

**[Report 1905] / Medical Officer of Health, Bournemouth County Borough.**

**Contributors**

Bournemouth (England). County Borough Council. nb2004301338

**Publication/Creation**

1905

**Persistent URL**

<https://wellcomecollection.org/works/xjzgn5qv>

**License and attribution**

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

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

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

**wellcome  
collection**

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



*Bou Bury*

COUNTY BOROUGH OF BOURNEMOUTH,  
1905.

---

# 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 Act.*

---

BOURNEMOUTH:

HOLLAND ROWBOTTOM, "GRAPHIC" OFFICE.



COUNTY BOROUGH OF BOURNEMOUTH  
1907

ANNUAL REPORT

MEDICAL OFFICER OF HEALTH

BOROUGH BACTERIOLOGIST

CHIEF SANITARY INSPECTOR

PUBLIC ANALYST AND FOOD

INSPECTOR

Re Sale of Food and Drugs Act

Bourne, Bournemouth, 1907

COUNTY BOROUGH OF BOURNEMOUTH.

---

---

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH.

---

---

MEDICAL OFFICER OF HEALTH'S DEPARTMENT,  
BOURNEMOUTH,

*February, 1906.*

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, 1905.

POPULATION.

The population of the County Borough is steadily increasing. It is in the outlying districts of Pokesdown, Winton and Moordown that this increase is perhaps most noticeable. It is certainly in these districts that the building operations are most active.

The increased facilities we have had for the past three years of getting to and fro quickly to the centre of the town is undoubtedly the most helpful aid to this development.

I gather from the Rate Collector that in the year 1902 the number of houses on the rate books was 11,089, and for the year ending December, 1905, the number was 12,578, and of these only 250 are void.

Taking  $5\frac{1}{2}$  as an estimate for each house occupied, this would give us a population of 67,996, but as I prefer to take a moderate estimate of population for the purposes of this report I have thought it better to base my calculations of Birth and Death rates on a population of say 66,000, which is a few hundreds under the estimate of the Registrar General.

## NEW BUILDINGS.

There has been a steady increase of new buildings erected in the districts, as will be seen by the under-mentioned table.

Year.	Houses.	Large Additions, Stables, Workshops, and other Buildings.	Total.
1899	130	95	225
1900	174	97	271
1901	200	122	322
1902	294	99	393
1903	436	120	556
1904	440	106	546
1905	479	103	582
Totals	2153	742	2895

In speaking of these new buildings I think it necessary to say there is a danger to the health and well being of the occupants living too soon in a new house, the walls of which are sometimes not always as dry as they might be. My attention has been called to this danger on several occasions, and this caution is necessary.

## ACREAGE.

The total acreage of the County Borough is 5,769 acres, and this gives us 11'4 persons per acre.

## BIRTH RATE.

The total number of Births registered in the district are :—

Boys.	Girls.	Total.
565	545	1110

The birth rate for the year for the whole district is 16'3 per 1,000.

If we compare the birth rate of the country as a whole with that of the County Borough, the latter is decidedly a low rate. This, as I have mentioned in previous reports, is probably due to the fact that in a very large portion of the Borough the inhabitants have passed beyond the child bearing age. The birth rates in the outlying districts is well up to the average of England and Wales.

## DEATH RATE.

The total number of deaths registered from all causes within the County Borough is 836, which, on my estimate of a population of 66,000, gives a death rate of 12·66 per 1,000.

These deaths are made up as follows :—

Visitors	227	Death Rate	3·43	per 1,000
Residents	609	" "	9·23	" "
<hr/>	<hr/>			
Total	836	" "	12·66	" "

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

	Before inclusion of Newly-added Districts.					
	1900	1901	1902	1903	1904	1905
Deaths of Visitors ...	189	183	206	196	260	227
Do. Residents	503	370	553	554	612	609
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Totals	692	553	759	750	872	836

You will note that the number of deaths in both classes are somewhat less than those in the year 1904.

As in previous years I herewith append a tabulated statement for the year 1905, 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.

	All Causes.	Diseases in Columns 3—9.	Small-pox.	Measles	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhoea.	Deaths under 1 year per 1,000 births.
Cols.	1	2	3	4	5	6	7	8	9	10
England and Wales	15·4	1·46	0·02	0·27	0·12	0·18	0·27	0·10	0·50	132
76 Great Towns ...	16·3	1·89	0·03	0·36	0·14	0·20	0·33	0·12	0·71	144
103 Smaller Towns	14·6	1·41	0·02	0·29	0·12	0·16	0·28	0·11	0·43	135
England and Wales, less the 179 Towns	14·8	1·08	0·02	0·17	0·10	0·17	0·22	0·09	0·31	118
BOURNEMOUTH ...	11·90	·26	·0	·01	·01	·09	·06	·01	·09	85

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

DISEASE.	1901.	1902.	1903.	1904.	1905
Small-pox ... ..	'02	'0	'0	'0	'0
Measles ... ..	'0	'22	'0	'0	'03
Scarlet Fever ... ..	'0	'0	'01	'0	'01
Whooping Cough ... ..	'10	'17	'06	'0	'03
Diphtheria & Membranous Croup	'21	'14	'09	'01	'22
Croup ... ..	'0	'0	'0	'0	'0
Fevers { Typhus ... ..	'0	'0	'0	'0	'0
{ Typhoid ... ..	'5	'01	'01	'0	'01
{ Other continued ... ..	'0	'0	'0	'0	'0
Epidemic Influenza ... ..	'12	'12	'01	'0	'06
Cholera ... ..	'0	'0	'0	'0	'0
Plague ... ..	'0	'0	'0	'0	'0
Diarrhœa ... ..	'32	'09	'09	'02	'18
Enteritis ... ..	'15	'17	'01	'01	'06
Puerperal Fever ... ..	'02	'03	'0	'0	'0
Erysipelas ... ..	'04	'02	'01	'0	'01
Other Septic Diseases ... ..	'0	'0	'0	'0	'0
Phthisis ... ..	2'17	2'36	2'12	2'28	2'09
Other Tubercular Diseases ... ..	'12	'21	'41	'59	'48
Cancer Malignant Disease ... ..	'54	'82	'76	1'12	1'10
Bronchitis ... ..	'95	'81	'53	'78	'51
Pneumonia ... ..	'46	'73	'8	'78	'62
Pleurisy ... ..	'0	'0	'06	'0	'01
Other Diseases of Respiratory Organs ... ..	'4	'0	'01	'0	'0
Alcoholism: Cirrhosis of Liver ... ..	'15	'12	'06	'01	'24
Venereal Disease ... ..	'12	'0	'0	'0	'03
Premature Birth ... ..	'32	'48	'52	'6	'45
Diseases and Accidents of Partu- rition ... ..	'11	'02	'03	'0	'10
Heart Disease ... ..	1'47	1'26	1'8	2'1	2'16
Accidents ... ..	'22	'27	'2	'23	'27
Suicides ... ..	'02	'08	'06	'0	'10
All other diseases ... ..	3'91	4'04	4'0	4'09	3'81

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

	Not including Newly-added Districts.									
	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905
Deaths under 1 year	2'0	1'6	1'6	2'6	1'47	1'68	1'94	1'5	1'92	1'39
Over 1 year & under 5	'78	'94	'45	'7	'74	'34	'87	'66	'67	'66
" 5    "    15	'48	'41	'38	'32	'44	'42	'35	'31	'43	'56
" 15   "   25	1'2	1'1	1'01	'91	'91	'82	'84	'90	'84	'87
" 25   "   65	5'6	4'56	'51	5'01	5'05	5'42	4'77	5'15	5'89	5'30
" 65 and upwards	2'4	2'58	2'78	3'34	2'86	3'00	3'54	3'31	3'81	3'86
Totals	12'4	11'1	11'3	12'8	11'47	11'68	12'29	11'83	13'56	12'64



			*Not including newly-added Districts
In 1900 the total deaths under 1 year of age were			89 } *
„ 1901	„	„	79 } *
„ 1902	„	„	120
„ 1903	„	„	95
„ 1904	„	„	123
„ 1905	„	„	92

Of these 30 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	
„ 1903	...	4	
„ 1904	...	4	
„ 1905	...	7	
Deaths from injuries 1900	...	16	} Not including newly-added Districts.
„ 1901	...	8	
„ 1902	...	17	
„ 1903	...	14	
„ 1904	...	15	
„ 1905	...	18	

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.					
	1900	1901	1902	1903	1904	1905	1900	1901	1902	1903	1904	1905	1900	1901	1902	1903	1904	1905
Sanitary Hospital ...	7	7	8	4	10	15	2	2	1	0	2	0	9	9	9	4	12	15
Sanatorium, B'mth.	0	0	0	0	0	1	5	5	0	2	2	4	5	5	0	2	2	5
Royal Victoria Hos- pital ...	15	16	10	23	14	22	30	21	12	12	22	18	45	37	22	35	36	40
Firs Home ...	3	1	2	2	1	1	10	10	19	9	19	13	13	11	21	11	20	13
Royal Boscombe and WestHants H'pital	12	5	12	9	20	16	3	7	2	6	8	4	15	12	14	15	28	20
St. Joseph's Home ...	2	0	0	1	2	1	3	6	2	3	3	4	5	6	2	4	5	5
Herbert Home ...	0	0	0	0	0	0	0	1	0	0	2	2	0	1	0	0	2	2
Hahnemann Home...	0	0	0	1	0	0	0	2	0	0	4	0	0	2	0	1	4	0
Springb'rne Orphnge.	0	0	1	1	0	1	0	0	0	0	1	0	0	0	1	1	1	1
Home of Good Hope					0	1					11	3					11	4
House Beautiful Con- valescent Home	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	0	0
Victoria Home for Nurses ..	0	2	0	1	1	0	6	2	1	4	7	2	6	4	1	5	8	2
Cripples' Home, Westbourne ..	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0
Sanatorium, Pokes- down ..			0	0	0	0			5	7	3	7			5	7	3	7
Convent of the Cross, Pokesdown ...			0	0	0	0			1	1	0	1			1	1	0	1
St. Luke's Home, Pokesdown ...			0	0	0	0			1	0	2	0			1	0	2	0
Totals	39	31	33	42	48	58	59	56	45	46	86	57	98	87	78	88	134	115



Of the total number of deaths recorded during the past year, I note there were 189 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)						
	1900.	1901.	1902.	1903.	1904.	1905
At 70 years of age	6	10	10	5	14	11
" 71 "	5	7	9	11	7	11
" 72 "	6	5	9	16	16	14
" 73 "	8	6	11	15	9	6
" 74 "	14	8	18	12	12	21
" 75 "	11	12	11	12	13	16
" 76 "	9	10	6	10	8	12
" 77 "	5	7	8	9	14	11
" 78 "	7	9	19	8	9	10
" 79 "	5	2	10	13	9	13
" 80 "	2	5	5	11	6	8
" 81 "	9	8	3	10	8	9
" 82 "	5	8	7	7	11	6
" 83 "	6	6	7	6	11	6
" 84 "	6	2	8	3	7	7
" 85 "	3	6	2	1	12	3
" 86 "	5	1	3	1	6	11
" 87 "	1	0	5	2	2	1
" 88 "	6	2	0	6	2	0
" 89 "	0	1	2	0	2	4
" 90 "	2	1	1	0	3	4
" 91 "	1	3	2	2	0	1
" 92 "	0	1	1	0	0	1
" 93 "	1	0	2	2	0	1
" 94 "	0	0	1	0	0	1
" 95 "	0	0	1	0	0	0
" 96 "	0	1	0	1	0	0
" 97 "	0	0	0	0	0	1
" 98 "	0	0	0	0	0	0
" 99 "	0	0	0	0	0	0
" 100 "	0	0	0	0	0	0
Totals	123	121	161	169	181	189

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.*					
1	2	3	4	5	6	7	8	9	10	11	12.	13.
1895	47000	810	17.02	104	128.3	603	12.7	59	150	NO RECORDS	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
1904	64000	1101	17.2	123	111.7	872	13.62	134	260		512	9.56
Averages for Years 1895-1904.	56913	883	15.54	103	118.3	692	12.20	87	203			486
1905	66000	1110	16.3	92	82.8	836	12.66	115	227		609	9.23

\*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 1905, in the whole County Borough.

TABLE No. 4, L.G.B.

Deaths at the subjoined ages of "Residents" whether occurring in or beyond the district

Causes of Death.	All ages	Deaths at the subjoined ages of "Residents"						Total deaths whether of Residents or Non-Residents in Public Institutions in the district.
		Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	
Small-pox ...	—	—	—	—	—	—	—	—
Measles ...	2	1	—	—	1	—	—	—
Scarlet fever ...	1	—	1	—	—	—	—	—
Whooping-cough...	2	1	1	—	—	—	—	—
Diphtheria & membranous croup ...	15	—	9	4	2	—	—	15
Croup ...	—	—	—	—	—	—	—	—
Fever {	Typhus ...	—	—	—	—	—	—	—
	Enteric ...	1	—	—	—	1	—	—
	other continued ...	—	—	—	—	—	—	—
Epidemic influenza	4	—	—	—	—	2	2	—
Cholera ...	—	—	—	—	—	—	—	—
Plague ...	—	—	—	—	—	—	—	—
Diarrhoea ...	12	8	3	—	—	—	1	—
Entiritis ...	4	3	—	—	—	1	—	1
Puerperal fever ...	—	—	—	—	—	—	—	—
Erysipelas ...	1	—	—	—	—	—	1	—
Other septic diseases	—	—	—	—	—	—	—	—
Phthisis (Pulmonary Tuberculosis)	138	—	1	—	30	107	—	32
Other tubercular diseases ...	32	5	7	9	4	6	1	3
Cancer, malignant disease ...	73	—	—	—	—	42	31	8
Bronchitis...	34	3	4	—	1	11	15	—
Pneumonia ...	41	11	3	2	1	13	11	5
Pleurisy ...	1	—	—	—	—	1	—	—
Other diseases of Respiratory organs	—	—	—	—	—	—	—	—
Alcoholism	16	—	—	—	—	13	3	2
Cirrhosis of liver }								
Venereal diseases...	2	1	—	—	—	1	—	—
Premature birth ...	30	30	—	—	—	—	—	1
Diseases and accidents of parturition ...	7	1	—	—	3	3	—	—
Heart diseases ...	143	—	—	9	5	60	69	13
Accidents ...	18	4	1	1	5	6	1	7
Suicides ...	7	—	—	—	—	6	1	—
All other causes ...	252	24	14	12	6	77	119	28
All causes ...	836	92	44	37	58	350	255	115

TABLE No. 5, L.G.B.

INFANTILE MORTALITY during the year 1905.

Deaths from stated causes in Weeks and Months under One Year of age.

Cause of Death.		Under 1 week	1-2 weeks	2-3 weeks	3-4 weeks	Total under 1 month	1-2 months	2-3 months	3-4 months	4-5 months	5-6 months	6-7 months	7-8 months	8-9 months	9-10 months	10-11 months	11-12 months	Total Deaths under One year
All Causes	Certified ...	27	3	6	1	37	9	9	2	7	4	5	6	3	5	1	1	89
	Uncertified	1				1		1			1							3
Common Infectious Diseases	Small-pox ...																	
	Chicken-pox																	
	Measles																	
	Scarlet Fever																	
	Diphtheria:																	
	Croup																	
Diarrhoeal Diseases	Whooping Cough												1					1
	Diarrhoea, all forms						2	1		2		3						8
	Enteritis <i>not tuberculous</i>						1	2										3
	Gastritis, Gastro-intestinal Catarrh							1										1
Wasting Diseases	Premature Birth	15	3	1		19												19
	Congenital Defects	1		2		3												3
	Injury at Birth	3				3												3
	Want of Breast Milk							1										1
	Atrophy, Debility, Marasmus	3		2		5		1	1	1								8
Tuberculous Diseases	Tuberculous Meningitis							1		1	1		2					5
	Tuberculous Peritonitis																	
	Tabes Mesenterica																	
	Other Tuberculous Diseases														1			1
Erysipelas																		
Syphilis							1										1	
Rickets																		
Meningitis <i>not tuberculous</i>																		
Convulsions	3		1	1	5	2			1	2				1	1			12
Bronchitis							1	1				1			1	1		5
Laryngitis														1				1
Pneumonia							2	1	1	1		1	1	1				9
Suffocation, overlaying	2				2					1			1					4
Other Causes..									1				2				1	4

## INFECTIOUS DISEASES.

## ZYMOTIC DEATH RATE.

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

Year.	Small Pox.	Diphtheria.	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
1905	0	15	*1	†1	1	0	18	'27

\*The death recorded as from Scarlet Fever was in my opinion an error of diagnosis. It had relation to a death which occurred in the central ward, and death had occurred before receipt of notification. On enquiries I had great doubts of the correctness of the diagnosis.

† In respect to the death from Typhoid this was notified two or three weeks before death. An offer was made to remove the case to the Isolation Hospital and was refused. Vidals Test was applied, and there was no characteristic re-action. I had doubts also of the correctness of this diagnosis.

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.	Chicken Pox.	TOTALS for each Month.
January ...	7	11	0	—	3	—	—	—	—	1	—	22
February ...	10	14	1	—	1	—	—	—	—	7	—	33
March ...	5	7	1	—	2	—	—	—	—	8	—	23
April ...	7	12	0	—	1	—	—	—	—	6	—	27
May ...	3	8	2	—	3	—	—	—	—	5	—	21
June ...	12	5	0	—	2	1	—	—	—	7	—	27
July ...	5	3	0	—	0	—	—	—	—	9	—	17
August ...	3	3	0	—	2	—	—	—	—	6	—	14
September	4	2	1	—	4	—	—	—	—	16	—	27
October ...	4	11	2	—	4	—	—	—	—	90	—	111
November	5	7	1	—	3	—	—	—	—	69	10	95
December...	1	12	1	—	5	—	—	—	—	65	13	97
Total	66	96	9	—	30	1	—	—	—	289	23	514

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

TABLE No. 3 (L.G.B.)

Disease.	At all Ages.	Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.	No. of cases removed to Sanitary Hospital.
Small Pox ...	—	—	—	—	—	—	—	—
Cholera ...	—	—	—	—	—	—	—	—
Diphtheria ...	96	2	26	49	13	6	—	89
Membranous Croup	1	—	1	—	—	—	—	—
Erysipelas ...	30	1	1	1	3	21	3	2
Scarlet Fever...	66	1	21	29	11	4	—	65
Typhus Fever	—	—	—	—	—	—	—	—
Enteric Fever	9	—	1	2	—	6	—	6
Relapsing Fever	—	—	—	—	—	—	—	—
Continued Fever	—	—	—	—	—	—	—	—
Puerperal Fever	—	—	—	—	—	—	—	—
Plague ...	—	—	—	—	—	—	—	—
Measles ...	289	3	142	125	13	6	—	1
Chicken Pox (from Nov. 13/05)	23	—	15	8	—	—	—	—
Totals	514	7	207	214	40	43	3	163

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

Disease.	All at Ages.	Removed to San. Hosp.	Nursed at Home.	Total Deaths.	Died in Hos-pital.	Died at Home.
Small Pox ...	—	—	—	—	—	—
Cholera ...	—	—	—	—	—	—
Diphtheria ...	96	89	7	14	14	—
Membranous Croup ...	1	—	1	1	1	—
Erysipelas ...	30	2	28	1	—	1
Scarlet Fever...	66	65	1	1	—	1
Enteric Fever ...	9	6	3	1	—	1
Relapsing Fever ...	—	—	—	—	—	—
Continued Fever ...	—	—	—	—	—	—
Puerperal Fever ...	—	—	—	—	—	—
Plague ...	—	—	—	—	—	—
Measles ...	289	1	288	—	—	—
Chicken Pox (From Nov. 13th, 1905...	23	0	23	—	—	—
Totals	514	163	351	18	15	3

## MEASLES.

During the year we have had to contend with a rather fierce outbreak of Measles, mainly in one Ward, viz., the Malmesbury Park Ward; the disease did not extend to any great extent to the other districts.

This outbreak occurred in the months of October and November, and gradually subsided in December. The following has been the procedure that has been adopted by the Sanitary Department in respect to this outbreak :—

In every case a printed card has been issued to the parents, giving simple instructions as to the infective nature of the disease, and the various precautions that are necessary to be taken. Children living in the same household have been prevented from attending school, and no child has been allowed to return to school until medically certified as free from infection. In all cases of the notification of this disease the sanitary conditions of the house where the case occurs have been enquired into by the Sanitary Inspector, and all defects remedied.

The educative work in respect to this outbreak has been very considerable, and I am glad to note that the indirect deaths, which in some towns are often so high, have in our own Borough only been *two*.

## SMALL POX.

Under this heading no cases of this disease have been notified. In April I received a telegram from Dr. Simpson, the Medical Officer of Health for the urban district of Acton, to say that he had removed a case of variola from a house lately occupied by a young man who had been living at Bournemouth. Immediately on receipt of this wire I visited his residence and obtained the following particulars :—A. W. F. had landed at Dover on March 12th from the ss. Africa, he went from Dover to Acton and stayed there three days because he felt ill, he then came on to Bournemouth on March 15th. He had lately come from Johannesburg, stayed a week at Cairo, stopped at Venice and Paris. He was

seen here by a doctor, and he was thought, I believe, to be suffering from Chicken Pox.

At the time of my visit I found evidences of his having recently suffered from a spotty rash, but I saw it in too late a stage to diagnose. I also gathered that a servant who had been living with this family had gone home ill to a neighbouring district and had been removed to an isolation hospital. With the consent of the medical attendant I saw this girl at the hospital and found her suffering from true variola. The case was not a serious one, but the diagnosis to my mind was very clear. I immediately intimated my opinion on this case to the medical attendant, and he and his Committee agreed with me that it would be advisable that no other cases of infectious disease should be treated in this hospital, and that this hospital should be used solely for cases only of this disease that might occur in the districts.

I advised your Committee that it would be desirable in the interests of our own borough as well as that of the neighbouring districts that we should isolate their cases of the ordinary infectious disease in our hospital for the time being, they on their part agreeing to use their hospital for this disease only. One other case only was removed from our district, and one from the adjoining district of Poole Rural. Both these cases had been brought into contact with the original case that had come from Acton. I thought it necessary to have my diagnosis in these cases corroborated by two other medical men, and they confirmed. I took charge of their hospital during this outbreak.

In May I was requested by a doctor to see a case in consultation with him, this also was a well marked case of Small-pox. On my advice this patient was immediately removed to the Branksome Hospital and her two nurses placed in strict quarantine for fourteen days. This last case did not seem to have any connection with the previous cases, and we were unable to trace its relation to any other case.

These were the only cases in the Borough during the year, and I think we were extremely fortunate in thus limiting the outbreak.



## SCARLET FEVER.

During the year there has only been 66 cases of Scarlet Fever notified. I hope this satisfactory decline will become less and less, as I have every hope that the great value of our Isolation Hospital in preventing the undue spread of this disease will be made manifest.

## DIPHThERIA.

There has been a slight increase of notifications under this head. I can only repeat, as mentioned last year, that the clinical evidences of this complaint in the great majority of cases are not well marked.

Nearly all the cases were as quickly as possible isolated in the Hospital, and not discharged therefrom until proved free from the specific germ.

The deaths under this head numbered 15. In several of the cases the toxic effect of the disease had had the start of the remedial measures, and death occurred in the Hospital very soon after admission.

## ENTERIC FEVER.

Nine 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. 1905.	Name.	Age.	Locality.	Probable cause.
Mar. 13	C. J.	31	West Cliff Ward.	Patient had obtained oysters from Poole. This case was nursed at home.
April 29	J. B.	Adult	Central Ward.	Ditto.
May 1	N. M.	26	East Cliff Ward.	Imported case from South of France.
May 8	E. B.	35	Southbourne Ward.	Patient nursed in Royal V. Hospital. Cause unknown.
Sept. 16	A. C.	11	Boscombe West Ward.	Cause probably due to the eating of cockles which had been obtained on the beach from a Poole hawker.
Oct. 21	M. C.	34	West Cliff Ward.	Patient had eaten oysters.

Oct. 27	F. H.	36	West Cliff Ward.	Patient had obtained oysters from Poole. This was a bad case, and the patient had a very precarious illness.
Nov. 5	W. G.	30	Branksome Ward.	This patient had oysters given to him which had been purchased from a man from Poole.
Dec. 27	M. T.	36	East Cliff Ward.	Defective sanitary conditions found at her own home at Surbiton.

Of these cases seven were removed to the Sanitary Hospital, where they all made a good recovery. Two were nursed at home.

### SANITARY HOSPITAL.

During the past year 261 patients have been admitted into the Sanitary Hospital, and of these 15 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 2, 3, and 4 I show the cost of patients and staff during the past five 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.	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	284	1.76	Bournemouth Improvement Act passed. Iron Pavilion erected (8 beds).
1894	42,000	106	8	3	14	13	22	1 Diph.	144	1.38	S.F. very prevalent all over the country. Three Berthon Huts purchased (9 beds).
1895	47,000	92	15	5		6	10	1 Variola	118	5.93	Variola outbreak in the Springbourne Ward. Three of these 14 cases lived outside the Borough, but were caused by cases in our District.
1896	50,000	89	22	8	1	17	6	4 S.F. 3 Diph.	137	3.65	New Pavilion opened, giving additional 26 beds.
1897	53,008	104	27	6		13		2 Diph. 1 Ty.	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 S.F. 1 Brain	123	1.75	Berthon Huts re-painted.
1899	58,480	271	77	4		12		5 S.F. 2 Diph	123	1.75	
1900	60,104	115	58	1		7		1 Pneu.	364	2.3	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	11 Deaths (see report)	181	3.8	In addition, 23 cases were admitted from the Urban District of Pokesdown (11 S.F. and 11 Dip., 1 Enteric).
1902	61,628	61	72	9	1	35	9	7 Deaths.	167	6.5	Including cases from added Districts.
1903	63,000	122	70	7		21		1 Variola.	187	4.6	Ditto. Old Pavilion painted.
1904	64,000	95	85	12		27	1	1 Heart.	220	1.8	New Observation Wards being erected, also large additions to administration block. 10 cases of Dip. and 1 S.F. were admitted from District of Mudeford.
1905	66,000	83	110	8		45		1 Pneu.	220	5.4	Observation Wards completed and used.
								4 Dip.	261	5.7	Administrative block. Alterations completed, grounds re-modelled and altered.
								6 Dip. 1 S.F.			13 cases admitted from the Districts of Poole, Christchurch, Branksome, Hordle, and Canford.
								1 Ery.			
								3 Pneu.			
								1 Phth.			
								15			



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		937 14 4	42 12 6	897 1 10	5 19 8	891 2 2	Stockholders
2717 8 0	2708 12 7		1795 7 5	88 10 0	1706 17 5	3 16 5	1703 1 0	"
610 13 8	608 9 0		365 9 5	19 15 0	345 14 5	1 18 8	343 15 9	"
1100 11 0	1097 0 1		754 19 5	32 5 0	722 14 5	3 16 0	718 18 5	"
4116 0 0	4004 9 9		3052 6 7	143 17 6	2908 9 1	4 12 3	2903 16 10	"
624 0 0	607 2 7		480 15 5	18 15 0	462 0 5	4 6 10	457 13 7	"
160 0 0		160 0 0	135 2 0	2 0 11	133 1 1		133 1 1	Ancient Order of Forester's Society
		3800 0 0	3800 0 0	131 0 8	3668 19 4		3668 19 4	National Provincial Bank of England.
10728 12 8	10421 0 8	3960 0 0	11321 14 7	476 16 7	10844 18 0	24 9 10	10820 8 2	
		£14381 0 8						

## CREMATORIUM.

The question of the establishment of a Crematorium has been considered by the Burials Committee, and they have referred the matter to the Sanitary Committee. Owing to the pressure of work on this Committee the matter has remained up to present in abeyance.

## WATER SUPPLY.

The public water supply to the Borough, supplied by the Bournemouth Gas and Water Company, has on the whole been satisfactory. I append herewith copies of two analyses of samples of water taken from this source.

## LISTER INSTITUTE OF PREVENTIVE MEDICINE.

25/9/05.

Report on Examination of a sample of water received from Bournemouth on September 12th, 1905.

The sample was marked "Reservoir at Pumping Station, Wimborne, 1.15 p.m."

## GENERAL CHARACTERISTICS.

The sample was clear and free from smell.

## ANALYTICAL DATA.

Chemical.	Parts per 100,000.	Chemical.	Parts per 100,000.
Suspended Matter	...	Nitrogen as Nitrites	None
Dissolved Solids	30.6	Nitrogen as Nitrates	0.049
Chlorine	2.5	Oxygen absorbed from	
Alkalinity	25.	Permanganate at 80° F.:—	
Permanent Hardness	5.	(a) 15 minutes	...
Free & Saline Ammonia	0.007	(b) 4 hours	0.033
Albumenoid Ammonia	0.0043	Lead	None

## BACTERIOLOGICAL.

Total organisms in 1 c.c. growing at 22 o.c. ... 81  
do. do. at 37 o.c. ... 34

A typical coli-like organism isolated from 250 c.c. and from 50 c.c., but not from 25 c.c., no typical b. coli present in 300 c.c.

No exception can be taken to this water.

(Signed) ARTHUR HARDEN.  
S. E. BOYCOTE.

LISTER INSTITUTE OF PREVENTIVE MEDICINE.

25/9/05.

Report on Examination of a sample of water received from Bournemouth on September 12th, 1905.

The sample was marked "No. 5 Filter, Alderney, 12/9/05."

GENERAL CHARACTERISTICS.

The sample was clear and free from smell.

ANALYTICAL DATA.

Chemical.	Parts per 100,000.	Chemical.	Parts per 100,000.
Suspended Matter	...	Nitrogen as Nitrites	None
Dissolved Solids	29.6	Nitrogen as Nitrates	0.05a
Chlorine	2.2	Oxygen absorbed from	
Alkalinity	20.5	Permanganate at 80° F. :—	
Permanent Hardness	4.5	(a) 15 minutes	...
Free & Saline Ammonia	Trace	(b) 4 hours	0.026
Albumenoid Ammonia	0.002	Lead	None

BACTERIOLOGICAL.

Total organisms in 1 c.c. growing at 22 o.c., equals 70.

do. do. 37 o.c. „ 7.

No coli-like organisms present in 300 c.c.

No exception can be taken to this water.

(Signed) ARTHUR HARDEN.  
S. E. BOYCOTE.

In respect to the West Hants Water Company, the water supplied from this Company does not quite satisfy me. Chemical analyses give a fairly satisfactory result, but the bacteriological examination indicates probable conditions of pollution.

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 & Homework.**

I.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Inspections.	Number of Written Notices.	Prosecutions.
Factories (including Factory Laundries)	63	13	—
Workshops (including Workshop „	1570	107	—
Workplaces ...	51	7	—
Homeworkers' Premises ...	197	1	—
Total	1881	128	—

## 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 ...	17	17	—	—
Want of ventilation ...	3	3	—	—
Overcrowding ...	3	3	—	—
Want of drainage of floors ...	2	2	—	—
Other nuisances ...	7	7	—	—
Sanitary accommodation—				
Insufficient ...	9	9	—	—
Unsuitable or defective	36	36	—	—
Not separate for sexes ...	2	1	—	—
<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 regards lists of outworkers (s. 107) ...	3	3	—	—
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 small-pox (s. 109) ...	—	—	—	—
Other offences ...	—	—	—	—
	82	81	—	—

## 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) ...	44
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. Inspectors ...	7
Reports (of action taken) sent to H.M. Inspectors ...	7
Dangerous and unfenced machinery in Factories not registered as such ...	2
<i>Underground Bakehouses (s. 101):—</i>	
Certificates granted during the year ...	—
In use at the end of the year ...	6



	Number of Lists. Outworkers	
<i>Homework—</i>		
<i>Lists of Outworkers (s. 107):—</i>		
Lists received ... ..	51	237
Addresses of outworkers—		
Forwarded to other Authorities ...	24	—
Received from other Authorities ...	1	—
	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) ... ..	—	—
Workshops on the Register (s. 131) at the end of the year 1905 ... ..	560	
Workshops registered during the year ... ..	137	
Workshops measured and cards <i>re</i> cubic space pro- vided ... ..	70	

A list of the premises registered classified according to the trades will be found in the Sanitary Inspector's report.

## FOOD SUPPLIES.

### SALE OF FOOD AND DRUGS ACTS, 1875, 1899.

The work of regularly and frequently inspecting the food supplies of the Borough, taking samples under the Sale of Food and Drugs Acts and supervising the dairies, cowsheds, and milkshops is in the hands of Mr. Christie.

**UN SOUND FOOD.**—During the year 1905, 737½ lbs. meats, 64 lbs. fruits, 38 lbs. fish, and 6 tons of potatoes were destroyed as unfit for sale as food.

Under the Food and Drugs Acts, 300 samples were procured and submitted to the Public Analyst for analysis. Of this number, 223 were reported genuine, 35 as of poor or doubtful quality, and 42 as adulterated or deficient. The adulterated samples were as follows: 8 samples butter, 8 cheese, 2 drugs, 22 milk, and 2 sausages.

Salicylic acid was found in two samples of quinine wine, and one sample of bottled cherries, but in each case in so small a quantity as not to be injurious to health.

**BORIC ACID.** The presence of boric acid was detected in 39 samples, viz., butter 12, new milk 2, margarine 15, and sausages 10. In three samples only was boric acid found in quantity above the limit of 0.5 per cent., and these being butter (0.6 per cent.) and sausages (0.63 and 0.7 per cent.). In the two samples of milk containing boric acid in quantities of 28 grains and 35 grains per gallon, explanations were made by the vendors and letters of warning were sent.

**LEAD.** The presence of lead was detected in 15 samples, viz., seven cream of tartar and eight tartaric acid. In 14 of these samples the amount of lead was very small indeed, but in one sample of cream of tartar it amounted to 1.1 grains of lead per pound. A warning letter was sent to the vendor.

#### BACTERIOLOGICAL EXAMINATION OF MILK.

Fifty-two samples of milk were procured by the Food Inspector as the milk was delivered by the farmers to the retailers in the town. These samples were then submitted to the Borough Bacteriologist for microscopic examination with the specific view of detecting disease organisms.

In none of the 52 samples was the bacillus tuberculosis found, but 15 samples were looked upon with great suspicion owing to the presence of blood corpuscles or pus cells.

These 52 samples were also examined for excess of cellular elements, bacteria, or presence of foreign matter in the milk, with the result—27 samples were found to be clean or normal, while 25 samples showed either an excess of bacteria, of epithelium, or of foreign matter.

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

Farmers visited and warned	...	12
Letters of warning sent	... ..	17
Copies of Bacteriologist report sent		32
Receivers of milk warned to deal with consignor	... ..	3

In respect to the bacteriological examination of milk having special reference to tuberculosis it is worthy of note that in all the samples examined the milk was proved to be free from this germ. From the Bacteriologist Report it will be noted that considerable reformation in dairy methods is needed, more especially applying to the farms, where the milk is not so clean as it ought to be.

I am of the opinion that much educative work is required to be accomplished before this unseemly debris is absent. I would suggest that your Council should endeavour to use their influence with the Agricultural Societies in the counties of Hants and Dorset to try and obviate this. I would suggest that a Challenge Cup might be presented to that farmer in either of these counties who can send their milk to the purveyors free from this objectionable deposit, and that money prizes should be allotted to those of the farmer's employees who succeed most completely in freeing the milk from this objectionable mixture.

#### DAIRIES, COWSHEDS, AND MILKSHOPS ORDERS.

The number of premises now registered under the above Orders are 201.

All the Cowsheds and Dairies in the Borough have been regularly inspected, and the regulations relating to cleanliness, limewashing, and general sanitation enforced.

From the Inspector's Report it will be seen that considerable improvements have been carried out at various premises, and that five entirely new dairy premises have been erected.

During the last five years a marked improvement has been made in the larger Dairies of the Borough, especially in the provision made for storing and handling the milk and milk vessels, and in many cases the immediate surroundings of the Dairy have been improved. In the smaller Dairies an improvement is also shown; many of these places have now a small dairy-shed entirely isolated from other buildings and in accordance with the Regulations, whereas formerly a house scullery

or other small place attached to other buildings was utilised as a milk store or washhouse, although the provisions relating to the drainage, water supply, ventilation, &c., were not satisfactory.

Much has still to be done yet in the way of improving other Dairy premises before all will be in accordance with the Regulations, but it is hoped that those dairymen will, when called upon to do so by our Inspector, carry out the necessary improvements as whole-heartedly and as well as others in their trade have done.

### ICE CREAMS.

Eight samples of Ice Cream were submitted to the Bacteriologist during the season. His reports on these samples show that two were samples of relative cleanliness and two fair samples of cleanliness, while four were grossly polluted with putrifactive organisms, micrococci moulds, and yeasts.

With the Food Inspector I inspected several of the premises where some of the samples of Ice Cream had been manufactured, and in two places where the surroundings were scarcely suitable for the manufacture and sale of such an easily polluted article as Ice Cream the vendors were advised to cease the manufacture and sale. This, I am pleased to say, they did.

The Food Inspector has from time to time inspected those places where Ice Cream is made on a large scale, and paid special attention to the hygienic conditions of the place and its surroundings.

A Special Report on the powers of inspection of Ice Cream Stores was presented to your authority by the Food Inspector during the year.

### DRAINAGE WORKS.

Further progress has been made with the drainage of Winton—the coupling up of the sewer in the Wimborne Road in the neighbourhood of St. John's Church being now completed, whilst a start has been made with an out-fall sewer to connect with Moordown, which

will complete the drainage of all Public Roads in this district.

Charminster, Richmond Park and Richmond Wood Roads have all been completely drained.

Under the Private Street Works Act the following roads have also been dealt with, viz. :—

Hankinson Road  
Osborne Road  
Scotter Road  
Abinger Road  
Roberts Road  
Leap Hill Road  
Spurgeon Road  
Portland Road  
York Road  
Muscliff Road

#### WINTON DISTRICT.

The work of connecting house drains to the new sewers in this district has been rapidly proceeded with during the past year.

29 Roads have now been sewered by your authority, and 858 houses have been drained. This district has become much improved, and numberless nuisances have been abated. The good work that has been effected by strict sanitary supervision has increased the letting and selling value of houses, and added very materially to the comfort and well-being of the inhabitants.

There are several private roads in this district which urgently require making up under the Private Street Works Act. As these roads are, in some instances, in a very bad state of repair, I trust your Authority will soon see their way to call the various property owners' attention to this matter with the view to making up and sewerage these roads under this Act.

On the whole, the record of the sanitary conditions of the County Borough for the year have been satisfactory. The Department has been able to cope successfully with some menaces that might have endangered our well-being.

I think it right here to testify to the good spirit and earnest endeavour which animates the whole of the Inspectorial staff and clerks. In them your Council have a body of skilled and earnest men, whose endeavour it is to promote the sanitary well-being of the County Borough.

I remain, Gentlemen,

Yours obediently,

PHILIP W. G. NUNN,

Medical Officer of Health.

I have a great deal to say in the good part  
and more to say than that which the whole of  
the English people are not yet acquainted with  
and which I have not time to say more of  
and which I have not time to say more of  
and which I have not time to say more of

and which I have not time to say more of  
and which I have not time to say more of  
and which I have not time to say more of  
and which I have not time to say more of  
and which I have not time to say more of

COUNTY BOROUGH OF BOURNEMOUTH.

---

ANNUAL REPORT

OF THE

BOROUGH BACTERIOLOGIST

*For the Year ending 31st December, 1905.*

---

TO THE MAYOR AND TOWN COUNCIL,  
BOURNEMOUTH.

GENTLEMEN,—

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

During the past twelve months I have made 449 bacteriological investigations—this shows an increase of 32 as compared with the previous year.

The investigations in question consisted of :—

Throat swabs <i>re</i> Diphtheria and throat disorders of a doubtful nature	...	...	...	327
Milk samples concerning Tuberculosis	...			52
Milk samples with reference to cleanliness, excess of bacteria, pus, blood, and other undesirable constituents	...	...	...	52
Blood examinations for typhoid fever, etc.	...			8
Samples of Ice-cream for bacterial impurities	...			8
Batch of Oysters, in relation to typhoid fever and sewage contamination, etc.	...	...	...	1
Pathological examination	...	...	...	1

---

449



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

In January	...	51	examinations	were	made.
February	...	42	"	"	"
March	...	33	"	"	"
April	...	39	"	"	"
May	...	48	"	"	"
June	...	30	"	"	"
July	...	40	"	"	"
August	...	13	"	"	"
September		19	"	"	"
October	...	44	"	"	"
November		51	"	"	"
December		39	"	"	"
Total		449			

#### DIPHThERIA AND ThROAT DISORDERS OF A DOUBTFUL NATURE.

As usual, the number of examinations under the above heading is 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 everyone 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, 1905 :—

32	patients	required	1	examination	32
60	”	”	2	”	120
22	”	”	3	”	66
14	”	”	4	”	56
7	”	”	5	”	35
3	”	”	6	”	18
					— — —
					327

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 1905 are recorded in this report. The additional examinations took place either at the end of 1904 or the beginning of 1906, or were done by me for private medical men before the patients went into hospital.

FREE SWABS.—As regards the gratuitous examination of throat swabs for private medical men, in cases where the patients or parents are unable to pay a fee for bacteriological examination, the demand has been very moderate. From March, when the order was first put into force, until the end of the year, I received only 26 free swabs to report upon. So far, I think, the experiment has worked satisfactorily ; but I would suggest that the wage limit might with advantage be modified or not strictly enforced in certain deserving cases which

are precluded by the present rigid conditions. The concession would probably curtail hospital maintenance expenditure by diminishing the number of doubtful cases sent to the Sanitary Hospital for "observation."

### MILK.

During the year I have made 104 investigations concerning the various milk supplies of the Borough. 52 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.

As regards the other series of milk examinations, I am bound to express disappointment at the results. Several years ago, when I first undertook the systematic examination of milk in this neighbourhood, I hoped that in the event of defects being revealed, it would be only necessary to draw attention to them in order that the desired improvement should follow and be maintained. But that hope has unfortunately proved a very delusive one. Each year it has been my duty to report unfavourably concerning a relatively high percentage of contaminated milk samples, and in each Annual Report I have written at length upon the urgent need of reform to prevent frequent pollution and ensure a clean and wholesome milk supply.

A considerable proportion of the past year's samples have contained an excessive amount of "dirt"—mainly cow manure, and with the latter must always be included a profusion of bacteria. It will be readily admitted that dirty milk is objectionable, but from a bacteriological standpoint the question is more serious than that. Bacteria in excess (1) cause milk to go bad very quickly, (2) they markedly alter and diminish the nutritive value of milk, and (3) bacteria in milk are the acknowledged cause of a large class of gastro-intestinal disorders amongst infants and others whose diet is chiefly milk.

In addition to the dirty milks referred to, several samples contained pus ("matter"), blood, and other elements indicative of udder or milk-gland disorders. The presence of these products of disease is sufficient to condemn any milk, and the persons responsible for such wilful indifference deserve to have their names and offences published in the Press as much as the persons who adulterate milk. I have taken the trouble to obtain the opinions of several practical cow-keepers, as to whether a cowman would be likely to perform the operation of milking without noticing an existing udder disorder, if of sufficient severity to produce pus, blood, etc. My informants all considered it impossible for a man to milk under the conditions mentioned without at least knowing something to be very wrong—in which case it would be the cowman's duty to withhold the milk from the dairy supply. This information from practical men in the trade confirms my own previous views, and shows justification for such strong terms as wilful indifference.

In officially stating these unpleasant facts, I am particularly anxious that the uninitiated should not jump to the conclusion that the milk supply of Bournemouth is inferior to other places. Such an idea would be absolutely wrong. The condition of Bournemouth milk is infinitely better than that of most cities and towns in England, but that is not enough.

The milk supply throughout the country is in a most unsanitary condition. There is practically no guarantee against filth or disease in any milk. It is only necessary to read the numerous reports issued by various health authorities to comprehend the deplorable extent to which milk is contaminated. One example will serve to show that these statements are based on hard, irrefutable facts. The Medical Officer of Health for the City of London recently issued a report, giving results of milk examinations. The various milks were derived from farms in 22 counties, and intended for use in London. One-third of the samples were so polluted as to be unfit for use as food, and 9 per cent. were infected with the bacillus tuberculosis. The report says,

"These results are sufficiently striking, and clearly point to the grossest carelessness, amounting in fact to criminal negligence, in dealing with such an important article of food," &c. Innumerable other instances might be given to show the prevalence of milk pollution, but it must be common knowledge by this time.

I would point out that there is no reason why Bournemouth should not be head and shoulders above other places in the matter of a clean and pure milk supply. Such a desirable condition might, without much difficulty, be attained by simply methodical precautions. But to succeed it is necessary to overcome evils which exist at places outside the jurisdiction of Bournemouth, viz., the *Dairy Farms*. That is where at least two-thirds of the milk pollution occurs, and the contributing factors are: (a) dirty cows, (b) careless milkmen, and (c) insanitary surroundings. It is obviously futile to have Model Dairies if the milk brought to them is already fouled. I admit the great importance of modern methods concerning the cooling of milk, rapid transit, etc., etc., but I maintain that no measures to acquire clean milk will ever be successful until far more individual attention is devoted to the cows, the milkmen, and their immediate surroundings. In that direction lies the fundamental starting point for reform, for there can be focussed the main sources of contamination.

### ICE CREAMS.

These doubtful luxuries have been described as the happy hunting ground for microbes, and one of the few places where sundry germs may live and propagate without serious interference. It certainly is a fact that the majority of ice creams sold in the streets and small shops contain countless myriads of bacteria, putrefactive and otherwise. It is much to be regretted that children should be the innocent victims of this unwholesome food stuff. It is also to be deplored that the present laws are practically impotent to protect against the shortcomings of ice cream vendors.

During the summer of 1905 I submitted eight samples of ice cream to bacteriological examination, and

rendered full Reports upon the same to the Medical Officer of Health. Consequently it does not appear necessary to repeat in detail the results obtained. As a brief summary it may be stated that of the eight samples three were quite unfit to be eaten, owing to the excessive number of bacteria: the material was unquestionably putrescent in all three instances. Another sample was bad, but to a lesser degree. The remaining samples were fairly satisfactory.

### TYPHOID OR ENTERIC FEVER.

The number of examinations required in connection with the diagnosis of Typhoid Fever amounted to only eight for the whole 12 months. The number has always been low, but this is the lowest for several years, and if it had not been for the evils traceable to oysters, these particular bacteriological examinations would have been practically reduced to *nil*.

### OYSTERS.

For some years past a large section of the public has viewed oysters with considerable suspicion, and "total abstainers" are conspicuous by their numbers.

In many instances there certainly has been sufficient cause to justify the public in boycotting the oyster, and there is still ample evidence to show that the dangers so forcibly illustrated in the past have not yet been entirely eliminated.

It would be unjust to condemn all oysters because some are polluted with sewage or infected with Typhoid organisms. At the same time it must be recognised that beyond the assurance of the vendor we have no sort of guarantee that any oysters are free from the danger which has tarnished their reputation.

In November last I was instructed by the Medical Officer of Health to examine a batch of oysters purchased from a street hawker within the Borough. Several cases of Typhoid Fever had occurred about this time, and with each patient there was a history of oysters being previously eaten, and, further, the oysters were all derived from one locality.

Concerning the oysters submitted to examination I wrote an exhaustive Report, which is now the property of the Council, and can, I presume, be referred to by those interested. I had no hesitation in declaring the oysters to be grossly polluted with decomposing sewage matter, totally unfit for food, and a source of great danger to health.

In rendering an account of the bacteriological work carried out during the past twelve months I have written at some length upon certain side issues which I thought worthy of bringing before your notice. The views given have been expressed candidly, but without prejudice, and imperfections have been rendered conspicuous with the sole object of their being rectified.

In conclusion, I beg to express my indebtedness to the Medical Officer of Health, upon whose kind co-operation and assistance I can always rely.

I remain, Gentlemen,

Your obedient servant,

F. J. TANNER,

Borough Bacteriologist.

## COUNTY BOROUGH OF BOURNEMOUTH.

SANITARY DEPARTMENT,

March 16th, 1906.

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, 1905.

## FACTORY AND WORKSHOP ACT, 1901.

The total number of workshops, workplaces and laundries now registered in the Borough is 560, an increase of 84 on last year.

During the year 137 workshops have been registered and 70 rooms have been measured up, and cards *re* cubic space, &c., have been supplied to the occupiers.

The whole of the premises registered have been inspected during the year, the inspections have been made systematically, and as occasion has required, with the view of detecting any nuisance arising from overcrowding, insufficient ventilation, defective sanitary conveniences or uncleanness, and generally to see that the whole of the requirements of the Factory and Workshop Act relating to such places are complied with.

In all places where nuisances have been found to exist in, or about the premises, notice has been given to the owner or occupier calling upon them to remedy the defect, and it is very satisfactory to report that in



no case has it been necessary to take legal proceedings.

During the year, 1881 inspections have been made, and 128 written notices have been served.

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

Trade.	Premises Registered.	Number of Rooms Occupied.
Bakehouses ... ..	75	79
Dressmakers and Milliners...	114	161
Tailors ... ..	64	73
Bootmakers and Saddlers ...	57	61
Painters, Carpenters and Builders	48	57
Laundries ... ..	55	132
Kitchens of Restaurants, &c.	34	34
Metal Workers ... ..	28	32
Coachbuilders ... ..	14	25
Cyclemakers ... ..	12	15
Cabinetmakers and Upholsterers	12	23
Jewellers, &c. ... ..	7	12
Dental Workers ... ..	7	7
Stonemasons ... ..	5	5
Miscellaneous ... ..	28	36
	Total 560	Total 752

### BAKEHOUSES.

There are now 75 bakehouses occupied in the Borough, six of these being underground, and the remainder on or above the ground level.

The six underground bakehouses are certified by your Authority under Section 101 of the Factory and Workshop Act to be suitable as regards construction, light, ventilation, and in all other respects to be used as bakehouses.

The whole of the bakehouses in the Borough have been cleansed or limewashed as required by the provisions of the Act.

One new bakehouse has been built, and three of the old bakehouses have been closed during the year. In one instance the bakehouse was considered to be on sanitary grounds unfit to be used as a bakehouse, and the occupier, acting on the advice of reports made, closed the premises and removed his business to another bakehouse.

During the year structural alterations have been carried out and supervised in six instances in the ground level bakehouses.

### KITCHENS OF RESTAURANTS, COFFEE SHOPS, &c.

Thirty-six visits to these premises have been paid during the year, and five notices to cleanse walls and ceilings have been served, all of which have been complied with.

In making these inspections, special attention has been given to the cleanliness of larders, tables and cooking utensils, and these have been found to be very satisfactory.

In two of larger Restaurants, extensive structural alterations have been made, and they are now thoroughly up to date and satisfactory in every detail.

### HOMEWORK.

During the year 51 lists containing the addresses of 234 outworkers have been received. Twenty-four of these outworkers resided outside the Borough, and the usual particulars were forwarded to the Authorities of the district concerned. One address only was received from an Authority outside the Borough boundary.

197 visits were paid to outworkers' premises. Owing to the frequent inspections made, there has been a great improvement in the outworkers' workshops, and they may now be considered to be in a very satisfactory condition. In only one instance has it been found necessary to serve a notice for the abatement of a nuisance.

Two cases of infectious disease were notified in outworkers' premises during the year. In one instance

the patient was immediately removed to the Hospital, and the house disinfected ; in the other case (a case of measles) the patient was isolated at home apart from the workroom.

In each case the patient was a child, and the work being done in special rooms, to which the children had no access, it was not considered necessary to make an order prohibiting the work being given to the occupier of the house.

Three firms employing outworkers neglected to send in the required lists within the specified time. A letter of warning under your Authority was sent by the Town Clerk to each, and subsequently the lists were sent in.

### LAUNDRIES.

Besides the 55 registered laundries in the Borough there are a number of smaller laundries in which only one or two outsiders are employed, and thus they do not come under the Factory and Workshop Act. There is no doubt in many cases the number of employees is kept under three for the purpose of evading the Act. During the past year a list of these laundries has been kept, the premises have been frequently visited, and any nuisance found to exist has been dealt with as far practicable under the Public Health Acts.

Further experience has proved that these smaller laundries require periodical and regular inspection quite as much as the larger ones.

### 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 in or about a shop for a longer period than 74 hours, including meal hours, in one week.

During the year 532 visits have been paid to shops in the Borough under this Act, and it is pleasing to

note that in only one case has a young person been found to be employed more than 74 hours in a week.

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

Notices were delivered at each of these premises, with which the employers have since fully complied.

SEATS FOR SHOP ASSISTANTS ACT.—At the same time that inspections are made under the Shop Hours Act, enquiries are also made as to the provision of seats for female shop assistants.

In 129 shops visited during the year there were four instances in which the number of seats provided were insufficient.

The employers in each case were requested to provide the necessary number of seats, and these requests were subsequently complied with.

#### MIDWIVES ACT, 1902.

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

Of the 51 persons residing in the Borough known to be practising as midwives or engaged as maternity nurses, 29 took advantage of Section 2 of the Act, and were certified before the expiration of the period named in the Act, viz.: 31st March, 1905. After this date no woman can be admitted to the Roll of Midwives until she has had a specified course of training and passed the examination of the Central Midwives Board.

During the year 19 midwives have given notice to your Authority of their intention to practice in the Borough. Of these three are trained, and the remainder are certified on the ground of their having been in practice twelve months prior to the passing of the Act.

Visits have been paid to each of these midwives for the purpose of examining their case books, appliances, &c., and inquiring into their mode of practice.

Three of the midwives were found not to be

complying with the rules of the Central Midwives Board. They were reported to your Authority and required to attend a meeting of your Sanitary Committee, when, after being warned, they each promised that in the future they would carry out the rules.

Subsequent visits to these midwives showed that the warning had the desired effect.

The following is a list of the notices received from midwives during the year :—

Notifications of practice	...	...	19
„ <i>re</i> still-births	...	...	5
„ of sending for medical help			14
„ of death of child		...	1
„ of change of address		...	1

## PREVENTION OF CRUELTY TO CHILDREN ACT, 1904, AND EMPLOYMENT OF CHILDREN ACT, 1903.

During the year frequent and regular inspections of the Borough have been made after 9 p.m. for the purpose of detecting any contravention of the provisions of these Acts.

Seventeen children under the age of 14 years were found employed after 9 p.m., and in each case a letter of warning has been sent either to the parent or employer of the child.

In only one case has it been necessary to take legal proceedings.

When making inspections under the Shop Hours Act inquiries were also made as to the employment of children, and wherever children have been found to be employed, a circular letter pointing out the provisions of the Act has been sent to the employer.

Special visits have been paid to the hairdressers' establishments in the borough, but in no instance has any contravention of the Act been detected.

During the year six copies of licenses granted for children to take part in entertainments in premises licensed for public entertainments have been received.

On each occasion the place of entertainment has been visited, and the conditions of the license enforced. In two instances it has been found necessary to report contraventions of the licenses granted, but, after considering all the circumstances, your Authority decided not to prosecute, but sent letters of warning to the proprietors of the entertainments.

In January a child was found to be taking part in a performance at a place licensed by law for public entertainment contrary to the provisions of the Prevention of Cruelty to Children Act. The facts of the case were reported on the 13th January, and your Authority resolved that no action be taken.

### FOOD SUPPLIES.

The Food Inspector reports that the following is a summary of the works supervised or carried out by him under the Public Health Acts. For details as to the duties carried out by him under the Food and Drugs Act see report herewith appended :—

The shops in the Borough where food supplies are exposed for sale have been regularly inspected during the year. On 37 occasions the Inspector detected various unsound articles deposited or intended for sale as food, and found it necessary to seize and destroy the articles.

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

Meats	...	...	737½ lbs.
Fruits	...	...	64 „
Fish	...	...	38 „
Vegetables	...	...	13440 „
		Total	<u>14279½ lbs.</u>

### FRIED FISH SHOPS.

The eight fried fish shops in the Borough have been periodically inspected, and generally found in a satisfactory state.

One shop and store—the only one where difficulty was experienced with the occupier *re* sanitary conditions—was closed during the year.

Seven nuisances were abated during the year, alterations to premises supervised in two places, one yard paved, and water supply provided.

### SLAUGHTERHOUSES.

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

The quarterly limewashing as required by the By-Laws has on all occasions been carried out after verbal notice given by the Inspector.

Alterations to improve the slaughterhouse proper, and the accommodation for sheep, have been carried out at two places.

In one instance a strong letter of warning had to be sent to a butcher *re* the use of unsuitable and unregistered premises as a slaughterhouse.

In all, 24 nuisances have been detected in regard to blood and offal tins, manure receptacles and accumulations of shop refuse, &c., but these have generally been immediately abated on the attention of the owner being called to the matter.

The following work has also been carried out :—

Floors relaid and made impervious	...	2
Yard relaid and made impervious	...	1
Yards laid with gravel	... ..	4
Manure receptacle provided	... ..	1
New or improved drainage	... ..	1
New coppers built	... ..	2
Ventilation improved	... ..	1
Galvanised vessels provided	... ..	2

### DAIRIES, COWSHEDS, AND MILKSHOPS ORDERS.

There are now 195 premises in the Borough registered under the above Orders, viz. :—

8	Cowsheds,
39	Dairies,
35	Milkshops,
119	Purveyors.

Total...201, or an increase of 12 over the total for 1904.

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

1 Cowshed—shed unsatisfactory *re* cubic space, lighting, drainage, etc.

1 Dairy—closed.

1 Milkshop--closed.

The new premises registered during the year comprise :—

1 new Cowshed.

4 new Dairies.

3 new Milkshops and

1 Purveyor.

Regular inspections have been made of all the cowsheds and dairies in the Borough, and special attention given to the cleanliness of premises, vessels, utensils, &c.

The half-yearly limewashing of all cowsheds and dairies has been carried out in accordance with the Regulations, and in some cases where it was thought necessary by the Inspector, the premises have been limewashed and cleansed on verbal notice being given.

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

Entirely new dairy premises erected in accordance with Regulations	...	...	...	5
New cowsheds erected in accordance with Regulations				1
„ milkshops opened	...	..	...	3
„ milkstores provided	...	...	...	1
„ wash-houses provided	...	...	...	2
„ or improved drainage provided	...	...	...	5
Defective floors repaired and made impervious	...			5
Walls of cowsheds, dairies rendered impervious	...			1
Yards paved or made good with impervious material				10
Alterations and repairs <i>re</i> sanitary condition of premises				6
Nuisances abated ...	...	...	...	13
Notices to limewash premises		...	...	12



Notices <i>re</i> unsuitability of premises as cowsheds or dairy and <i>re</i> necessary alterations ... ..	3
Premises closed as unsuitable... ..	2
Action <i>re</i> possible contamination of milk ... ..	3

## SCHOOLS.

In accordance with the Reports made to the Educational Committee, extensive alterations and improvements have been carried out under the supervision of the Department at the following Public Elementary Schools :—

- (1) St. Peter's.
- (2) St. Michael's.
- (3) St. Walburga's.
- (4) Holy Cross.
- (5) St. James' National (Boys' and Girls' Departments).
- (6) St. James' Infants (Somerset Place).
- (7) St. Katharine's.
- (8) Moordown (Infants').
- (9) Council School, Livingstone Road.
- (10) Council School, Winton.
- (11) St. Clement's (Boys' and Girls' Departments).

At the following schools the works are now in hand :—

- (1) St. Paul's.
- (2) St. Luke's.

The general improvement in the cleanliness of the sanitary arrangements has been maintained during the year. It is to be hoped that the long-deferred improvements will be dealt with during the ensuing year in several of the schools, as, structurally, they are far from being satisfactory at the present time.

43 intimations as to defects requiring attention have been sent to the Education Secretary.

6 Private Schools have been re-drained as per the Drainage Regulations of the Borough during the year.

The usual examination at the end of each term has been made of all the principal schools in the Borough.

## PUBLIC CONVENIENCES.

There has been a decided improvement during the year in the maintenance and cleansing of the above premises since the appointment of a Special Attendant.

The increase in the takings has proved the necessity of the thorough supervision which it is now possible to give to these conveniences. By-laws for regulating the conduct of persons using the Public Conveniences have been put in force during the past year, since which time the irregularities as to entry without payment have ceased.

The following is a statement of the income and expenditure relating to these premises. I am indebted to the Borough Accountant for tabulating the following particulars. The increase in the expenditure is due to structural renovations and new sanitary fittings.

EXPENDITURE—JANUARY TO DECEMBER, 1905.

	£	s.	d.
Wages—Attendants and Repairs ...	459	19	6
Gas ... ..	31	18	11
Water ... ..	47	18	9
Urinals—Fittings and Repairs ...	89	6	6
Oil, Cleaning Materials, &c. ...	21	7	3
Disinfectant ... ..	38	12	3
Sundry Appliances and Tools ...	4	14	0
Lavatory Paper ... ..	3	7	6
Miscellaneous ... ..	16	18	0
	<hr/>		
	714	2	8
Interest and Redemption of Stock and Loans ... ..	178	18	0
	<hr/>		
	893	0	8
	<hr/>		

Statement of Receipts from Public Conveniences from January to December, 1905.

Convenience.	January		February		March		April		May		June		July		August		September		October		November		December		Total.											
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.										
Knyveton Gardens	1 18	2	1 10	9	1 7	5	2 3	9	1 17	4	1 19	1	2 5	6	2 9	6	2 10	7	1 16	10	1 10	3	0 0	3	0 15	7										
Westbourne	2 0	6	0 10	0	1 2	8	2 14	5	2 8	7	2 3	3	2 15	7	3 14	10	3 10	9	2 11	2	1 8	10	2 0	7	27	1	2									
Poole Hill	1 10	6	1 14	10	1 17	1	1 17	10	2 5	10	2 1	8	2 11	9	3 9	9	2 19	1	2 1	8	1 10	6	1 12	11	25	13	5									
Triangle	1 19	2	2 1	9	2 7	11	2 17	4	3 8	3	3 8	7	4 7	10	5 13	8	4 12	11	2 18	3	2 0	5	2 10	0	38	6	1									
Bourne Avenue	2 13	11	2 11	6	2 18	8	3 11	7	3 10	9	4 2	4	4 9	1	5 18	4	5 4	4	3 5	6	2 10	5	2 16	4	43	12	9									
Westover Road	0 6	8	0 6	7	0 8	8	0 18	9	0 18	10	1 9	3	2 0	3	3 11	6	1 14	6	0 12	2	0 7	1	0 7	1	13	1	4									
Engine House	2 10	6	3 3	5	3 15	7	6 14	8	7 9	9	11 3	11	17	10	22	13	0 15	17	0 5	18	4	2 7	2	2 12	4	101	15	11								
Pier Approach	6 9	4	6 19	10	9 1	11	14 7	6 12	8 6	19 8	1 21	9 9	21	9 9	40	17	4 25	8	11 11	10	3 4	13	3 7	13	8	180	8	4								
Central Gardens, Ladies' No. 1																																				
Central Gardens, Ladies' No. 2																																				
Lansdowne	2 14	3	3 0	6	2 17	3	4 7	9	4 9	2 5	17 11	6	9 4	8	11 4	4	6 13	7	3 17	8	2 15	10	3 9	0 55	3	7										
Horseshoe	1 9	4	1 11	10	1 4	10	2 2	11 1	19 10	2 9	1 2	8 0	3 9	9	3 9	9	2 16	8	1 18	10	1 8	10	1 19	8	24	19	7									
Boscombe	2 2	4	1 18	4	1 16	9	2 9	9 2	2 10	2 2	12 10	2 15	0 3	19	8	3 13	1	2 9	2 1	16	11	2 15	4	30	19	4										
Carnarvon Crescent																																				
Cliff Gardens																																				
Gardens, Ladies'	0 7	6	0 11	4	0 13	7	1 16	7	1 8	1 1	11 9	3 12	0 10	0	10	0	1 5	8	1 4	6	0 9	4	0 9	2	27	12	7									
Gents'	0 6	10	0 10	3	0 11	2	0 18	5	1 0	1 1	6 4	1 16	11	4 17	9	2 17	5	1 3	0 0	11	8	0 10	4	16	10	2										
Tennis Court	0 7	8	0 7	5	0 10	3	0 13	7	0 19	10	0 16	11	0 15	7	1 13	3	1 2	7	0 12	0 0	4	10	0 4	9	8	8	8									
Upper Gardens																																				
Alum Chine																																				
Durley Chine																																				
King's Park																																				
	26	16	8	26	18	4	30	15	3	56	13	9	83	13	2	106	19	11	178	9	2	116	1	3	50	10	11	26	8	8	32	1	3	792	17	7

## 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 years 1903, 1904, and 1905.

A total saving of 577,700 gallons has been effected during 1905.

Situation of Meter.	Consumption in 1903.	Consumption in 1904.	Consumption in 1905.
Cabstand, Littledown Road ...	22,500	14,400	9,800
„ St. Swithin's Road ...	18,200	13,900	14,300
„ Waverley Road ...	23,200	16,000	5,200
Fire Station, Holdenhurst Road	95,100	107,800	95,600
Cabstand, Meyrick Road ...	22,200	28,100	9,800
„ Madeira Road ...	34,900	27,800	16,600
Borough Offices ...	207,000	191,400	245,500
Yelverton Chambers ...	24,100	22,500	31,000
West Gardens Tennis ...	1,000	1,400	1,400
Corporation West Yard ...	104,500	119,500	120,400
West Road Depot ...	64,600	48,100	48,400
Drinking Trough, Chine Road...	25,000	44,800	69,000
Cabstand, Durley Road ...	20,600	19,800	14,800
„ West Cliff Road ...	66,900	17,100	15,000
„ No. 1, West Cliff ...	24,300	19,300	12,800
„ Exeter Road ...	8,400	1,500	3,500
West Fire Station ...	30,000	40,400	49,700
Mess Room, Westover Gardens	28,000	3,200	3,900
Engine House in Gardens ...	690,900	731,500	896,900
Lansdowne Drinking Trough ...	24,900	31,800	27,300
Cabstand, Charminster Road ...	5,500	10,300	6,400
Cemetery, Wimborne Road ...	86,200	90,100	108,100
The Refuse Destructor ...	48,900	14,700	14,200
Alum Chine, Cliff Gardens ...	65,300	3,800	24,200
Cabstand, Gervis Road ...	6,600	8,300	5,000
„ Derby Road ...	11,600	17,300	3,500
Knyveton Road ...	14,300	18,800	9,200
Boscombe Gardens Lodge ...	37,800	48,300	83,300
East Yard ...	531,600	552,000	553,000
Cabstand, Spa Road ...	28,900	13,600	10,400
„ Adeline Road ...	22,000	6,700	5,400
„ Palmerston Road ...	8,600	3,400	2,000
Boscombe Depot ...	98,900	93,700	81,000
King's Park ...	58,000	111,800	164,400
East Cemetery ...	69,000	148,000	99,000
Sanitary Hospital ...	445,300	552,400	584,200
Parkwood Road ...	170,700	109,700	142,800
Queensland Road ...	167,000	123,700	20,800
Rosebery Road ...	163,900	129,000	142,400

Clarence Park Road ...	146,200	100,700	18,500
Stourwood Avenue ...	91,800	103,400	10,900
Fisherman's Walk ..	121,400	111,600	21,900
Stourwood Road ...	162,200	123,700	90,800
Fountain, Parkwood Road ...	59,600	39,700	48,100
Boscombe Cliff Gardens ...	13,600	27,100	48,100
Wharncliff Road ...	30,200	14,300	12,200
Electric Car Sheds ...	139,000	163,300	164,500
Knyveton Gardens ...	9,700	9,800	8,200
Meyrick Park Pavilion ...	100,900	77,100	102,600
Golf Club ...	133,100	153,700	162,500
Bourne Avenue Cabstand ...	63,200	51,100	24,000
Urinal, Westbourne ...	82,700	50,900	59,300
"  Triangle ...	223,900	44,700	46,000
"  Bourne Avenue ...	63,200	89,400	47,400
Ladies' Lavatory, Exeter Lane	60,700	86,700	97,200
Winter Gardens ...	412,500	672,300	506,300
Urinals facing Pier ...	347,200	328,500	261,900
The Pier ...	476,500	342,700	324,400
"  (Special for Boats) ...	91,000	92,000	109,000
Urinal & Cabstand, The Westover	189,700	118,600	90,400
"  "  Firs Glen ...	208,500	80,700	45,900
"  "  Lansdowne Cres.	182,000	128,800	79,200
"  "  Bosc'mbe Grdns.	179,200	233,500	102,500
"  "  Carnarvon Cres.	414,500	88,500	79,000
	7,578,900	6,888,700	6,311,000

The above list does not include the meter for Electric Generating Station, as the water used for the boilers since June, 1904, has been obtained from artesian well. The consumption of water from the Company's supply for the three years is as follows :—

1903	1904	1905
6,865,000	6 months consumption. 4,213,000	4,000

The construction of this well, therefore, means the saving of approximately 7 million gallons per year.

No complete record was kept of the two following in 1903. The comparative statement for the two years is :—

	1904.	1905.
Bournemouth School ...	131,400	98,500
Mess Room at Tram Sheds	257,900	302,400

## SANITARY INSPECTIONS AND CERTIFICATES.

During the year £238 17s. 6d. has been received in fees for the examination and testing of drainage and sanitary arrangements with the view of obtaining the Sanitary Certificate.

The reduction of the fee to 10/6 for houses of the rental value of under £50 has made but little difference; the applications for such properties are very few.

## STATEMENT OF ACCOUNTS.

Accounts rendered for :—

	£	s.	d.
(1) Sanitary inspections ... ..	238	17	6
(2) Maintenance of patients at the Sanitary Hospital ... ..	414	3	1
(3) Amount of expenses incurred <i>re</i> Small-pox cases in this & adjoining districts	267	8	0

Proportioned as follows :—

Branksome Urban District Council	66	17	0
Poole Rural District Council ...	66	17	0
County Borough of Bournemouth	133	14	0
(4) Conveyance of patients to Sanitary Hospital, and collecting and returning articles disinfected ... ..	35	10	6
(5) Disinfection after non-notifiable disease	39	8	5
(6) Cleansing &c., at Winton Offices and Library ... ..	2	3	0
(7) Cleansing of W.C.s', etc., at Public Elementary Schools ... ..	72	0	0
(8) Meter checking at Public Elementary Schools ... ..	7	10	0
(9) Emptying cesspools ... ..	27	4	0
(10) Books, etc., as required by the Midwives' Act ... ..	2	2	0
(11) Drainage Works, etc., executed by Sanitary Authority and recoverable	133	15	3

Statement of Accounts to be recovered from owners.

Contractor's estimate for supplying houses with water as under :—

	£	s.	d.	
13, Nursery Road, Winton	4	15	4	
16, Parley Road, Winton	1	4	1	
21, Parley Road, Winton	4	15	7	
	<hr/>			10 15 0

### POLLUTION OF BOURNE STREAM.

It is satisfactory to report that there has been a marked improvement in the condition of the stream during the year. The structural alterations and improvements carried out by the engineers to the Gas & Water Co. and the Electric Light Co. have been effectual in preventing the waste products and oil from draining into the stream from their respective works as in previous years.

15 "Surprise" inspections have been made during the year, and samples of water were taken at the time of each inspection, and the result was satisfactory in every instance.

### DRAINAGE FOR NEW BUILDINGS.

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

493 new drains have been subjected to the water test.

In 105 instances it has been necessary to apply a second test.

In 28 instances it has been necessary to apply a third test.

In 12 instances it has been necessary to apply a fourth test.

In 377 instances the fittings of new houses have been subjected to the smoke test.

In 27 instances it has been found necessary to apply a second test.

In one instance it has been found necessary to apply a third test.

479 new houses were erected in the Borough during the year.

103 large additions, stables and workshops, and other buildings.

#### WATER SUPPLY.

818 separate supplies of water direct from main have been provided for supplying water for drinking purposes only.

507 cisterns have been cleansed under notice of advice.

7 houses have been provided with water from the Water Company's main.

1 public well re-constructed.

#### PARTICULARS *re* RAINWATER TANKS & WELLS IN THE WINTON DISTRICT.

There are now only five rainwater tanks which are used for the supply of water for drinking purposes, and as the Water Company have recently extended their mains to these premises as requested by your Authority, the owners can now be called upon to provide a proper supply of water to their houses.

Your Authority will therefore see that the question of securing a good water supply for this district has steadily been pressed forward.

There are at present 18 wells from which the supply of water for drinking and domestic purposes is obtained in the Winton and Moordown district. Owing to the pressure of the drainage work the question of dealing with these wells has had to remain in abeyance.

In eight instances the houses are situated a considerable distance from the Water Company's mains, and it will be necessary for the Company to extend the mains before the supply can be improved.

#### INFECTIOUS DISEASE.

During the year 632 cases of infectious disease (including Chicken-pox and Measles) 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.

Reports giving the particulars of the enquiries made and the result of the inspection have been supplied to the Medical Officer of Health respecting each of the above cases.

The drainage and sanitary arrangements of nearly all the premises where infectious disease has been notified have been tested—measles and chicken-pox cases excepted. Sixty-nine 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. 383 such notices have been served upon the school teachers, and 281 on the parents of the children.

The amount of fees paid for notification of infectious disease during 1905 was £78 5s., including £39 15s. for measles, and £4 5s. for chicken-pox.

The total number of articles, including bedding, &c., that have been disinfected by the Disinfector (Bengafield) at the Sanitary Hospital is 3,400. 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 conveniences, &c., which have been fumigated during the year :—

	749 Rooms
	84 Wards (Hospital).
	<hr/>
Total	833
	<hr/>

In addition to this, 64 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 178 times.

### SMALL-POX CASES.

The outbreak of small-pox necessitated a good deal of careful and strict attention and supervision on behalf of the Department. The following action taken will show some of the difficulties in dealing with such cases. (1) Removal of the patients at night to the Branksome Isolation Hospital. (2) Visitation of the houses infected and all contacts vaccinated and kept in quarantine for 16 days (two contacts only refused to be vaccinated). The infected houses during quarantine were kept under strict supervision, daily visits were made to arrange as to the supplies from the various tradesmen, the laundry-work was disinfected each week previous to its being washed in a special compartment set aside for the purpose. The cleansing and disinfection of the premises was carried out under supervision by special workmen who had previously had small-pox.

By adopting these prompt and precautionary measures no further development of the disease occurred from Nos. 2, 3 and 4 cases. The cost to your Authority in dealing with the contacts was also considerably smaller than is usually the case.

One of the patients had been engaged in a laundry which was in the Poole Rural District. This laundry did work for eleven houses in the Borough, including a large boarding-house and private hotel. Arrangements were made with the Poole Authority for all articles to be disinfected at our Hospital, there being no facilities for effectually carrying out such work there. I cannot speak too highly of the care and attention given to this

work by the Disinfector. All infected articles were wrapped in specially prepared sheets, and removed to the disinfecting station at night after the streets were quiet.

*Case 1.* 51 Contacts in 11 houses. One contact developed the disease in the Borough, and one in each of the adjoining districts of Branksome and Poole Rural. Cost to your Authority in dealing with the contacts amounted to £29 4s. 6d. ; this sum included compensation for the destruction of infected articles of clothing, bedding, &c.

*Cases 2, 3.* 12 additional contacts, no costs incurred.

*Case 4.* 17 contacts, no costs incurred.

By an arrangement made with the adjoining Sanitary Authorities of Branksome and Poole (Rural), the small pox patients were treated in the Branksome Isolation Hospital, and the scarlet fever and diphtheria cases from these two districts were removed to the Bournemouth Isolation Hospital.

The cost of treatment for the small-pox patients amounted to £141 5s. 7d., and for the scarlet fever and diphtheria removed from the outside districts £126 2s. 5d., the total amounting to £267 8s.

Your Authority agreed to pay one half, and Branksome and Poole Rural each one quarter of this amount, the proportion being based upon the number of patients removed from each district.

Measles was made a notifiable disease in March, 1903, and chicken-pox in October, 1905. During the year 318 cases of the former have been notified and 34 of the latter. The principal means of causing the spread of measles was the attendance of infants in the Elementary Schools when in an infectious condition.

The notification of the disease seemed to have but little effect in preventing the cases spreading after it had once broken out in the infants' departments. The principal good arising from the notification of the disease seems to be that the opportunity is given of educating the ignorant and careless as to the importance of isolating the patients in the infectious stage, and of the proper treatment to prevent the serious complications arising in the earlier and later stages of the disease.

The following steps were taken by the Department to prevent the disease from spreading.

(1) Teachers were requested to send scholars home on the first signs of the premonitory symptoms.

(2) Children from infected houses were not allowed to attend school for 28 days after the last case was notified.

(3) Notification of infected households to Education Authority and Attendance Officers.

(4) Visits to houses of absentees.

(5) Isolation of patients as far as could be insisted where the cases were nursed at home.

(6) Disinfection of infected rooms and bedding.

The clerical work in connection with the service of school notices and making tabulated reports for the Medical Officer of Health of each case was done principally in the evenings after office hours, to which Mr. Carter, the District Inspector, gave a good deal of attention.

## ACTION TAKEN FOR ABATEMENT OF NUISANCES.

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

4506 Letters and reports *re* insanitary premises have been written.

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

211 Preliminary notices have been served.

42 Premises have been formally reported to the Sanitary Committee.

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

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

32 Formal notices have been served.

## DRAINS.

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

908 Drains condemned and new ones substituted.

205 Main drains cleared from obstruction and repaired.

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

952 Drains provided with intercepting traps and fresh air inlets.

266 Disconnecting chambers and inspection chambers built.

46 Stables provided with effectual drainage.

12 Drains provided with mica valve inlets.

6 Intervening syphon traps removed from drains.

## VENTILATING SHAFTS.

188 Light iron soil pipes and ventilating shafts replaced by stout iron, with molten lead joints.

757 Drains ventilated by 4in. shafts.

39 Defective zinc ventilating shafts for soil pipes replaced by 4in. iron pipes.

5 Defective soil pipes inside the houses removed, and fixed on the outside walls and ventilated.

747 Nuisances abated arising from defective soil pipes and ventilating shafts with leaky joints terminating near windows.

## W.C.'s.

138 Pail closets and privies replaced by approved w.c.'s.

34 New w.c.'s built.

481 Defective w.c.'s removed and replaced by "valves" or washdown apparatuses.

644 Closets cleaned, repaired, and put into working order, and provided with an effectual flush of water.

159 New drawn lead traps and connections, and trays provided to w.c.'s.

942 W.c.'s provided with effectual light and ventilation.

- 56 Closets and urinals condemned and removed.  
 290 Defective walls and floors under w.c.'s repaired and stopped.  
 97 Closets provided with anti-syphonage and puff pipes.  
 9 New urinals provided.  
 10 Urinals repaired and provided with proper flushing tanks.

### SINKS.

- 96 New sinks provided of glazed fireclay pattern.  
 127 Brick and cement sinks replaced by impervious sinks.  
 86 Scullery sink waste pipes disconnected.  
 661 Large and offensive grease pits replaced by earthenware traps.  
 1,102 Lead waste pipes trapped by lead "P" or "S" traps.  
 1,063 Waste pipes made to discharge under iron gratings.

### BATHS, LAVATORIES, AND STACKPIPES.

- 87 New baths and lavatory basins provided.  
 116 Bath and lavatory wastes disconnected and trapped.  
 21 Bell traps removed and replaced by gullies.  
 1,801 Stackpipes disconnected.  
 2,192 Stackpipes made to discharge underneath gratings.

### MISCELLANEOUS.

- 52 manure receptacles built for the temporary deposit of stable manure.  
 226 Offensive accumulations removed.  
 509 Leaky roofs and gutterings made secure and watertight.  
 113 Defective floors to back yards repaired or repaved.  
 336 Rooms and passages cleansed and limewashed.  
 787 Cesspools emptied and filled in.

14 Cesspools provided with impervious covers and gin. inlets.

101 Nuisances abated arising from offensive catch-pits in stable yards, &c.

112 Galvanised iron receptacles provided for deposit of house refuse.

107 Houses provided with ventilation underneath the floors.

14 Smoke nuisances abated.

41 Nuisances abated arising from the improper keeping of animals.

75 Rooms provided with proper ventilation.

New houses provided with drainage and fittings to meet the requirements of the Certificate Regulations.

3 Nuisances abated arising from overcrowding.

#### HOUSING OF THE WORKING CLASSES ACT, 1890.

Last year two houses, Nos. 6 and 7, St. Michael's Cottages, were 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.

During 1905 two houses known as Nos. 9 and 11, Mannington Place, have been voluntarily closed by the owner in lieu of carrying out the works required by the notices served. These houses open out into the same Court or Passage as Nos. 6 and 7, St. Michael's Cottages.

#### 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 ...	1,372
Number of loads of sewage removed	3,334
Number of cesspools condemned and filled up with dry earth... ..	748

## POKESDOWN DISTRICT.

Number of cesspools emptied ...	67
Number of loads removed ...	152
Number of cesspools condemned and filled up with dry earth ...	28

The two Patent Exhaust Carts have worked satisfactorily during the year, and the complaints have been but few as to the annoyance arising from the tips. A memorial was received from the residents in the Alma Road and Lansdowne Park districts as to the tip at the Refuse Destructor, and the use of this tip was discontinued as per your Authority's instructions. The greater portion of the sewage is now carted to Strouden Farm.

*Expenditure.*

	£	s.	d.
4 men and 4 horses at 8/3 per day for each man and horse as per contract ...	518	2	0
2 Corporation workmen at 4/2 each per day ...	130	16	8

*Repairs, &c.*

Gauge glasses ...	0	12	0
Disinfectants approx. 6/- per week ...	15	12	0
Oil, 1/- per week...	2	10	0
Coke, 1/- ,, ...	2	10	0
	<hr/>		
	£670	2	8

*Income.*

Amount received for hire of carts (Pokesdown)	10	10	0
"    "    "    "    "    (Winton) ...	14	2	0
	<hr/>		
Total	£24	12	0

## PIGGERIES AT WINTON AND POKESDOWN.

During the year periodical inspections have been made of the Piggeries situate without the prescribed distance of 150 feet from the nearest dwelling house. There are 19 piggeries in the former district, and 15 in the latter, the total number of pigs kept in the Borough being about 170.



## WINTON DRAINAGE.

785 House drains have been connected to the new sewers in this district during the past year.

784 Cesspools have been emptied and filled in.

The drainage work is still in progress. A house-to-house inspection is made as soon as possible after the roads are made up and sewered by your Authority. It is to be hoped that during the present year the majority of the house drains in this district will be connected to the new system of sewerage.

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

- (1). Employment of Children cases.
- (2). Smoke nuisances, Boscombe.
- (3). Report on Outworkers.
- (4). Public Conveniences *re* illegal entry and special Bye-laws.
- (5). Manure tipping, Refuse Destructor.
- (6). Conference on School Hygiene.
- (7). Rainwater tanks, Moordown.
- (8). Drainage of Winton and Richmond Park Districts and the re-organising of the Department.
- (9). Outbreak of small-pox.
- (10). Complaints *re* annoyances arising from carpet beating.
- (11). Special inspections of Hahnemann Home and Herbert Home Institutions.
- (12). Smoke nuisances from Hotels.
- (13). Appointment of Special Inspector (temporary) for Winton District.
- (14). Combined drainage of properties in Surrey Road.
- (15). Fire-escape from large workrooms.
- (16). Public Water Supply at Wick.
- (17). Nuisances from catchpits in public roadways.
- (18). Gipsy encampment, Charminster.
- (19). Report of Midwives for non-compliance of Rules.
- (20). Nuisances from rights-of-ways.

- (21). Nuisance from storm water outfall, Alum Chine.
- (22). Laundries at Winton.
- (23). Amended abstracts for distribution *re* Infectious disease.

Owing to your Authority having made Measles and Chicken-pox notifiable diseases, and to the drainage alterations in the Winton district, there has been a large increase of work in the general routine duties of this Department, so much so, that at times the work could not be properly coped with by the present staff. In the early part of the year it was found necessary to re-organize the work of the District Inspectors, Mr. Carter, of No. 4 District, assisting Mr. Phillips in No. 2 District, and the work of No. 4 District being divided between Mr. Smith, Workshops Inspector, and Messrs. Lewis and Adams, District Inspectors. Your Authority afterwards appointed a temporary Inspector to assist Mr. Phillips in the Winton district, and thus relieved the pressure of work all round. Again, in the autumn, owing to the somewhat serious outbreak of Measles in the Malmesbury Park and Springbourne districts, it was necessary for Mr. Smith, the Workshops Inspector, to be again taken from his usual duties to assist Mr. Carter in these districts, and it was in great part due to the extra attention both of these Inspectors gave to this work that the cases were at all kept in hand.

It has been necessary for the whole staff to give a good deal of overtime and do the clerical work of the office in the evenings, and it is due to them that I should call attention to the earnest and willing help afforded by all during special times of pressure.

1905 has meant a hard year's work to us all. The clerical work in connection with the large number of notices served in the Winton District has necessitated a large amount of overtime in the evening, particularly on the part of Mr. Brazier, the clerk responsible for this work, and also on the part of Mr. Phillips, District Inspector.

In conclusion, I beg to thank the Chairman and Members of the Sanitary Committee for the careful

consideration given to all matters relating to the Department brought before their notice during the past year.

I remain, Gentlemen,

Your obedient servant,

WM. GEO. COOPER,

*Chief Sanitary Inspector.*

COUNTY BOROUGH OF BOURNEMOUTH.

---

ANNUAL REPORT  
OF THE  
PUBLIC ANALYST

(R. A. CRIPPS, ESQ., F.I.C.),

*For the Year ending 31st December, 1905.*

---

TO THE MAYOR AND TOWN COUNCIL,  
BOURNEMOUTH.

GENTLEMEN,—

I have the honour of making my Report upon the samples of Food and Drugs submitted to me for analysis during the year 1905, all of which were received from Mr. J. Christie, Inspector under the Food and Drugs Acts.

During the year 300 samples have been analysed, of which number 42 (or 14 per cent.) have proved to have been adulterated or deficient in some important constituent, whilst 35 (or 11·6 per cent.) were also found to be of poor or doubtful quality. 42 samples (14 per cent.) contained a chemical preservative, usually boric acid, whilst no fewer than 85 (or 28·3 per cent.) were artificially coloured.

The accompanying tabular statement indicates generally the results obtained :—

## Summary of Annual Report, 1905.

Article.	No. of Spls.	Genuine.	Poor or Doubtful.	Coloured.	Contained Preservative.	Adulterated.	Percentage Adulterated and Observations.
New Milk	100	59	20	77	2	21	21 per cent.
Separated Milk	8	6	1	7	0	1	12½ „
Condensed Milk	10	10	0	0	0	0	0. All sweetened.
Machine-skimmed							
Butter ...	33	24	4	0	10	5	15½ per cent.
Milk-blended Butter	3	0	0	0	2	3	100 „
Margarine ...	17	15	2	0	15	0	0
Cheese ...	25	16	1	0	0	8	32 „ Excess Water, Deficiency of Fat.
Jam ...	1	1	0	0	0	0	0
Preserved Fruits	16	16	6	1	1	0	0
Sausages ...	15	13	0	0	10	2	13⅓ per cent. Excess Boric Acid.
Tea ...	3	3	0	0	0	0	0
French Coffee	1	1	0	0	0	0	0 2 parts Coffee, 1 Chicory.
Sugar ...	3	3	0	0	0	0	0
Vinegar ...	6	4	2	0	0	0	0
Mustard ...	9	9	0	0	0	0	0
Pepper ...	9	9	0	0	0	0	0
Tartaric Acid	8	8	0	0	0	0	0
Cream of Tartar	8	6	1	0	0	0	12½ per cent. Contained excess of Lead.
Drugs ...	25	20	4	0	2	1	4 per cent.
Total ...	300	223	35	85	42	42	14 per cent.
Percentage ...		74·3	11·6	28·3	14	14	

Arising out of these results I desire to direct attention to the following :—

## MILK.

The number of adulterated samples has again reached the very high figure of 21 per cent., similar to that for the year 1903 which was 21·5 per cent., whilst the total of poor or doubtful samples is also large, viz., 20 per cent.

Most of the adulterated samples (eleven) were deficient in cream, mostly to only a slight extent, but in one instance amounting to 19 per cent. ; 8 samples contained added water, the two worst containing 17 per cent. and

30 per cent. respectively ; 2 samples contained boric acid.

The average proportion of milk fat in the 100 samples was 3.41 per cent., whereas the average in milk of undoubted purity is 3.88 per cent., hence the probable reason for the considerable number of adulterated samples is the practice (referred to in my Report for 1904) of adding *separated* milk to bring down the percentage of fat to what is judged to be a "safe" limit ; it is now most unusual to find such crude frauds as addition of 25 or 30 per cent. of water or the removal of one-third or half the cream by skimming. If this is so, it is very important that small deficiencies of 5 or 6 per cent. should not be considered trivial offences, more especially as the legal minimum of 3 per cent. fat already permits the removal of upwards of 20 per cent. of the cream from milk of *average* richness.

### BUTTER.

Of the adulterated samples two contained cocoa-nut oil, one a slight excess of boric acid, another a small excess of water, and the fifth about ten per cent. excess of salt.

Three samples of "Milk-blended Butter" were examined, and contained respectively 27.7, 28.45, and 31 per cent. of water. The article is advertised as containing "about 24 per cent. of water," which is, to say the least, misleading. In my opinion such an excess constitutes flagrant adulteration, the additional 3 to 7 per cent. of profit representing a very large sum of money fraudulently extorted from the public.

### CONDENSED MILK.

In view of the terrible effects of mal-nutrition of many of the children of the poorer classes by whom so much of the condensed milk is consumed, it is surely high time that legislation was adopted, compelling the vendors of condensed milk to state in large and distinctive type the actual value of the contents of the cans in such a way that the meaning *cannot be misunderstood*.

The ten samples examined by me during the year were all "machine skimmed" and "sweetened," and required diluting with only about two parts of water to one part of the condensed milk to produce *separated* milk and sugar. The title "Machine-skimmed Condensed Milk," with a mere statement to the effect that the article is "sweetened," conveys no adequate idea of the actual value of the contents of the can. If diluted as above with twice its weight of water, the child would receive practically no milk-fat, and such a quantity of sugar as to be most injurious to the digestive functions. Commonly, however, the dilution would be much greater, a very usual test of the amount of water required being that of taste, *i.e.*, a certain degree of sweetness—hence mal-nutrition. Undoubtedly the labels should state the precise proportion of water required, and if this was found upon analysis to be incorrect, the provisions of the Merchandise Marks Act would probably be sufficient to cover such cases.

The remaining articles analysed do not call for any special comment.

It will be noticed that the adulterated samples have this year almost always been articles of food in common use, forming a very important part of the daily diet, *viz.*, milk, butter, and cheese, the adulteration taking the form of removal of fat, or an excess of water. Although such adulteration does not produce any sudden and alarming symptoms, such as might be caused by the use of injurious colouring matter or preservative, it is nevertheless of the greatest importance that any general weakening of the nutrient value of food should be met by the stringent application of the law.

I am, Gentlemen,

Your obedient servant,

R. A. CRIPPS,

Public Analyst.

January 20th, 1906.

COUNTY BOROUGH OF BOURNEMOUTH.

---

ANNUAL REPORT

OF THE

Inspector under the Sale of Food and Drugs Acts,

1875-1899.

*For the Year 1905.*

---

TO THE MAYOR AND TOWN COUNCIL,  
BOURNEMOUTH.

GENTLEMEN,—

SALE OF FOOD AND DRUGS ACTS, 1875-1899.

During the year 1905, 300 samples of food 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 sent 223, or 74·3 per cent, were reported to be genuine ; 35, or 11·6 per cent., to be of poor or doubtful quality, and 42, or 14 per cent., to be adulterated.

From the following table it will be seen that on the total number of samples analysed in 1905 there is a decrease of 2·6 per cent. of adulterated articles compared with 1904, but, although this is satisfactory to some degree, it is not so satisfactory to report that of the 42 articles reported adulterated, no less than 38 were articles of daily consumption, viz., butter, cheese, and milk.

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
1905 .....	300	42	14·0	2·6	...



TABLE I.

Summary of samples forwarded to the Public Analyst for analysis during the year 1905, showing number of each article analysed, and the result of analysis.

Number of Samples Analysed.	Article	Reported by Analyst.			Observations.
		Genuine.	Poor or Doubtful.	Adulterated.	
33	Butter	24	4	5	.....
3	Do. Milk blended	0	0	3	27.7, 28.45, and 31 per cent. of water.
25	Cheese	16	1	8	Eight samples were almost devoid of fat.
1	Coffee—French	1	0	0	.....
4	Drugs:— Ammoniated Tr. Quinine	3	1	0	One was slightly deficient in Ammonia.
5	Citrate of Iron and Quinine ...	3	2	0	Two = 0.35 and 0.6 % deficient in Quinine.
8	Cream of Tartar ...	6	1	1	One deficient in Potass Bitartrate; one had an excess of Lead.
5	Epsom Salt ...	4	1	0	One contained traces of Iron, Chloride of Magnesium, &c.
8	Tartaric Acid ...	8	0	0	.....
6	Tincture of Iodine	5	0	1	One was deficient in Iodine 5%, and Iodide of Potass. 12%.
5	Quinine Wine ...	5	0	0	.....
16	Fruits—bottled ...	16	0	0	.....
1	Jam ...	1	0	0	.....
17	Margarine ...	15	2	0	Slight excess of water in two samples.
100	New Milk ...	59	20	21	20 poor samples were low in milk-fat or non-fatty solids
8	Milk—Separated	6	1	1	One low in Non-fatty Solids; one with 10 % added water.
10	Do. Condensed } Separated }	10	0	0	.....
9	Mustard ...	9	0	0	.....
9	Pepper ..	9	0	0	.....
15	Sausages ...	13	0	2	Slight excess of Boric Acid in two samples.
3	Sugar—Demerara	3	0	0	.....
3	Tea ...	3	0	0	.....
6	Vinegar—Malt ...	4	2	0	.....
300		223	35	42	

## BUTTER.

Of 33 samples of butter analysed 5 were reported adulterated and 4 as of doubtful purity.

Two of the adulterated samples contained at least 12 per cent. of fat other than milk fat, probably cocoa-nut oil; while the other three contained respectively 10 per cent. excess of salt;  $1\frac{1}{4}$  per cent. excess of water and 0.1 per cent. excess of boric acid.

The four samples reported as of doubtful purity were all open to suspicion of containing a small proportion of cocoa-nut oil, but adulteration could not be definitely proved.

Legal proceedings were not instituted in any of the above cases, but letters of warning were forwarded to each vendor.

Personal interviews and verbal warnings were also given to all shopkeepers in the Borough who were known to transact business with the London firm from whom came the special brand of butter containing cocoa-nut oil, and in every instance the result was that this brand of butter was not re-stocked, and orders already placed were cancelled.

### MILK-BLENDED BUTTER.

Three samples of milk-blended butter were analysed and reported "to contain an excess of water above the 24 per cent. the butter is advertised to contain, and greatly in excess of the amount of water found in genuine butter, which should not exceed 16 per cent."

By Section 1 of The Sale of Butter Regulations, 1902, it is provided that:—"Where the proportion of water in a sample of butter exceeds 16 per cent., it shall be presumed for the purposes of the Sale of Food and Drugs Acts 1875-1899, until the contrary is proved, that the butter is not genuine by reason of the excessive amount of water therein."

Protection, however, is afforded to the seller of an admixture by Section 8 of the 1875 Act, provided the seller at the time of sale supplies with the article purchased a notice to the effect that the article is mixed.

By adopting and carrying out such a course, vendors of butter mixed with milk are enabled to sell this mixture as milk-blended butter, and upon each

package of this article sold a notice is printed in the following terms :—

“ This is choicest butter, blended with pure English full cream milk, whereby the percentage of water in the butter is increased to *about* twenty-four per cent., but this limit of percentage is not guaranteed.”

A customer reading such a notice would naturally conclude that the limit of percentage of water would be *about* 24 per cent., but, in the samples analysed, the percentage of water in each sample was found not to be *about* 24 per cent., but respectively  $3\frac{1}{2}$ ,  $4\frac{1}{2}$ , and 7 per cent. in excess of it.

The following table of analytical results will show the great difference in the component parts of genuine butter and milk-blended butter :—

	Water. per cent.	Curd & Ash per cent.	Butter-fat per cent.	Remarks.
Average of genuine samples of butter analysed during 1905	12.95	13.8	83.25	
Sample of Milk-blended butter	27.70	6.56	65.74	3.7 per cent. more water than advertised, and 11.7 in excess of standard for genuine butter.
Do. Do.	28.45	7.39	64.16	4.45 per cent. more water than advertised, and 12.45 per cent. in excess of standard.
Do. Do.	31.00	6.36	62.64	7 per cent. more water than advertised, and 15 per cent. in excess of standard.

From the above figures it will be seen that milk-blended butter contains—(1) More than twice the amount of water usually found in genuine butter ; (2) about twice the amount of curd and ash ; and (3) about 20 per cent. *less* butter fat than genuine butter.

## CHEESE.

Of 25 samples of cheese analysed one was reported to be of poor quality owing to a rather high percentage of water, and eight samples to be deficient in milk fat.

Nine of the samples analysed were of the Canadian

or Cheddar variety, one sample was Dorset cheese, and 15 samples were Dutch cheese.

All the Canadian or Cheddar cheeses were reported to be genuine; the Dorset cheese to have been made from separated milk, and to contain a slight excess of water; while, of the 15 Dutch cheeses, seven were reported to be adulterated, owing to all seven being practically devoid of milk fat, and five of them to contain, also, an excess of water.

The samples of Dutch cheese reported genuine were the true Dutch or "Edam" cheese, the words "Dutch produce" being stamped in black letters upon the reddened crust of each cheese.

The seven Dutch cheese samples reported on adversely had all been made in imitation of the true "Edam" cheese, were of similar shape and red colour, but did not bear the words "Dutch produce." They were really what is termed "Factory Dutch" cheeses, being made from machine separated milk, hence the very great deficiency in the proportion of milk fat which they contained.

Reports having been submitted to your Authority by the Public Analyst and myself regarding the unsatisfactory condition of such cheese, and to the absence of a standard, your Authority, by resolution of the Council, approached the Board of Agriculture with the application "That in view of the widely varying composition of cheese as sold to customers the Board would be good enough to consider whether the time had arrived when a standard for cheese might be laid down under the powers given to the Board by the Food and Drugs Act, 1899, Sec. 4, and suggesting that any authoritative definition of cheese should exclude all cheese which is not made from a reasonably good skimmed milk, or new milk; and, further, that there might be different definitions suited to the several qualities for which it is practicable to fix standards, *e.g.* (1) new milk cheese, (2) skimmed milk cheese, (3) separated milk cheese."

A large number of the Councils of the largest towns passed resolutions in support of the application.

In the Board's decision it is pointed out that there "are many practical difficulties in the way of framing suitable regulations of the nature desired, owing to the fact that so many different kinds of cheese exist, each varying in character and composition, and it is not altogether clear in what way regulations, if made, would assist consumers in obtaining the article they desire."

"In general, it may be said that all high class cheeses contain a relatively high percentage of fat, and while it may be practicable to fix a limit of fat which would serve to differentiate between whole milk cheese and skim milk cheeses, it is doubtful whether by fixing such a limit any useful purpose would be served."

"The Board are reluctant to arrive at a conclusion antagonistic to the views expressed in your letter, supported as they are by other Local Authorities, but on consideration of all the circumstances they do not feel that any advantage would be gained by an attempt to deal with cheese by the issue of regulations under the Act in question."

## DRUGS.

It is satisfactory to report that although a larger number of samples of Drugs were analysed during 1905, only 2, or 4·8 per cent., were reported adulterated. This is in marked contrast to the analytical results of Drugs during 1904, when 7 out of 10 samples (or 70 per cent.) were reported to be either adulterated or deficient in some part.

5 samples were reported to be of poor quality, but all 5 were only slightly at variance with the standards.

The 2 samples reported adulterated were :—(1) Tincture of Iodine, which was deficient in Iodine and in Iodide of Potassium, and (2) Cream of Tartar containing 1·1 grain of lead per pound. The latter sample, and also a sample of Epsom salt found to contain traces of iron, chloride of magnesium, and general dust, fibres, etc., were purchased at oil, colour, and drysaltery stores. In many such stores articles which more or less form part of, or are used in the preparation of food or beverages, or as a drug, are stocked in a loose state, and

in such a way that the risk of contamination is by no means small.

The majority of the samples of Cream of Tartar and Tartaric Acid were obtained from grocers, and the analytical results of these samples show a decided improvement in the purity of these articles compared with the results in former years.

### MILK.

100 samples of New Milk were procured for analysis during the year, 90 samples being purchased from retail vendors in the Borough, and 10 samples taken as delivered by farmers to the vendors.

21 out of these 100 samples were reported by the Analyst to be adulterated or deficient in cream.

#### RETAIL VENDORS' SAMPLES OF MILK.

Of the 90 samples of New Milk purchased from retailers 57 were genuine, 18 of poor quality, and 15 adulterated or deficient.

Enquiries were made and samples of the farmers' milk taken and tested in those cases where the milk had been reported against. In several instances the farmers' milk was found to be below the standard, and in 4 of these instances irregular intervals between successive milkings were pointed out to be the probable cause. In each case the farmer promised to milk at more regular intervals.

Legal proceedings were taken against one retail vendor when the case was dismissed on warranty defence. In the other cases strong letters of warning were written, and in nine of these cases the correspondence and letters of warning were written by the Town Clerk.

#### FARMERS' SAMPLES OF MILK.

Of the 10 samples of New Milk procured as delivered in town by the dairy farmers, 2 were reported genuine, 2 as of poor quality, 4 to contain added water, and 2 to be deficient in cream.

Legal proceedings were taken against two farmers with respect to four samples containing added water.

One defendant, who had a previous conviction against him for a similar offence, was fined £5 including costs on each summons ; the other, who had adulterated his two churns of Milk with water to the extent of 30 per cent. in the evening's milk and 17 per cent. in the morning's milk, was fined similar amounts.

### SEPARATED MILK.

8 samples of Separated Milk were analysed and one found to contain 10 per cent. added water.

How this sample became adulterated could not be definitely traced, but I have no doubt it was caused by the insertion of a steam pipe into the new milk to heat it quickly for the "Separator." This is regularly done to save time and trouble by those who separate on a large scale. The separated milk produced is, however, bound to contain added water, owing to the condensation of the steam injected into the cold new milk. Such milk should not be sold.

### TEST SAMPLES OF MILK.

In addition to the 100 samples of New Milk and 8 Separated Milk analysed by the Public Analyst, 125 samples of new milk were procured as delivered by farmers to retailers in town. These samples were submitted to the "Gerber" test by the Inspector, with the result that 81 were found to be genuine, 13 to be of poor quality, and 31 to be either adulterated or deficient in milk-fat.

In the prosecutions of farmers mentioned above, the testing of the farmers' milk conclusively proved to the Inspector that the retail vendors from whom samples had previously been taken and reported on adversely by the Analyst were not the adulterators, although they were guilty of gross carelessness in not making themselves aware, by analysis or testing, as to the quality of the milk they were receiving and selling.

In the second defendant's case the tests were carried on for ten days, and it was found the milk was being sys-

tematically adulterated. After samples had been taken from this farmer, under the Acts, the daily tests showed the quantity of water added was being gradually reduced, and it was not until a second warning was sent that the adulteration ceased and the milk sent in pure, with 4.9 per cent. milk-fat and 8.70 per cent. N. F. solids in the morning's milk, and 5.2 per cent. milk-fat and 8.8 per cent. N. F. solids in the evening's milk.

In all cases where farmers' milk was found to be below the standard, letters of warning were written or visits made to the farms, when the necessity of taking proper precautions to ensure a better quality of milk being sent into the Borough was pointed out.

### COLOURING MATTERS.

MILK.—Of the 98 samples of new and separated milk purchased in the Borough, 84, or 85.7 per cent., were found to have been coloured with annatto. In none of the farmers' samples was colouring matter found.

### PRESERVATIVES.

MILK.—Boric acid was detected in 2 samples of milk in amounts of 28 and 35 grains per gallon. Letters of warning were written to the vendors.

SAUSAGES.—There is a decided improvement shown in the quantity of Boric Acid used in the manufacture of this article of food; the two samples reported as adulterated had only a slight excess of Boric Acid.

Table showing number of samples analysed during 1905, reported by the Analyst to contain some Preservative, Colouring Matter, or Metal:—



Nc. of Samples Analysed	ARTICLE	CONTAINING				QUANTITIES
		Salicylic Acid	Boric Acid	Colouring Matter	Lead or other Metal	
5	Quinine Wine	2	...	...	...	0·1 and 0·15 grain per pint
16	Bottled Fruits	1	...	...	...	3/10ths grain per pound
	Do. do.	...	...	1	...	Acid Magenta colouring
33	Butter	...	10	...	...	From traces up to 0·6 per cent.
3	„ Milk-blended	...	2	...	...	0·21 and 0·26 per cent.
100	New Milk	...	2	...	...	28 grs. & 35 grs. per gallon
	Do. do.	...	...	77	...	Traces of Annatto colouring
8	Separated Milk	...	...	7	...	„ „ „
8	Cream of Tartar	...	...	...	7	From 0·038 up to 1·1 grain of Lead per lb.
8	Tartaric Acid	...	...	...	8	From 0·038 up to 0·25 grain of Lead per lb.
17	Margarine	...	15	...	...	From 0·17 p.c. up to 0·45 p.c.
15	Sausages	...	10	...	...	From 0·13 p.c. up to 0·7 p.c.
		—	—	—	—	
		3	39	85	15	

### MARGARINE ACT, 1887.

In five instances Margarine was detected exposed for sale without having attached the label bearing the word "Margarine" in one-and-a-half inch block letters, and in one case Margarine was sold contrary to the provisions of the Act, the word "Margarine" being written on the paper wrapper instead of being printed in letters half-an-inch square.

Letters of warning were written in all six cases. Legal proceedings, however, will be taken in all such cases in future.

LETTERS OF WARNING.—In 30 instances letters of warning were written by the Inspector to vendors of samples reported against.

PROSECUTIONS.—The following is a statement of cases in which legal proceedings were taken during 1905 with respect to samples reported as adulterated, the result of such proceedings, and the respective amounts of the penalties inflicted.

Article	Extent of Adulteration.	Proceedings taken under:—	Result of Proceedings	Fines £ s. d.	Remarks
New Milk	5 per cent. added water ...	Sect. 6, 1875	Conviction	0 10 0	2nd offence
Do.	8 do. do. ...	do.	do.	0 10 0	do.
Do.	6½ p.c. deficient in Cream	do.	Dismissed	—	Warranty defence
Do.	30 per cent. added water	do.	Conviction	4 2 6	
Do.	17 do. do.	do.	do.	4 2 6	
				£9 5 0	

I am, Gentlemen,

Your obedient Servant,

JOHN CHRISTIE,

*Inspector under Food and Drugs Acts.*

1870  
The following is a list of the names of the persons who have been admitted to the bar of this court since the last report of the Board of Examiners.

ADMITTED TO THE BAR

JOHN E. BROWN  
JAMES H. BROWN  
WILLIAM H. BROWN