater tanks reported on, 36 have been abolished, and the water from the Company's main has been laid on to the houses. In five instances the water has been supplied and works executed by your Authority and the owners charged with the expenses incurred under Section 62 of the Public Health Act, 1875. In the remaining eight houses, the works are in progress in five houses, and in the other three instances the houses are situate at too great a distance from the Company's main to be dealt with at present.

INFECTIOUS DISEASE.

During the year 344 cases of infectious disease have been notified, and each of the premises at which such cases have occurred have been inspected, and the usual enquiries made as to the source of the disease, school, employment, &c.

344 reports, giving the particulars of the enquiries made and the result of the inspection, have been supplied to the Medical Officer of Health.

The drainage and sanitary arrangements of nearly all the premises where infectious disease has been notified have been tested. 167 premises were found to be unsatisfactory. The usual notices were served on the owners or occupiers, calling their attention to the defects, and requesting them to remedy the same. The necessary alterations have been made in each case. The house drains and sewers, where necessary, have also been flushed by the Disinfector.

Where the patient is not removed to the hospital, the Inspector for the District insists on isolation as far as practicable, and a pamphlet form of suggestions is left at the house where the patient resides, giving particulars as to the nursing, disinfection, penalties, &c.

In cases occurring among school children, notice is sent to the school teacher advising that any other children of the same family or household be kept in quarantine for the necessary number of days. 175 such notices have been served upon the school teachers, and 146 on the parents of the children.

The amount of fees paid for notification of infectious disease during 1904 was £44 18s. 6d.

The horses at the Fire Station have been used for ambulance work, and the amount apportioned by the Lighting Committee during the year has been £15 19s. 7d. and the amount received £22 5s. 6d., thereby showing a balance to the good of £6 5s. 11d. This arrangement has effected a saving of about £60 per annum.

The total number of articles, including bedding, &c., that have been disinfected by the Disinfector (Bengafield) at the Sanitary Hospital is 4,082. These articles have been disinfected by means of Washington Lyon's Dry Air and Steam Disinfecting Apparatus.

The following is a list of rooms, wards, public conveyances, &c., which have been fumigated during the year :—

456 rooms.

4 Public Schools (Moordown Boys' School, Winton Boys' School, Winton Girls' School and Winton St. Luke's School).

22 Wards (Hospital).

1 Cab.

Total 483

In addition to this 50 rooms have been stripped and re-papered, one ward at the Victoria Hospital washed down and painted, and the drains at the Sanitary Hospital have been disinfected 168 times; 18 private drains have also been disinfected.

ACTION TAKEN FOR ABATEMENT OF NUISANCES.

367 Nuisances complained of have been attended to and the defects remedied.

3628 Letters and reports *re* insanitary premises have been written.

There has been a considerable increase in the correspondence during the year.

265 Preliminary notices have been served.

30 Premises have been formally reported to the Sanitary Committee.

67 Reports have been made specifying the works necessary to obtain the Sanitary Certificate.

208 Premises have been inspected, and the necessary alterations executed to abate nuisances which were detected on making general inspections of the Borough.

15 Formal notices have been served.

HOUSE-TO-HOUSE INSPECTION.

The time of the Staff has again this year been fully taken up with the routine work of the office, therefore it has not been possible but to give very little attention to this branch of the work.

DISTRICT No. 1.

Priory Road, Southbourne ... 16 houses.

Leaphill Road, Clarence Park	...	...	9	houses.
Rebeck Road	"	"	13	"
Clarence Park Road	...	...	14	"
Wheaton Road	...	...	20	"
Roberts Road	...	...	1	house.
Scotter Road	...	...	1	"
Spurgeon Road	...	...	1	"
			Total	75 houses.

Notices were served on the owners of Priory Road houses, but the works were allowed to stand over until the new sewer was constructed. This is now done, and the necessary works are in hand.

The notices for Clarence Park are now being dealt with.

No. 3 DISTRICT.

St. Michael's Cottages	...	...	8	houses.
Tesse Cottages	...	...	9	"
Stafford Road	...	...	5	"
Old Christchurch Road	...	...	5	"
			Total	27 houses.

No. 4 DISTRICT.

Grantham Road	...	...	16	houses.
St. Swithun's Road	...	...	6	"
			Total	22 houses.

DRAINS.

99 New drains have been constructed and connected to the public sewer in place of cesspool drainage. (Winton District).

182 Drains condemned and new ones substituted.

186 Main drains cleared from obstruction and repaired.

627 Defective branch drains and connections to traps cleared from obstruction and repaired.

215 Drains provided with intercepting traps and fresh air inlets.

- 197 Disconnecting chambers and inspection chambers built.
- 42 Stables provided with effectual drainage.
- 16 Drains provided with mica valve inlets.
- 5 Intervening syphon traps removed from drains.

VENTILATING SHAFTS.

- 95 Light iron soil pipes and ventilating shafts replaced by stout iron, with molten lead joints.
- 94 Drains ventilated by 4in. shafts.
- 34 Defective zinc ventilating shafts for soil pipes replaced by 4in. iron pipes.
- 10 Defective soilpipes inside the houses removed, and fixed on the outside walls and ventilated.
- 329 Nuisances abated arising from defective soilpipes and ventilating shafts with leaky joints terminating near windows.

W.C.'s.

- 14 Pail closets and privies replaced by approved w.c.'s.
- 14 New w.c.'s built.
- 364 Defective w.c.'s removed and replaced by "valves" or washdown apparatuses.
- 443 Closets cleaned, repaired, and put into working order, and provided with an effectual flush of water.
- 141 New drawn lead traps and connections, and trays provided to w.c.'s.
- 120 W.c.'s provided with effectual light and ventilation.
- 9 Closets and urinals condemned and removed.
- 202 Defective walls and floors under w.c.'s repaired and stopped.
- 75 Closets provided with anti-syphonage and puff pipes.

SINKS.

- 88 New sinks provided of glazed fireclay pattern.
- 58 Brick and cement sinks replaced by impervious sinks.

- 96 Scullery sink waste pipes disconnected.
- 177 Large and offensive grease pits replaced by earthenware traps.
- 288 Lead waste pipes trapped by lead "P" or "S" traps.
- 353 Waste pipes made to discharge under iron gratings.

BATHS, LAVATORIES, AND STACKPIPES.

- 28 New baths and lavatory basins provided.
- 89 Bath and lavatory wastes disconnected and trapped.
- 36 Bell traps removed and replaced by gullies.
- 183 Stackpipes disconnected.
- 559 Stackpipes made to discharge underneath gratings.

MISCELLANEOUS.

- 34 Manure receptacles built for the temporary deposit of stable manure.
- 316 Offensive accumulations removed.
- 251 Leaky roofs and gutterings made secure and watertight.
- 116 Defective floors to back yards repaired or repaved.
- 282 Rooms and passages cleansed and limewashed.
- 11 Additional cesspools provided.
- 112 Cesspools emptied and filled in.
- 17 Cesspools provided with impervious covers and gin. inlets.
- 44 Nuisances abated arising from offensive catch-pits in stable yards, &c.
- 62 Galvanised iron receptacles provided for deposit of house refuse.
- 67 Houses provided with ventilation underneath the floors.
- 16 Smoke nuisances abated.
- 42 Nuisances abated arising from the improper keeping of animals.
- 27 Rooms provided with proper ventilation.

- 22 New houses provided with drainage and fittings to meet the requirements of the Certificate Regulations.
7 Nuisances abated arising from overcrowding.

PROSECUTIONS UNDER THE PUBLIC HEALTH ACT, 1875.

(1) The proprietor of the Steam Laundry, Gladstone Road, Boscombe, was summoned upon three informations for causing a nuisance by allowing black smoke to issue from the laundry chimney on 21st April, and other dates. The Magistrates ordered the nuisance to be abated within 28 days, and directed the defendant to pay a fine of 20s. and 6s. costs in the first case, and the costs only in each of the other two cases.

(2) The owner of the five houses in Wolverton Terrace, Stafford Road, was summoned upon five informations for allowing a nuisance to exist in respect to these premises. The cases were adjourned for a week, the defendant, through his solicitor, undertaking to take steps to comply with the notices served. It was, however, necessary to apply again to the Magistrates for the orders of the Court to enforce the abatement of this nuisance.

HOUSING OF THE WORKING CLASSES ACT, 1890.

During the year two houses, Nos. 6 and 7, St. Michael's Cottages, have been closed by the owners on the notice being served upon them, under Section 32 of the above Act. Up to the present time, beyond closing the houses, no further action has been taken by the owners to comply with the notices served.

CESSPOOL DRAINAGE AT WINTON AND POKESDOWN DISTRICTS.

During the year the following works have been executed in connection with the emptying of cesspools in the above-named districts :—

WINTON DISTRICT.

Number of cesspools emptied	...	1,514
Number of loads of sewage removed	...	3,785
Number of cesspools condemned and filled up with dry earth...	...	86

POKESDOWN DISTRICT.

Number of cesspools emptied	...	72
Number of loads removed	...	163
Number of cesspools condemned and filled up with dry earth	...	20
Number of additional overflow cesspools built	... ..	2

Number of loads removed free of cost from both districts is 3,948. The two Patent Exhaust Carts have worked satisfactorily during the year, and but few complaints have been received as to the tipping of the contents of the carts.

The particulars as to the cost to the town for the emptying of cesspools are as follows :—

Expenditure.

From Jan. 1st to March 23rd, 1904.

	£	s.	d.
6 Corporation men, at 5/- per day, including overtime	111	0	0
4 " horses, at 14/- per week	33	12	0
From March 23rd to Dec. 31st, 1904.			
2 contractor's horses and 2 men, at 19/- per day, including overtime	229	18	0
2 Corporation horses, at 14/- per week each	56	0	0
4 " men, at 5/- per day, including overtime	242	0	0

Repairs, &c.

3 lengths of rubber hose	...	18	0	10
Disinfectants, 6/- per week	...	15	12	0
Oil, 1/- per week	...	2	10	0
Coke, 1/- per week	...	2	10	0
		<hr/>		
		£711	2	10
		<hr/>		

Amount Received.

Amount received for hire of exhaust cart...	...	9	5	0
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PIGGERIES AT WINTON AND POKESDOWN.

During the past year periodical inspections have been made of the piggeries situate without the prescribed distance. In the Winton district, of the 24 piggeries kept under observation, five have been abolished during the year, leaving now only 19 piggeries in this district.

In the Pokesdown District there are now only 14 piggeries, four having been removed during the year.

WINTON DRAINAGE.

The preliminary arrangements have now been made for the sewerage and draining of the houses in the Winton district. In all the roads where the sewers have been constructed a house to house inspection will be made, and the drainage and sanitary fittings will be examined and tested, and a report of the works necessary will be sent to the owners before the connection to the sewer is made. This will entail additional work and supervision on the part of the Department, but it will ensure the work being thoroughly well done in the first instance, and thus save future trouble and expense to the owners. The statement is frequently made that more infectious illness occurs after a newly constructed sewerage system has been adopted than when the old cesspool system was in use. Apart from the nuisance arising from improper sewage disposal, there is no doubt that defective sanitary drains and fittings constitute a greater source of danger to health when connected to a sewerage system than when connected with a cesspool built dry in a gravelly subsoil. It is for this reason that special attention has been given to this branch of the work in Winton.

The following special reports have been made to your Sanitary Committee during the past year, dealing with the following matters :—

(1) Gantham Road Properties, house to house inspection.

(2) St. Swithun's Road properties, house to house inspection.

- (3) St. Michael's Cottages, house to house inspection.
- (4) Tesse Cottages, house to house inspection.
- (5) Rights-of-way at rear of Joseph's Terrace and Wellington Terrace.
- (6) Steam Laundry, Gladstone Road.
- (7) Bourne Stream.
- (8) Wells and rainwater tanks in Winton and Moor-down.
- (9) Wolverton Terrace, Stafford Road, house to house inspection.
- (10) Old Christchurch Road Properties, house to house inspection.
- (11) Slaughterhouse, Kemp Road, Winton.
- (12) Two reports, *re* the Management of the Public Conveniences.
- (13) Two reports, *re* the Employment of Children Act, 1903.
- (14) Memorial, *re* nuisance from Gas Works.
- (15) Moordown Farm.
- (16) Prevention of Cruelty to Children Act, 1904.
- (17) House refuse tip, Alma Road Common.
- (18) Registered Common Lodging House, Terrace Road.
- (19) Sanitary Congress, Glasgow.
- (20) Underground bakehouse, Bournemouth Arcade and Charminster Road.

SALE OF FOOD AND DRUGS ACTS 1875-1899.

I herewith append report and summary of Food and Drugs Inspector on articles taken by him for analysis during 1904.

From his report it will be seen that out of 300 articles procured, 43 were reported of poor or doubtful quality, and 50 as adulterated. This gives a percentage of 16·6 per cent., which is somewhat higher than that of the two previous years, 1902 and 1903, when the percentage of adulterated samples was as follows :—

1902	...	...	15·8	per cent.	adulterated
1903	...	...	12·3	"	"
1904	...	...	16·6	"	"

The expenses incurred by your Authority in the administration of this Act during the year 1904 will not be less than £300, and the percentage of adulteration is high, but the total amount of fines imposed is only £6 10s. The principal deterrent at present against adulteration appears to be the public announcement of the prosecutions in the local newspapers.

In carrying out the duties of my office, I have been loyally assisted by all the members of the Staff of the Department, and whenever it has been necessary to work overtime, either before or after office hours, they have always responded earnestly and willingly.

I also beg to thank the Chairman and Members of the Sanitary Committee, for the careful consideration given by them to all matters pertaining to the Department.

I remain, Gentlemen,

Your obedient servant,

Wm. Geo. COOPER,

Chief Sanitary Inspector.

TO THE MAYOR AND TOWN COUNCIL,
BOURNEMOUTH.

GENTLEMEN,

I have the honour to submit to you my report upon the 300 samples of Food and Drugs forwarded to me during 1904 by Mr. J. Christie, Inspector under the Food and Drugs Acts.

Of the total number, 50, or 16·6 per cent., proved to have been adulterated or deficient in some important constituent, whilst 43, or 14·3 per cent., were also found to be poor or of doubtful quality.

The accompanying tabular statement indicates the general results obtained :—

Article Analysed.	No. of Samples.	No. Genuine.	Poor or Doubtful.	Coloured.	Containing Preservatives.	No. Adulterated.	Percentage Adulterated.
New Milk ...	80	43	31	34	0	6	7·5
Separated Milk ...	2	2	—	1	—	—	—
Condensed Milk ...	6	6	—	—	—	—	—
		(Sweetened)					
Cream ...	1	1	—	—	—	—	—
Butter ...	32	31	—	—	5	1	3·1
Coffee ...	9	8	1	—	—	—	—
„ and Chicory ...	3	3	—	—	—	—	—
Cocoa ...	8	8	—	—	—	—	—
Demerara Sugar ...	14	12	1	3	—	1	7·1
Preserved Peas ...	23	9	—	14	—	14	60·8
Vinegar ..	12	8	3	—	—	1	8·3
Pepper ...	7	7	—	—	—	—	—
Ground Ginger ...	8	8	—	—	—	—	—
„ Cinnamon...	8	6	1	—	—	1	12·5
„ Cloves ...	3	2	1	—	—	—	—
Mixed Spice ...	7	5	2	—	—	—	—
Baking Powder ...	10	9	—	—	—	1	10·0
Self-Raising Flour...	12	9	—	—	—	3	25·0
Olive Oil ...	1	1	—	—	—	—	—
Wines ...	9	9	—	—	1	—	—
Lithia Water ...	12	2	—	—	—	10	83·3
Potash Water ...	8	3	—	—	—	5	62·5
Lemon Crystals ...	9	9	—	8	—	—	—
Cocaine Ointment...	4	2	—	—	—	2	50·0
Compound Decoction of Aloes ...	5	0	—	—	—	5	100·0
Potted Fish, &c. ...	7	4	3	—	6	—	—
	300	207	43	60	12	50	16·6%

The following points of interest are suggested by these results :—

MILK.—Judged by the percentage of adulterated samples alone the quality of this article would appear to have undergone a most marked improvement as compared with 1903, when the proportion of adulterated samples was nearly three times as large, viz., 21·5 per cent.

Another matter for congratulation is the entire absence of Boric Acid or other chemical preservative, and the continued freedom from aniline dyes.

On the other hand, a very great advance has occurred in the number of “poor” or “doubtful” samples—*i.e.*, samples which contain fatty or non-fatty solids in proportions very near to the *minimum* amount found in genuine milk of healthy cows. The proportion of such samples has this year reached the very high figure of 39·2 per cent. ; last year it was only 15·4 per cent. This is probably due to the increasing practice of adding separated milk to bring down the “fat” to the lowest safe limit.

I have again to call attention to the prevalent custom of adding annatto for the purpose of giving a yellowish tint to milk. This year 34 samples out of 54 procured from dealers in the Borough proved to be so coloured, but of 26 samples taken at the point of delivery from the farmers not one was coloured.

BUTTER.—Of 32 samples only 1 was adulterated, a still further improvement upon the results obtained in 1903, when 1 was found to be adulterated out of 19 obtained for analysis. The last two years have shown a marked contrast with former years ; 2 samples out of 51, or less than 4 per cent., is a very good result for this article.

Of the 5 samples of butter which contained Boric Acid, not one contained an amount appreciably in excess of the limit of 0·5 per cent. laid down by the Preservatives and Colouring Matters Commission.

PRESERVED PEAS.—The large number of adulterated samples is due to the practice of adding Sulphate of Copper to enhance the colour.

LITHIA WATER—The 12 samples obtained showed a remarkable variation in the proportion of Carbonate of Lithium ; some, in fact, contained none at all, whilst others contained quantities varying from the standard quantity prescribed by the British Pharmacopœia of 1885 (10 grains per pint) down to traces so small as to be imperceptible to any test except the spectroscope, which is capable of detecting the $\frac{1}{100,000}$ of a grain.

The results of the prosecutions instituted were most unsatisfactory from the point of view of securing the supply of a fairly uniform article to the public, but they will have served a useful purpose if only to have warned the public that unless the proportion of Carbonate of Lithium is distinctly stated upon the label they are probably paying the price of "Lithia Water," and obtaining what is practically "Soda Water." The prosecutions will also have proved of value to the medical profession by having drawn attention to the necessity of warning their patients to insist on receiving the *medicinal* water when purchasing "Lithia Water."

POTASH WATER.— The above remarks on Lithia Water apply with somewhat less force to this article also.

LEMON CRYSTALS AND POWDER.—Of the 9 samples 6 contained traces of lead, derived from the Citric or Tartaric Acid used ; in no case, however, did the proportion warrant prosecution, although in one instance the amount was such that when made into "Lemonade," according to directions, the proportion of lead would approach near to the maximum allowable in potable water.

BAKING POWDER.—These samples all consisted of Cream of Tartar and Bicarbonate of Sodium, with Rice Flour. With two exceptions all contained mere traces of lead, but not sufficient to be of importance ;

one other sample, however, contained a quantity sufficient to prove detrimental to health if its use were long continued ; a letter of warning was sent by the Inspector.

In conclusion, although the proportion of adulterated samples has again risen to 16·6 per cent as compared with 12·3 per cent last year, the significance of this fact is considerably reduced, when it is considered that 14 of these adulterated samples were Preserved Peas, which by a wide-spread custom have been systematically coloured with Sulphate of Copper ; owing to these the percentage of adulterated samples has been much raised. Excluding these so as to be more strictly comparable with former years, the percentage is only 13, or nearly the same as last year.

Taking only the more important articles of food—Milk, Butter, Sugar, Cocoa, Coffee, and Tea, the number of adulterated samples was only 8, or $5\frac{1}{2}$ per cent. whereas last year the percentage of these six articles was 14·3.

Notwithstanding, therefore, the apparently large total number of adulterated samples, I consider that the result of the year's working of the Food and Drugs Acts has been most satisfactory.

I am, gentlemen,

Your obedient servant,

R. A. CRIPPS,

Public Analyst.

Feb. 11th, 1905.

COUNTY BOROUGH OF BOURNEMOUTH.

SANITARY DEPARTMENT,

February, 1905.

TO THE MAYOR AND TOWN COUNCIL,
BOURNEMOUTH.

GENTLEMEN,

SALE OF FOOD & DRUGS ACTS, 1875-1899.

During the year 1904, 300 samples of various foods and drugs were procured under the above Acts, and submitted for analysis to R. A. Cripps, Esq., F.I.C., Public Analyst for the Borough.

Of the 300 samples analysed, 207, or 69 per cent., were reported to be genuine articles; 43, or 14·3 per cent., to be of poor or doubtful quality; and 50, or 16·6 per cent., to be adulterated or deficient.

This percentage of adulterated samples is somewhat higher than that of the two previous years, although not so high as that of 1901, as the following table will show :—

Year.	Number of Samples Analysed.	Number Adulterated.	Percentage Adulterated.	Decrease per Cent.	Increase per Cent.
1901	188	33	17·5	—	—
1902	253	40	15·8	1·7	—
1903	300	37	12·3	3·5	—
1904	300	50	16·6	—	4·3

This 4·3 increase in the percentage of adulterated samples is attributable—first, to 15 out of 20, or 75 per cent., of the samples of aerated waters analysed being reported to be largely deficient or entirely devoid of the chemical they should have contained; secondly, to 14 out of 23 samples of green peas being reported to be adulterated with sulphate of copper; and, thirdly, to 7 out of 10 samples of drugs being reported not to be in accordance with the British Pharmacopœia standard.

From the following table it will therefore be seen that aerated waters, preserved peas and drugs account for no less than 36 out of the total of 50 samples which were reported adulterated :—

Sale of Food and Drugs Acts, 1875-1899.

Summary of samples forwarded to the Public Analyst for analysis during the year 1904, showing number of samples of each article analysed and the result of analysis.

Number of Samples Analysed.	Article.	Reported by Analyst.			Remarks.
		Genuine.	Poor or Doubtful.	Adulterated.	
12	Aerated Waters— Lithia Water ...	2	—	10	6 samples contained no Lithia; 4 were deficient in Lithium Carbonate from 28 to 95 per cent.
8	Potash Water ...	3	—	5	Deficiency of Potash varied from 4 to 8 grains per pint.
10	Baking Powder ...	9	—	1	1 contained approximately 3/10th grain of lead per lb.; 7 traces of lead
32	Butter ...	31	—	1	1 consisted almost wholly of Margarine.
7	Cocoa ...	7	—	—	
1	Cocoa Mixture ...	1	—	—	
9	Coffee ...	8	1	—	
3	Coffee and Chicory ...	3	—	—	
1	Cream ...	1	—	—	1 contained about 6 per cent. excess of moisture.
	Drugs—				
4	Cocaine Ointment, B.P. ...	2	—	2	2 were prepared with Hydrochlorate of Cocaine instead of Cocaine.
5	Compound Decoction Aloes, B.P. ...	—	—	5	All 5 were deficient in Alcohol from 59 to 76 per cent.; 3 in Extractive from 10 to 70 per cent.
1	Olive Oil ...	1	—	—	
12	Flour, Self-Raising ...	9	—	3	3 contained Calcium Sulphate through using impure Acid Phosphate of Calcium, &c.
7	Meats, Potted ...	4	3	—	Doubtful, owing to excess of boric acid.

Milk—					
1	Condensed	1	—	—	
5	Machine Skimmed Do. ...	5	—	—	
80	New	43	31	6	1, 2, 2, 2 $\frac{1}{2}$ per cent. added water; 10 and 14 per cent. deficient in cream.
2	Separated	2	—	—	
Non-Alcoholic Drinks—					
1	Herb Beer Powder	1	—	—	
8	Lemonade Crystals	8	—	—	8 were coloured with Aniline Dye; 6 contained lead from 0.2 to 0.16 grain per lb.
Peas—					
11	Bottled	1	—	10	10 contained Sulphate of Copper from 1.3/10th gr. to 3 2/5th gr. per lb. No colouring matter.
7	Packets	7	—	—	4 contained Sulphate of Copper from 1.1/20th gr. to 3 $\frac{1}{2}$ gr. per lb.
5	Tinned	1	—	—	1 contained Salicylic Acid = 0.35 gr. per pint.
9	Port Wines, Cheap	9	—	—	
Spices—					
8	Ground Cinnamon	6	1	1	Ash equivalent to 1.5 and 4 per cent. of sand.
3	" Cloves	2	1	—	One had been prepared from very lowest quality of cloves
8	" Ginger	8	—	—	
7	Mixed Spice	5	2	—	
7	White Pepper	7	—	—	
14	Sugar, Demerara	12	1	1	One consisted of dyed crystal sugar.
12	Vinegar, Malt	8	3	1	One consisted wholly of wood vinegar.
300		207	43	50	

AERATED WATERS. — Twenty samples of Aerated Waters were purchased for Analysis, viz. :—12 of Lithia Water and 8 of Potash Water.

Of the 12 Lithia Water samples no less than 10 were reported to be deficient in Lithium Carbonate, in fact, 6 samples contained no Lithium Carbonate whatever, while the deficiency in the other four varied from 28 per cent. to 95 per cent. The standard taken by the Analyst was 10 grains Lithium Carbonate per pint.

Legal proceedings were taken in eight instances, when one case was dismissed, one withdrawn, and six convicted. The total amount of fines imposed was £6.

POTASH WATER.—Of the eight samples of Potash Water, five were reported to be deficient in Potash from four to eight grains per pint. The standard taken was 10 grains Bicarbonate of Potash per pint.

Legal proceedings were taken in four instances, with the result that three were dismissed and one withdrawn.

BUTTER.—Of the 31 samples of Butter analysed only one was reported to consist of Margarine.

This sample was purchased from an itinerant vendor, against whom legal proceedings were taken, but before service of the summons he had absconded.

DRUGS.—Ten samples of Drugs were purchased during the year, and seven of them were reported by the Analyst not to be up to the standard of the British Pharmacopœia, notwithstanding that the letters B.P. were on each prescription used.

Of four samples of Cocaine Ointment, B.P., two were found to have been prepared with Hydrochlorate of Cocaine instead of Cocaine, while all five samples of Compound Decoction of Aloes, B.P., purchased were found to be, more or less, deficient, viz. :—two deficient in Alcohol only, two deficient in both Alcohol and Extractive, and one deficient in Alcohol, Extractive and Potassium Carbonate.

In five instances proceedings were taken against the vendors, with the result that all five were dismissed, under Section 16 of the Summary Jurisdiction Act, on payment of costs.

FLOUR, SELF - RAISING. — Of 12 samples analysed three were reported to contain Calcium Sulphate (Plaster of Paris).

Letters of warning were written to the vendors, but it is felt that legal proceedings will have to be instituted against those vendors who persist in using "Cream Powders" and other cheap substitutes, instead of pure Cream of Tartar and Bicarbonate of Sodium, which are the recognised substances to add to make flour self-raising.

Traders should all be aware of this form of adulteration, for attention was called to the matter in 1903, and during the past year various articles and correspondence have appeared in Bakers, &c., trade journals regarding this form of adulteration of flour.

MILK.—Eighty samples of New Milk were procured for analysis during the year, and of these 43 were reported genuine, 31 as of poor quality (under 3·2 per cent Milk Fat), and 6 as adulterated or deficient in Cream.

Two samples of Separated Milk were both reported as genuine.

RETAIL VENDOR'S SAMPLES.

54 out of the 80 samples of New Milk analysed were purchased from retailers within the Borough, 29 being reported genuine, 20 of poor quality, and 5 as adulterated or deficient.

The Milk as sold by retailers in the Borough has been quite up to the average quality of the past few years, and considering that 43 of the 54 vendor's samples were purchased during March, April, and May, when Milk is naturally at its lowest in Milk Fat, it is matter for congratulation that only 5 samples were

reported as adulterated, 4 being only slightly deficient in fat or non-fatty solids, and 1 deficient 14 per cent. in Cream. The vendor of the latter sample was prosecuted, but, relying upon a warranty for his defence, the case was dismissed.

FARMER'S SAMPLES.

The other 26 samples of New Milk were procured as delivered in town by the dairy farmers, and of these 14 were reported genuine, 11 of poor quality, and one 10 per cent. deficient in Cream. A letter was written to the consignor of this deficient sample asking if he could give any satisfactory explanation as to the deficiency of Cream. In an interview with him the explanation given was scarcely satisfactory.

It was ascertained, however, that his cows were milked at intervals of 16 hours and 8 hours, and that the yield of milk daily was approximately 113 gallons after the 16 hours interval, and 60 gallons after the 8 hours interval.

Advice was given him to milk at more regular intervals, and to mix all the milk together before despatch, so that each churn sent would contain milk of the same quality.

On three test samples being taken a month later, each was found to be above the minimum standard of three per cent. fat.

Although an increased number of milk samples were taken last year for analysis, the figures herewith given will show that the number of adulterated samples has largely diminished, and it may also be said the extent of adulteration was not so marked.

Year.	Samples of Milk Analysed.	Number Adulterated or Deficient.	Percentage Adulterated.
1901	50	9	18.0 per cent.
1902	56	8	14.3 "
1903	65	14	21.5 "
1904	80	6 (4 slightly)	7.5 "

TEST SAMPLES OF MILK.

In addition to the 80 samples of new milk analysed by the Public Analyst, 60 samples of new milk were taken as delivered by farmers to the retailers in town. To accurately gauge the quality of the milk supplied, samples were taken out of each churn in a delivery, and in some cases both morning and afternoon deliveries were thus sampled.

These samples were then subjected to the "Gerber" test for milk fat, with the result that 22 were found to be below the minimum standard, 14 of them slightly.

It was noted on several occasions that milk consigned from the same farm varied in quality in each churn, some being above, while others were below, the standard. In such cases it has been advocated that farmers should mix all the milk together before leaving the farm, so that each churn may contain milk of a uniform quality. Last year I reported that several dairymen in the Borough, knowing of this variable quality of milk contained in churns coming from the same farm, were in the habit of mixing such milk together before sending it out. This they do for their own protection, but, clearly, it is the farmer who should do the mixing. If any farmer fails to do so he may find some day that a sample has been taken out of one of his churns of milk, and that he will have to appear as defendant in a prosecution, his milk having been found to be below the standard.

In those test samples where deficiency of cream was found, letters of warning were written to the farmers, calling attention to their milk not being up to the standard, and, in some cases where the morning's milk was found to be poor or deficient in cream, and the afternoon's milk found to be rich, showing thereby that the cows were being milked at irregular intervals, advice was given to alter the times of milking to more regular periods. In a few cases the farmers followed the advice given, with satisfactory results, as proved by the better quality of samples of morning's milk tested afterwards.

COLOURING MATTERS AND PRESERVATIVES IN MILK.—Thirty-five, or 64·8 per cent., of the 54 samples of milk purchased in the Borough during 1904 were reported by the Analyst to have been coloured with annatto.

This percentage of "Coloured" samples of milk compares favourably with the percentage for 1903, which was 85·4 per cent. Moreover, the amount of colouring matter used was somewhat less than in previous years, and in no instance was aniline or coal-tar colouring found.

This colouring of milk to give it a false appearance of richness is only practised by retail vendors in town, all the 26 samples of milk procured for analysis as delivered by the farmer to the vendor being found to be entirely free from artificial colouring matter.

PRESERVATIVES IN MILK.—A noticeable feature of the past year's milk supply has been the entire absence of Boric Acid or other preservative in any of the 52 samples of milk analysed.

This is as it should be, and I trust the habit of adding preservative to milk has been entirely discontinued in the Bournemouth district.

Medical evidence given from time to time in the Police Courts, when vendors have been prosecuted for adulterating milk with preservative, has been strong against the use of any chemical preservative in milk, owing to the harmful effect upon young children and invalids who practically exist upon a milk diet, and to whom drugs should not be administered except on a medical man's advice.

COLOURING MATTERS, &c., IN OTHER FOODS.—The following table shows the number of samples of various articles of food in which colouring, preservative, &c., were found :—

SALE OF FOOD & DRUGS ACT, 1875-1899.

Table showing number of samples analysed during 1904 reported to contain preservative, colouring matter, or some metal :—

No. of Samples Analysed.	Article.	Containing Salicylic Acid.	Containing Boric Acid.	Containing Colouring Matter.	Containing Lead, etc.	Quantities.
10	Baking Powder ...	—	—	—	8	1-3/10 gr. lead per lb., 7 traces of lead.
32	Butter ...	—	5	—	—	0·43, 0·32, 0·35, 0·36, 0·25 per cent. Boric Acid.
14	Demerara Sugar...	—	—	3	—	Aniline Dye traces.
16	Green Peas ...	—	—	—	14	1-1/20, 1-3/10, 1½, 1·4, 1½, 2-1/5, 2·45, 2½, 2-7/10, 2-7/10, 3, 3·1, 3-2/5, 3½ grains of Sulphate of Copper per lb.
8	Lemonade Crystals	—	—	8	6	Traces of Aniline Dye; Lead 0·02, 0·04, 0·04, 0·06, 0·16, 0·08 grain per lb.
82	Milk ...	—	—	35	—	Traces of Annatto.
9	Port Wines ...	1	—	—	—	0·35 grain per pint.
7	Potted Meats ...	—	6	—	—	0·22, 0·5, 0·6, 0·75, 0·8, 0·98 per cent.
		1	11	46	28	

PRESERVED PEAS.—16 samples of bottled and tinned Preserved Peas were analysed, and no fewer than 14 were found to contain Sulphate of Copper in amounts ranging from 1½ grain to 3½ grains per lb.

Seven samples of dried Green Peas (packets) were also analysed, but no trace of Sulphate of Copper was found in any of these samples.

In 1901 the Departmental Committee on Preservatives and Colouring Matters in Food recommended : "That the use of Copper Salts in the so-called greening of preserved foods be prohibited." A minority report of one, however, recommended : "That the amount of Metallic Copper per pound should be restricted to half a grain, equivalent to 2 grains of Sulphate of Copper per lb., and that the presence of Copper in preserved vegetables should in each case be declared."

In 9 instances, where the amount of Copper Sulphate exceeded 2 grains per lb. of peas, legal proceedings

were taken against the vendors, with the result that one case was dismissed and one convicted, a fine of 5s. being imposed. Notice of appeal having been given, the other seven cases were by consent adjourned, and were ultimately withdrawn on the request of defendants' solicitor, who consented to pay costs. The appeal was not proceeded with and the conviction allowed to stand.

Other samples reported adulterated were :—

- 1 Baking Powder with $\frac{3}{10}$ th grain of Lead per lb.
- 1 Ground Cinnamon with Ash equivalent to 4% of sand.
- 1 Demerara Sugar, which consisted of Dyed Crystal Sugar.
- 1 Malt Vinegar which consisted wholly of Wood Vinegar.

Legal proceedings were not taken in regard to any of these samples, the explanations given by the vendors being accepted as satisfactory. Strong letters of warning were, however, sent.

MARGARINE ACT, 1887.—Legal proceedings were instituted only in one case of Margarine sold contrary to Section 6, but the vendor had absconded before the summons could be served.

On one occasion only was it necessary to warn a vendor of Margarine regarding the exposure of the $1\frac{1}{2}$ inch label marked "Margarine."

LETTERS OF WARNING.—In 40 instances letters of warning were written to vendors of samples reported doubtful or inferior.

SALE OF MILK IN PUBLIC PLACES.—Under Sections 9 and 11 of the 1899 Act three letters of warning were written to milk sellers, *re* absence of name on van or vessels while selling milk in public places.

PROSECUTIONS.—Legal proceedings were instituted on 30 occasions, with results as shown in the following statement :—

Statement of Cases in which legal proceedings were taken with respect to samples reported as adulterated; the result of such proceedings and the respective amounts of the penalties inflicted.

Article.	Extent of Adulteration, &c.	Proceedings Taken Under.	Result of Proceedings.	Fines. £ s. d.
Green Peas	3 grains Sulphate of Copper per lb.	Sect. 6, 1875.	Withdrawn on payment of costs.	
Do.	2-1/5th grains do.	Do.	do.	
Do.	2-45 grains do.	Do.	do.	
Do.	2-7/10th grains do.	Do.	do.	
Do.	2 1/2 grains do.	Do.	Dismissed.	
Do.	2-7/10th grains do.	Do.	Withdrawn on payment of costs.	
Do.	3-1 grains do.	Do.	Convicted.	0 5 0
Do.	3-2/5th grains do.	Do.	Withdrawn on payment of costs.	
Do.	3 1/2 grains do.	Do.	do.	
Comp'd. Decoct. of Aloes, B.P.	59% deficient in Alcohol and 20% in Extractive.	Do.	Informations dismissed under Sect. 16 of the Summary Jurisdiction Act, on payment of costs.	
Do.	76% do. 70% Extractive, and 50% Potass. Carb.	Do.		
Do.	66% do. and 10% deficient in Extractive.	Do.		
Cocaine Ointment, B.P.	Made from Hydrochlorate of Cocaine instead of Cocaine.	Do.		
Do.	Do. do.	Do.		
Butter	Consisted almost wholly of margarine.	Do.	Summons unserved; vendor absconded.	
Do.	Margarine in unmarked wrapper.	Sect. 6, 1887.	Do.	
Do.	Refusing to serve Inspector.	Sect. 17, 1875.	Convicted	0 5 0
New Milk	14% deficient in cream.	Sect. 6, 1875.	Dismissed on warranty.	
Lithia Water	70% deficient in Lithium Carbonate.	Do.	Withdrawn.	
Do.	65% do.	Do.	Dismissed.	2 0 0
Do.	Entirely devoid of Lithium Carbonate.	Do.	Convicted.	1 0 0
Do.	90% deficient in do. do.	Do.	Do.	0 10 0
Do.	95% do. do.	Do.	Do.	1 0 0
Do.	Entirely devoid of Lithium Carbonate.	Do.	Do.	0 10 0
Do.	Do. do.	Do.	Do.	1 0 0
Do.	Do. do.	Do.	Dismissed.	
Potash Water	Only 3-7 grains of Potash Bicarbonate per pint.	Do.	Withdrawn.	
Do.	Only 5 do. do.	Do.	Dismissed, Sec. 16, Sum. Jurisdiction Act, on payment of costs.	
Do.	Only 3-4 do. do.	Do.		
Do.	Only 2-6 do. do.	Do.		

£6 10 0

Total number of legal proceedings instituted	...	30
Do. of cases dismissed or withdrawn	...	22
Do. of cases convicted	...	8
Total amount of fines imposed	...	£ 6 10 0
Do. of Analyst's fees recovered	...	7 7 0

In conclusion, I would respectfully call your attention to the fact that although 28 cases came before the Court, the total amount of the fines inflicted during the year shows a great falling off compared with previous years.

This is due, firstly, to the large number of cases which have been dismissed on payment of costs only, and, secondly, to the small fines which have been imposed in those cases convicted.

As all fines imposed are recoverable by your Authority to be applied towards the expenses of executing the Sale of Food and Drugs Acts (Section 26, 1875), the following statement, showing the results of prosecutions during the past four years, may prove of interest :—

Year.	No. of Prosecutions.	Cases Withdrawn or Dismissed.	Cases Convicted.	Total Amount of Fines Imposed.
1901	16	1	15	£ 37 19 0
1902	31	5	26	81 0 0
1903	19	5	14	64 10 0
1904	28	20	8	6 10 0

In 1902 the Secretary of State sent out a circular calling attention to the inadequate penalties imposed for breaches of the provisions of the Sale of Food and Drugs Acts, and to a Select Committee of the House of Commons which inquired into the subject, reporting "that the penalties imposed in respect of offences under the Acts are for the most part trifling and quite insufficient to serve as a deterrent."

The circular ends with the following remarks :—

"It is unnecessary to point out the injurious consequences of the adulteration of articles of food, or the large and sometimes enormous profits that accrue from the practice ; and it is obvious that when the penalty on detection is trifling, it not only fails to be deterrent, but may even spread the mischievous impression that the offence is venial.

"The Secretary of State does not wish to be understood as suggesting that these considerations are lost sight of by your Bench, but the figures appear to be

sufficient to show that the state of things to which the Parliamentary Committee called attention has not yet been set right, and he will be glad if you will bring the matter to the notice of the justices in order that, as occasion arises, they may give special consideration to the question whether the penalties imposed in the cases that come before them are such as are likely to deter the offenders from repeating, and other persons from committing, the offence."

I remain, Gentlemen,

Your obedient Servant,

JOHN CHRISTIE,

Inspector under Food and Drugs Acts.

February, 1905.

entirely to show that the state of things to which the
Parliamentary Committee called attention has not yet
been rectified and he will be glad if you will bring the
matter to the notice of the House in order that as
occasion arises they may give special consideration to
the question whether the penalties imposed in the case
that come before them are such as are likely to deter
the offender from repeating, and other persons from
committing the offence.

I remain, Gentlemen,

Your obedient servant,

JOHN CHRISTIE

Advocate, 10, South Bridge Street,

Edinburgh, 1907.