

[Report 1909] / Medical Officer of Health, Bournemouth County Borough.

Contributors

Bournemouth (England). County Borough Council. nb2004301338

Publication/Creation

1909

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COUNTY BOROUGH of BOURNEMOUTH,
1909.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

WITH WHICH ARE INCLUDED THE REPORTS OF THE

BOROUGH BACTERIOLOGIST

CHIEF SANITARY INSPECTOR,

AND

PUBLIC ANALYST.

BOURNEMOUTH.

The Richmond Hill Printing Works Ltd.

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ANNALS OF THE
ENTOMOLOGICAL SOCIETY OF AMERICA
NO. 62, PART 1, 1970
PUBLISHED BY THE ENTOMOLOGICAL SOCIETY OF AMERICA
521 NORTH DAKOTA AVE., CHICAGO, ILL. 60610
CHIEF OF PRESS & PUBLISHING
J. G. REEVE

Volume 62, Part 1, 1970
Number of pages: 1-100
Price: \$10.00
Subscription price: \$30.00 per annum in advance
Single copies: \$3.00 each

County Borough of Bournemouth.

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ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

For the Year 1909.

—:O:—

HEALTH DEPARTMENT,
BOROUGH OFFICES,
BOURNEMOUTH.

February, 1910.

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 the 31st December, 1909.

POPULATION.

There are at the present time 14,691 houses erected in the Borough of Bournemouth, and of these about 275 are unoccupied or in process of completion. If we take $5\frac{1}{2}$ persons in each house as a standard, a popula-

tion of 79,288 will be arrived at, and this in my judgment would represent the true population of the Borough.

The class of houses at present in course of erection in Bournemouth is of the villa type, detached and semi-detached, the building efforts being especially evident in the outlying districts, mainly at Southbourne, Winton and Richmond Park.

For the purposes of this report I shall calculate my Birth and Death rates on the above estimate of 79,288.

CLIMATE AND SOIL.

Bournemouth is built on a sandy subsoil, the dry and porous nature of which makes it an ideal formation from the hygienic standpoint. Sheltered to the north and east, and wooded with pines and deciduous trees to such an extent that it is in reality a "forest city," Bournemouth has an equable temperature throughout the year. The mildness of its winter is well recognised; and in the summer the fresh sea breezes passing inland through the open chines, and the luxuriant foliage of the tree-shaded walks of the town combine to make the place a health and holiday resort as acceptable in the summer months as it is in the winter. The area of the County Borough is exceptionally large, relative to the number of houses and inhabitants, and it therefore offers an unusual variety of climate—woods and sea, cliff and valley.

ACREAGE.

The area of the Sanitary District of Bournemouth in the year 1856 was 1,140 acres; the area was increased in the years 1876, 1884, 1889, and 1901, and the area of the County Borough at the present time is 5,850 acres.

On our estimated population of 79,288, this gives us 13.55 persons per acre.

NEW BUILDINGS.

In the following table I give the number of new buildings erected in the County Borough during the past 10 years. Your Council will note that there has been a continual increase in the number of buildings erected each year, this increase occurring mainly in the outlying districts.

Year.	Houses.	Large additions, Stables, Workshops, and other buildings.	Total.
1900	174	97	271
1901	200	122	322
1902	294	99	393
1903	436	120	556
1904	440	106	546
1905	479	103	582
1906	493	98	591
1907	522	193	625
1908	549	90	639
1909	566	79	645
	4153	1017	5170

BIRTH RATE.

The total number of Births registered in the District was 1,203 ; of these 634 were boys and 569 girls. The birth rate calculated on the basis of 79,288 of population is 15.17 per 1,000, which is a slight increase on the rate for the year 1908. This moderate birth rate is explained by the fact that a large proportion of the inhabitants of Bournemouth are past the child bearing age, and it indicates that very many of the inhabitants come to live in the town during the later years of life on account of the remarkable climatic advantages. I am of opinion, however, that the birth rate among the artizan classes compares favourably with the average birth rate throughout the country.

DEATH RATE.

The total number of Deaths registered from all causes within the County Borough was 909, which on

the population estimate of 79,288 gives a death rate of 11·46 per 1,000. These deaths are made up as follows :—

Visitors	...	...	181
Residents	...	...	728
Total	...	...	909

It will thus be seen that to the death rate of 11·46 per 1,000 the deaths of visitors contribute 2·28, and the residents contribute 9·18 per 1,000 of the population.

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

	1904.	1905.	1906.	1907.	1908.	1909.
Deaths of Visitors ...	260	227	191	208	206	181
Do. Residents	612	609	780	619	728	728
Totals ...	872	836	971	827	934	909

It will be seen that there has been a slight decrease in the total number of deaths during the past year as compared with the year 1908.

I herewith append a tabulated statement for the year 1909, showing the annual death rate per 1000 from all causes, and from certain epidemic diseases.

These may be contrasted with the returns from our own County Borough :—

ANNUAL RATE PER THOUSAND LIVING.												
	Birth Rate.	Death Rate.		Principal Epidemic Diseases	Small Pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhoea.	Deaths under 1 year per 1000 births.
	Col 1	2	3	4	5	6	7	8	9	10	11	12
England & Wales	25·6	14·5	14·5	1·12	0·00	0·35	0·09	0·14	0·20	0·06	0·28	109
76 Great Towns	25·7	14·7	15·6	1·42	0·00	0·48	0·11	0·15	0·24	0·06	0·38	118
143 Smaller Towns...	24·8	13·9	14·5	1·08	0·00	0·33	0·09	0·16	0·17	0·06	0·27	111
England and Wales less the 219 Towns ...	25·6	14·5	13·6	0·80	0·00	0·21	0·06	0·14	0·16	0·06	0·17	98
Bournemouth...	15·17	11·46		0·43	0·00	0·08	0·03	0·11	0·06	0·01	0·12	94

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

DISEASE.			1905.	1906.	1907.	1908.	1909.
Small-pox	...	...	'0	'0	'0	'0	'00
Measles	...	...	'03	'1	'0	'03	'08
Scarlet Fever	...	...	'01	'0	'01	'01	'03
Whooping Cough	...	...	'03	'1	'0	'06	'06
Diphtheria & Membranous Croup	...	...	'22	'07	'09	'14	'11
Croup	...	...	'0	'0	'0	'0	'00
Fevers {	Typhus	...	'0	'0	'0	'0	'00
	Typhoid or Enteric Fever	...	'01	'0	'02	'02	'00
	Other Continued	...	'0	'0	'0	'0	'00
Epidemic Influenza	...	...	'06	'05	'04	'02	'02
Cholera	...	...	'0	'0	'0	'0	'00
Plague	...	...	'0	'0	'0	'0	'00
Diarrhœa	...	...	'18	'2	'08	'03	'12
Enteritis	...	...	'06	'1	'06	'11	'07
Gastritis	...	...	—	—	—	—	'06
Puerperal Fever	...	...	'0	'0	'0	'01	'01
Erysipelas	...	...	'01	'0	'01	'0	'05
Other Septic Diseases	...	...	'0	'0	'0	'0	'00
Phthisis	...	...	2'09	1'46	1'53	1'64	1'89
Other Tubercular Diseases	...	...	'48	'4	'48	'57	'15
Cancer (Malignant Disease)	...	...	1'10	1'07	'85	1'08	'95
Bronchitis	...	...	'51	'7	'63	'65	'88
Pneumonia	...	...	'62	1'07	'72	'96	'59
Pleurisy	...	...	'01	'1	'02	'02	'00
Other Diseases of Respiratory Organs			'0	'0	'0	'0	'00
Alcoholism: Cirrhosis of Liver	...	...	'24	'1	'05	'15	'05
Venereal Disease	...	...	'03	'04	'01	'01	'03
Premature Birth	...	...	'45	'67	'52	'5	'27
Diseases and Accidents of Parturition			'1	'08	'06	'10	'06
Heart Disease	...	...	2'16	2'45	1'95	1'94	2'24
Accidents	...	...	'27	'41	'24	'34	'17
Suicides	...	...	'1	'08	'09	'05	'05
All other Diseases	...	...	3'81	4'58	3'78	3'76	3'44

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

	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.
Deaths under one year	1'47	1'68	1'94	1'5	1'92	1'39	2'11	1'28	1'39	1'38
Over 1 year & under 5	74	'34	'87	'66	'67	'66	'85	'46	'85	'65
“ 5 “ 15	15	'44	'42	'35	'31	'43	'56	'53	'22	'28
“ 15 “ 25	25	'91	'82	'84	'90	'84	'87	'65	'65	'68
“ 25 “ 65	65	5'05	5'42	4'77	5'15	5'89	5'30	5'52	4'65	5'46
“ 65 and upwards		2'86	3'00	3'54	3'31	3'81	3'86	4'49	4'02	3'60
Totals	...	11'47	11'68	12'29	11'83	13'56	12'64	14'15	11'28	12'26

In 1904 the total deaths under 1 year of age was 123.

" 1905	"	"	"	92.
" 1906	"	"	"	145.
" 1907	"	"	"	94.
" 1908	"	"	"	106.
" 1909	"	"	"	110.

Of these 22 were premature births, many only living a few minutes or days.

Number of Suicides in 1904	...	...	4
" " 1905	...	...	7
" " 1906	...	...	6
" " 1907	...	...	7
" " 1908	...	...	4
" " 1909	...	...	6
Deaths from Accident, 1904	...	...	15
" " 1905	...	...	18
" " 1906	...	...	28
" " 1907	...	...	18
" " 1908	...	...	26
" " 1909	...	...	14

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

Name of Institution.	Persons belonging to the District.					Persons not belonging to the District.					Totals for Year.				
	1905	1906	1907	1908	1909	1905	1906	1907	1908	1909	1905	1906	1907	1908	1909
Sanitary Hospital ..	15	9	5	14	10	0	1	2	1	1	15	10	7	15	11
Sanatorium, B'mouth..	1	1	0	0	0	4	4	2	2	5	5	5	2	2	5
Royal Victoria Hospital	22	21	18	14	22	18	17	19	19	18	40	38	37	33	40
Firs Home ..	1	2	3	2	1	13	15	13	13	15	13	17	16	15	16
Royal Boscombe & West Hants Hospital ..	16	29	25	31	23	4	12	13	17	16	20	41	38	48	39
St. Joseph's Home ..	1	0	0	0	1	4	0	4	1	2	5	0	4	1	3
Herbert Home ..	0	0	0	0	0	2	3	0	1	2	2	3	0	1	2
Hahnemann Home ..	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Springb'rne O'phanage	1	1	0	0	0	0	0	0	0	0	1	1	0	0	0
Home of Good Hope ..	1	11	3	3	1	3	7	6	5	1	4	18	9	8	2
House Beautiful Convalescent Home ..	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Victoria Home for Nurses ..	0	3	0	3	0	2	2	3	2	2	2	5	3	5	2
Cripples' Home ..	0	0	0	0	1	0	2	0	0	1	0	2	0	0	2
Sanatorium, Pokesdown	0	3	0	1	0	7	0	3	9	7	7	3	3	10	7
Convent of the Cross, Pokesdown ..	0	0	0	1	0	1	0	0	0	0	1	0	0	1	0
St. Luke's Home, Pokesdown ..	0	0	1	0	0	0	0	1	0	0	0	0	2	0	0
Cottage Home, Cotland's Road ..	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Totals ..	58	80	55	69	59	57	63	66	70	72	115	143	121	139	131

Of the total number of deaths recorded during the past year, I note that there were 273 deaths of persons at 70 years of age and upwards. There has been a considerable increase compared with the number in the previous year; this can be seen in the following table. Ninety-nine of the deaths were of persons aged 80 years and upward, the greatest age of death recorded being 97.

The climatic conditions in the winter are very suitable to old people, and encourage an ever-increasing number of elderly people to come into the town for residence and to enjoy the benefits of our climate in their retirement.

		1904.	1905.	1906.	1907.	1908.	1909.
At 70 years of age	...	14	11	14	11	13	13
" 71	"	7	11	13	19	8	18
" 72	"	16	14	23	16	19	15
" 73	"	9	9	6	14	14	19
" 74	"	12	21	12	10	14	20
" 75	"	13	16	14	15	10	19
" 76	"	8	12	16	12	10	16
" 77	"	14	11	11	15	15	25
" 78	"	9	10	13	12	11	19
" 79	"	9	13	11	5	11	11
" 80	"	6	8	16	13	6	10
" 81	"	8	9	10	9	9	17
" 82	"	11	6	12	11	13	8
" 83	"	11	6	11	15	9	13
" 84	"	7	7	9	9	4	10
" 85	"	12	3	11	6	6	5
" 86	"	6	11	9	6	3	6
" 87	"	2	1	11	1	7	5
" 88	"	2	0	4	4	4	9
" 89	"	2	4	2	3	0	5
" 90	"	3	4	1	3	3	3
" 91	"	0	1	2	1	2	1
" 92	"	0	1	0	1	0	3
" 93	"	0	1	0	0	2	1
" 94	"	0	1	5	1	0	1
" 95	"	0	0	0	1	3	0
" 96	"	0	0	0	11	0	0
" 97	"	0	1	0	0	1	1
" 98	"	0	0	1	0	0	0
" 99	"	0	0	0	0	0	0
" 100	"	0	1	0	0	0	0
		181	183	237	224	197	273

The following table gives particulars of population, births and deaths, etc., for the past twelve years for the whole district :—

No. 1 Table (L.G.B.)

Year.	Population estimated to Middle of each Year.	Births		Total Deaths regist'r'd in the District.				Total Deaths in Public In- stitutions in the District.	Deaths of Non-residents registered in the District.	Deaths of Residents regis- tered in Public Institutions beyond the District.	Net Deaths at all ages belonging to the District.	
				Under 1 year of age.		At all Ages.					No.	Rate*
		No.	Rate *	No	Rate per 1000 Births regist'r'd	No	Rate					
1	2	3	4	5	6	7	8	9	10	11	12	13
1899	58,480	754	13'0	120	159'1	722	12'3	99	216	NOT RECORDED.	506	8'6
1900	60,104	724	12'4	89	122'9	692	11'5	98	189		503	8'3
1901	59,625	1,127	18'9	107	94'9	701	11'6	85	183		372	7'91
1902	61,628	992	16'11	120	120'9	759	12'31	78	206		553	8'97
1903	63,000	1,111	17'6	95	85'5	750	11'92	90	196		554	8'79
1904	64,000	1,101	17'2	123	111'7	872	13'62	134	260		612	9'56
1905	66,000	1,110	16'3	92	82'8	836	12'66	115	227		609	9'23
1906	67,700	1,197	17'68	145	121'1	971	14'34	143	191		780	11'52
1907	73,441	1,206	16'52	94	77'94	827	11'32	121	208		619	8'48
1908	76,527	1,120	14'73	106	94'64	934	12'19	139	206		728	9'51
Av'rages for Years 1899-1908.	65,050	1,044	16'04	109	107'14	806	12'37	110	208		583	9'08
1909	79,288	1,203	15'17	110	91'43	909	11'46	131	181		728	9'18

*Rates in columns 4, 8, and 13 calculated per 1000 of estimated population.

The following table gives causes and ages of all deaths during the year 1909, in the whole County Borough :—

TABLE No. 4 (L.G.B.)

Deaths at the subjoined ages :—

Cause of Death.	All Ages.	Under 1 year.	1 and under 5.	5 and under 15	15 and under 25.	25 and under 65.	65 and upwards.	Total Deaths whether of Residents or Non-residents in Public Institutions in the District.
Small-pox ...	—	—	—	—	—	—	—	—
Measles ...	7	2	4	1	—	—	—	—
Scarlet Fever ...	3	—	1	1	1	—	—	3
Whooping Cough ...	5	1	3	1	—	—	—	—
Diphtheria (including membranous croup)	9	—	3	5	—	1	—	5
Croup ...	—	—	—	—	—	—	—	—
Fever { Typhus ...	—	—	—	—	—	—	—	—
{ Enteric ...	—	—	—	—	—	—	—	—
{ other c'tin'd ...	—	—	—	—	—	—	—	—
Epidemic influenza	2	1	—	—	—	1	—	—
Cholera ...	—	—	—	—	—	—	—	—
Plague ...	—	—	—	—	—	—	—	—
Diarrhoea ...	10	7	2	—	—	1	—	2
Enteritis ...	6	4	—	—	—	1	1	1
Gastritis ...	5	4	—	1	—	—	—	—
Puerperal Fever ...	1	—	—	—	—	1	—	—
Erysipelas ...	4	1	—	—	—	1	2	—
Phthisis (Pulmonary Tuberculosis)	150	1	2	3	20	111	13	34
Other tubercular diseases ...	12	1	5	1	—	5	—	7
Cancer (Malignant disease) ...	75	—	2	—	—	35	38	10
Bronchitis ...	70	12	6	—	—	10	42	1
Pneumonia ...	47	8	7	2	2	13	15	3
Pleurisy ...	—	—	—	—	—	—	—	—
Other diseases of the Respiratory Organs	—	—	—	—	—	—	—	—
Alcoholism (Cirrhosis of Liver) ...	4	—	—	—	—	3	1	1
Venereal disease ...	3	3	—	—	—	—	—	—
Premature birth ...	22	22	—	—	—	—	—	—
Diseases & accidents of Parturition ...	5	1	—	—	—	4	—	5
Heart Disease ...	178	—	2	5	3	66	102	14
Accidents ...	14	3	—	—	1	8	2	3
Suicides ...	4	—	—	—	1	2	1	—
All other causes ..	273	39	12	3	11	81	127	42
	909	110	49	23	39	344	344	131

(TABLE No. 5 L.G.B.)
INFANTILE MORTALITY during the year 1909.
Deaths from stated causes in Weeks and Months
under One Year.

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 1 year.
All Causes.	Certified ...	22	8	11	2	43	17	9	3	9	3	4	4	5	6	2	5	110
	Uncertified	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Common Infectious Diseases.	Small-pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Measles ...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1
	Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
	Diphtheria	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	(including Membranous Croup)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Whooping Cough	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	3
Diarrhoeal Diseases.	Diarrhoea, all forms	...	...	2	...	2	1	...	...	2	...	...	1	...	...	1	...	7
	Enteritis, Muco-enteritis, Gastro-enteritis	...	...	1	...	1	...	...	...	1	...	...	...	2	...	...	...	4
	Gastritis, Gastro-intestinal Catarrh	...	...	...	...	...	3	...	...	1	...	...	...	...	...	...	...	4
	Premature Birth	15	1	2	1	19	1	...	...	1	...	...	...	1	...	...	...	22
Wasting Diseases.	Congenital Defects	...	3	1	...	4	4	...	...	...	1	...	...	...	...	...	...	9
	Injury at Birth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Want of Breast Milk Starvation	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	1
	Atrophy, Debility, Marasmus	2	3	3	...	8	2	3	...	...	...	...	...	...	1	...	...	14
Tuber- culous Diseases.	Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
	Tuberculous Peritonitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Tabes Mesenterica	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
	Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
	Erysipelas ...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Other Causes.	Syphilis ...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	3
	Rickets ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Meningitis... (not tuberculous)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Convulsions	1	1	2	...	4	2	...	...	...	...	...	...	...	...	...	2	8
	Bronchitis ...	...	...	...	...	...	2	2	1	1	1	...	...	1	1	...	2	11
	Laryngitis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Pneumonia	...	...	...	...	...	...	1	1	...	1	...	...	1	...	...	...	4
	Suffocation, overlying	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	2
	Other Causes	4	...	...	...	4	2	1	...	1	1	1	1	...	1	...	...	12
Totals ..		22	8	11	2	43	17	9	3	9	3	4	4	5	6	2	5	110

INFANTILE MORTALITY AND DEATHS FROM INFANTILE DIARRHŒA.

I have in former reports called attention to the freedom of the Borough from deaths under the heading of diarrhœa or enteritis in infants, and this comparative immunity is indicated again in this year's tables. No cause of death is more important as a factor in the production of a high infantile mortality, and as a low infantile mortality is a definite indication that the health standard of a community is high, our record is a matter for congratulation. The small number of deaths from infantile enteritis is to some extent an indirect testimony to the conditions of life and upbringing of the children in the Borough, and is also in some degree indicative of the care which is taken by the milk purveyors in providing a fairly high standard of milk purity. In some municipalities where the infantile mortality is very high an effort is being made to reduce it by the provision of a public milk supply under strict municipal control, for it is an accepted fact that a lamentable lack of intelligence and care is to be found in some country dairies. I trust that the Local Government Board will in the near future bring in a Bill dealing with this most important matter, attention to which is imperative in the interests of our nation.

Although the infantile mortality in the County Borough is very low compared with that of other towns there is still room for improvement. However great the care bestowed on the infants by the parents, there is not infrequently a lack of knowledge concerning the proper feeding and upbringing of the children, and the remedy for this is the education of the parents.

The Health Visitor and the School Nurse in the course of their duties have frequent opportunities of instructing the mothers in the right way to bring up and feed their very young infants, and I believe that a large amount of good will result from this in the near future. With regard to the rising generation, the future mothers of the race, there is an excellent opportunity

offered by the system of elementary education to instil into their minds a proper understanding of the needs of children. I am strongly of opinion that every elder girl in the elementary schools should be instructed in the care of infants. The child is the nation's most valuable asset, and its healthy growth and development are of the highest importance. The school curriculum is already overcrowded with subjects, but some of these might be omitted and a greater amount of attention be given to a subject which would contribute not only to the health of the individual but to the benefit of the nation.

DEATHS FROM CANCER.

The total number of deaths from Cancer still continues to be high, but I cannot add much to what I have written in other years. The cause of this complaint is, in my judgment, largely and mainly due to the habits of the people, in taking a diet which the modern man or woman seems to consider necessary.

By reason of life-long habits which are difficult to break through, this disease will still continue to claim its victims, and when once established in the system, the supposed curative methods are only slightly palliative, and not really curative in any way.

The only true method is the preventative, and the habits of the people must be changed. This effected, the disease would in time disappear, and the curse of cancer cease to afflict the race.

PHTHISIS.

The deaths recorded from phthisis in the town are mainly among those who die in the local institutions, who have come to the town not long before they die, and who cannot therefore be regarded as being of our population; the corrected death rate from phthisis shows that the proportion of residents suffering from this disease is small. It is becoming less usual to send advanced cases of phthisis to Bournemouth, and it is hoped that our local hospitals and invalid homes will

exercise even greater care in the admission of such cases. The diminution in the number is a good sign, and shows that the true reputation of our Health Resort is becoming more widely known ; that is, that Bournemouth can offer such a variety of climate to invalids and convalescents that it is most suitable for the treatment of a very wide range of ailments.

CREMATORIUM.

The Crematorium Committee have, I suppose, finally put aside this important sanitary suggestion, but as a practical sanitarian I am more than ever convinced that this is by far the safest method for the disposal of the dead.

The time will come when public opinion will demand it as a proper and safe method. Expense will be saved, and by reason of the large spaces which the present cemetery system demands, its ultimate adoption will be a necessity.

SCHOOL MEDICAL INSPECTION.

A School Medical Officer was appointed by the Education Authority, and started the organization of School Medical Inspection in the Borough in September, 1908. In June, 1909, the Medical Officer of Health was appointed School Medical Officer, and the late School Medical Officer became Deputy and Assistant Medical Officer of Health and School Medical Officer.

In August, 1909, a Health Visitor was appointed by the Health Authority ; a great part of her work is done in connection with School Medical Inspection, supplementing and being interchangeable with that of the School Nurse.

CONTROL OF INFECTIOUS DISEASES IN THE SCHOOLS.

(a) NOTIFIABLE DISEASES.

As a result of the unification of the Health and School Medical Departments it has been possible to

obtain fuller and more prompt information concerning the existence of any infectious diseases which may occur in the schools ; and this has been followed by a more adequate control of the spread of infection. The fuller organization of this control, based on the efficient administration of the Sanitary Authority, was started in June, and anticipated in great measure the memorandum received in October from the Local Government Board and the Board of Education.

If an elementary school child is notified to the Medical Officer of Health as suffering from an infectious disease, the Education Secretary is informed of the fact, and the parents are instructed that no child shall attend school from that house until fourteen days after the removal of the patient to the hospital and the disinfection of the house, a completing notice being sent to the Education Secretary and to the Head Teacher of the school on the expiration of the fourteen days.

The earliest possible information concerning a notified infectious case in an elementary school child is received from the medical practitioner by the School Medical Inspector in his capacity as Health Department Officer ; the school department and class, if any, of the patient is obtained by the hospital nurse who accompanies the patient in the ambulance to the hospital ; and the class and school are put under immediate supervision. Contact children are watched, and if any show signs of sickening for the disease they are excluded from school at the earliest stage, and are visited by the School Nurse or Health Visitor, unless or until a medical practitioner takes the case in hand. These children do not return to school until it is quite clear that they are free from infection.

It has been proved beyond doubt that the infectious diseases are spread, in the very large majority of cases, by children who are actually sickening for the disease, or who have the disease in such a mild form that they are undiagnosed. Both are contagious, and the class and school supervision described has frequently proved most valuable in the prompt removal

of such children from the class and thus preventing them spreading the disease. If a case of diphtheria has occurred in a school child the same supervision in the class is carried out ; any child who has even slight pharyngeal congestion is swabbed, and the finding of the Klebs-Loeffler bacillus in the culture is followed by the exclusion and supervision of the child concerned. In some cases swabbing of all the children in the class is carried out because a child attending that class has been notified of the disease, irrespective of the existence of any pharyngeal lesion in the children, and carrier cases found in this way to be harbouring the Klebs-Loeffler bacillus are excluded and supervised.

A notice is sent to the Education Secretary and one to the parent when any child is thus excluded. If the child is not notified by a medical practitioner as a true case, and if the supervision has proved that the child has not developed the disease, a notice is sent to the Education Secretary and to the Head Teacher, when, in the opinion of the School Medical Inspector, the child may safely return to school.

In the exclusion mentioned considerable attention was given to those children who were suffering from otorrhea and rhinorrhea. The infection of the two diseases referred to lingers very long in these discharges. An infected child with ear discharge was proved definitely to have spread this disease to three other children ; her diagnosis by the Medical Inspector was followed by prompt exclusion and isolation, and no other cases of disease have occurred in the school.

(b) NON-NOTIFIABLE INFECTIOUS DISEASES.

The information concerning the notifiable diseases is full and accurate, for the primary information is received from a medical practitioner, and moreover, each case is fully investigated as to origin, etc., by an experienced sanitary inspector.

Although these advantages are lacking in the case of non-notifiable minor infectious diseases, it is found

possible to carry out a good deal of supervision in the schools. When the first case of non-notifiable infectious disease occurs in the school the Head Teacher communicates with the School Medical Inspector ; if any child is away from school on account of non-notifiable disease (measles, mumps, whooping-cough, and also ring-worm, etc.), the District School Attendance Officer reports on a form to the School Medical Inspector. Since these diseases are non-notifiable the information received in this way is most valuable, and the cases reported are now recorded in the department of the Medical Officer of Health. The School Attendance Officers have also sent information from time to time concerning absentee children who appear to be suffering from one of the non-notifiable infectious diseases, but who were not attended by a medical practitioner ; and in this way two cases of notifiable infectious disease were discovered, medical attention was obtained, and the child notified of the disease and removed to the Sanitary Hospital. They were mild cases, but had they returned to school whilst still infectious other children would have contracted the disease.

It will thus be seen that information concerning infectious diseases is obtained from many sources ; mainly from the Sanitary Inspectors, the Health Visitor and the School Nurse ; but also from the teachers and School Attendance Officers ; and whilst the keen observation of the individual is exercised with the least amount of extra labour, I believe the intelligent use of that observation should be of the utmost value to both the Education Authority and the Health Authority. I wish to thank the Officers mentioned for the valuable assistance they have given in this and in other ways.

SCARLET FEVER.

During the year, 221 cases of scarlet fever were notified in the County Borough, of which 213 were treated in the Sanitary Hospital. Three of the cases died, giving the low case-mortality of 1·3 per cent.

DIPHTHERIA.

During the year 123 cases of diphtheria were notified in the County Borough. Some of the cases were of a very mild type, but their prompt isolation was undertaken as a strict necessity for the protection of the town against the spread of infection. No patient leaves the Sanitary Hospital until two consecutive negative swabs have been obtained, and in dealing with the house and school contacts of the patients the practical measure of swabbing is largely used. The further administrative means employed in order to prevent the spread of infection are briefly referred to under a later heading, but it may be mentioned here that the good effect of the prompt isolation of patients, and the careful supervision of the contacts, together with the other efficient means employed, is shown in the comparative freedom of the County Borough from extensive infection, an effect which places Bournemouth in the front rank of all the towns.

ENTERIC FEVER.

Nine cases of Enteric Fever were notified in the County Borough during the year.

INFECTIOUS DISEASE.

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.	Puerperal Fever.	Total.	Death Rate.
1905	0	15	1	1	1	0	18	'27
1906	0	5	0	2	1	0	8	'11
1907	0	7	1	2	1	0	11	'15
1908	0	11	2	2	0	1	16	'22
1909	0	9	3	0	4	1	17	'21

The deaths from notifiable diseases remain very low and afford conclusive testimony to the general healthiness of the Borough.

The following table will show the total number of cases notified in the months of the past year :—

Month notified.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Variola.	Erysipelas.	Membranous Croup.	Puerperal Fever.	Continued Fever.	Relapsing Fever.	Totals for each month.
January ...	16	18	1	—	8	—	—	—	—	43
February ...	23	10	3	—	2	—	—	—	—	38
March ...	21	9	—	—	2	—	1	—	—	33
April ...	9	11	—	—	3	—	—	—	1	24
May ...	4	9	3	—	3	—	—	—	—	19
June ...	14	9	—	—	3	—	2	—	—	28
July ...	18	16	—	—	2	—	—	—	—	36
August ...	13	10	1	—	2	—	1	—	—	27
September	19	6	—	—	3	—	1	—	—	29
October ...	25	7	—	—	2	—	—	—	—	34
November	24	13	—	—	4	—	—	—	—	41
December	35	5	1	—	6	—	—	1	—	48
	221	123	9	0	40	0	5	1	1	400

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

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

Notifiable Disease.	At all Ages.	Cases notified in whole district.						Total cases removed to Hospital.
		Under 1.	1 to 5.	At 5 to 15.	Ages—Years. 15 to 25.	25 to 65.	65 and upward.	
Small-pox ...	—	—	—	—	—	—	—	—
Cholera ...	—	—	—	—	—	—	—	—
Diphtheria and Membranous Croup ...	123	4	30	63	11	15	—	110
Erysipelas ...	40	1	1	2	2	31	3	1
Scarlet fever	221	3	44	154	10	10	—	213
Typhus fever	—	—	—	—	—	—	—	—
Enteric fever	9	—	1	1	5	2	—	8
Relapsing fever	1	—	—	—	1	—	—	0
Continued fever	1	—	—	—	1	—	—	0
Puerperal fever	5	—	—	—	3	2	—	1
Plague ...	—	—	—	—	—	—	—	—
Totals	400	8	76	220	33	60	3	333

The following table will shew the notified cases nursed at home or treated in the Isolation Hospital, and the number of deaths :—

Disease.	At all ages.	Removed to Sanitary Hospital.	Nursed at Home.	Total Deaths.	Died in Hospital.	Died at Home.
Small-pox ...	—	—	—	—	—	—
Cholera ...	—	—	—	—	—	—
Diphtheria ...	123	110	13	9=7·3%	5=4·5%	4=30·7%
Membranous Croup...	—	—	—	—	—	—
Erysipelas ...	40	1	39	4	—	4
Scarlet fever...	221	213	8	3	3	—
Enteric fever	9	8	1	—	—	—
Relapsing fever	1	—	1	—	—	—
Continued fever	1	—	1	—	—	—
Puerperal fever	5	1	4	1	—	1=25%
Plague	—	—	—	—	—	—
	—	—	—	—	—	—
	400	333	67	17	8	9

SANITARY HOSPITAL.

During the past year, 333 patients have been admitted into the Sanitary Hospital, of whom 11 died, giving a case-mortality of 3·3 per cent.

The following table gives a summary of the patients and diseases treated in the Hospital since its establishment in 1886 ; and in the succeeding tables is shown the cost of patients and staff during the past five years, and also a statement of stock and loans relating to the land and buildings connected with the Hospital. It will be observed that in the cost per head per day, both for all administrative expenses, and for provisions and stimulants, shows a marked diminution. The possible influence of the increased number of patients in reducing the average cost per head is more than balanced by the greater cost necessitated by certain innovations made in order to increase the efficiency of the work done, and I therefore present this item in my report with the conviction that whilst the well-being of every patient and the efficiency of the wards have been most fully considered, a very great amount of care has been given to the exercise of due economy.

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.	Total of all cases received in Hospital.	Deaths.	Giving a Death Rate p.c. of all cases admitted.	Remarks.
1886	27,000	21	1		15	8		45	1 Variola	2.22	Hospital established this year. One Pavilion and Administrative Block, and a "Lyons" Steam Disinfecter.
1887	32,025	19	4	1		11		35	1 Typhoid	2.85	
1888	33,025	9	5	1		12		27	1 Diph.	3.70	Quarantine Cottages Purchased.
1889	36,376	10	2	1		8		21			
1890	37,320	3	7	1		6		17	1 Typhoid	5.88	Notification of Infectious Diseases Act adopted.
1891	37,781	35	6	5		6		52	1 S.F. 1 Typh.	5.77	
1892	Census Yr. 40,000	76	10	4		9		99	1 Diph.	2.02	
1893	42,000	257	5	5	4	13	19	234	3 S.F. 1 Var. 1 Diph.	1.76	Bournemouth Improvement Act passed. Iron Pavilion erected (8 beds). S.F. very prevalent all over the country. Three Berthon Huts purchased (9 beds). Variola outbreak in the Springbourne Ward. Three of these 14 cases lived outside the Borough, but were caused by cases in our District.
1894	42,000	106	8	3	14	13	22	144	1 Variola 1 Diph.	1.38	
1895	4,000	92	15	5		6	10	118	4 S.F. 3 Diph.	5.93	
1896	50,000	89	22	8	1	17	6	137	2 Diph. 1 Ty. 1 S.F. 1 Brain	3.65	New Pavilion opened, giving additional 26 beds.
1897	53,008	104	27	6		13		150	5 S.F. 2 Diph.	4.9	New Oak floors provided to old block, with additional bath and improved system of heating. Berthon Huts re-painted.
1898	55,000	78	22	7		16		123	1 Pneumon.	1.75	
1899	58,480	271	77	4		12		364	11 Deaths (see report)	2.8	In addition, 41 cases were treated in the Hospital admitted from Urban District of Pokesdown (36 S. F. and 5 Diph.)
1900	60,104	115	58	1		7		181	7 Deaths	3.8	In addition, 23 cases were admitted from the Urban District of Pokesdown (11 S. F., 11 Diph., and 1 Enteric). Including cases from added Districts.
1901	59,625	75	64	16	1	9		167	7 Dip. 3 Ery. 1 Variola	6.5	Ditto. Old Pavilion painted.
1902	Census Yr. 61,628	61	72	9	1	35	9	187	6 Dip. 1 Ery 1 Heart 1 Pneu. 4 Diph.	4.6	
1903	63,000	122	70	7		21		220		1.8	New Observation Wards being erected, also large additions to administration block. 10 cases of Diph. and 1 S. F. were admitted from District of Mudeford.
1904	64,000	95	85	12		27	1	220	6 Dip. 1 S.F. 1 Ery. 3 Pneu. 1 Phth.	5.4	Observation Wards completed and used. Administrative block alterations completed. Grounds remodelled and altered.
1905	66,000	83	110	8		45		246	15	5.7	13 cases admitted from the Districts of Poole, Christchurch, Branksome, Hordle and Canford.
1906	67,700	78	100	9		50		237	8	3.4	Several cases were admitted from outside the District.
1907	73,000	90	79	12		25		203	7	3.3	9 cases were admitted from outside the District.
1908	76,527	85	102	2		36	4	229	15	6.5	12 cases were admitted from outside the District.
1909	79,288	213	110	8		2		335	11	3.2	9 cases were admitted from outside the District.

Sanitary Hospital Expenditure, etc, for the years 1905, 1906, 1907, 1908, 1909.

Month.	Total Expenditure including Repairs, wages, etc.												Expenditure on Provisions only.												Daily average number of persons per month (Inclusive of Staff).				Average cost per head per day.																						
	1905.			1906.			1907.			1908.			1909.			1905.			1906.			1907.			1908.			1909.			1905.			1906.			1907.			1908.			1909.								
	£	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.	£	s.	d.									
JANUARY	232	11	6	220	10	6	284	11	5	211	3	9	311	6	0	60	19	6	47	3	5	65	5	1	54	10	6	63	13	6	48	32	33	87	52	28	36	0	59	77	3	14	4	24	3	9½	3	9½	3	4½	
FEBRUARY	216	9	9	192	15	11	206	11	4	207	10	6	209	1	5	60	17	9	45	14	10	54	16	6	51	3	2	64	8	9	55	78	37	78	43	0	35	38	64	0	2	9½	3	7½	3	5½	4	0½	2	4	
MARCH	364	14	10	356	19	0	337	4	5	287	14	8	450	12	5	57	6	5	55	5	2	76	16	8	50	7	8	65	8	0	52	0	38	71	49	74	38	19	68	61	4	6	5	11½	4	4½	4	10½	4	3	
APRIL	147	10	0	171	17	3	186	8	5	145	1	5	200	17	3	59	3	0	50	18	3	58	11	4	47	1	11	67	8	2	50	93	34	3	39	0	38	7	54	00	1	11	3	4	3	2½	2	6	2	5½	
MAY	222	13	8	191	5	3	272	0	10	229	5	10	215	12	11	60	5	1	52	3	3	49	1	1	47	12	10	54	7	11	48	09	37	0	33	0	41	45	44	42	2	11½	3	0½	5	6	3	7	3	1½	
JUNE	225	3	7	193	3	9	248	16	4	235	17	5	173	13	9	57	5	5	43	15	5	50	11	2	56	18	2	43	18	8	44	93	29	0	31	0	39	7	37	3	3	4	4	5½	5	3½	3	11½	3	1½	
JULY & AUGUST	296	10	6	295	7	1	201	6	6	212	5	10	225	2	6	116	6	7	87	5	8	47	9	1	48	14	0	52	9	1	46	26	26	0	30	0	32	0	49	64	2	3½	3	9	4	3½	4	3½	3	0½	
SEPTEMBER	246	19	5	238	3	7	215	1	5	229	14	7	201	11	0	49	15	4	46	14	4	57	18	1	57	3	8	48	11	0	31	13	35	25	46	6	33	47	46	53	5	3½	4	6½	3	0½	4	7	4	2	
OCTOBER	171	16	11	151	8	8	233	17	3	164	8	5	244	12	9	44	12	7	55	3	0	53	19	4	53	16	3	56	7	7	41	0	43	75	39	0	41	23	57	61	2	8½	2	2½	3	10½	2	7	2	9	
NOVEMBER	210	19	8	241	13	11	196	11	5	227	2	9	195	2	3	56	9	6	69	4	9	60	5	11	72	2	5	72	7	1	45	99	63	0	45	0	52	77	67	2	3	0½	2	7	2	10½	2	10½	1	11½	
DECEMBER	196	3	1	231	3	10	201	15	8	228	18	6	258	18	1	52	19	9	81	6	0	49	16	2	68	15	7	76	3	3	37	68	71	5	37	7	59	5	73	29	3	4½	2	1	3	5½	2	5½	2	5½	
TOTALS	2529	12	8	2484	8	9	2797	15	3	2539	15	7	2948	16	3	676	0	11	634	14	1	679	14	10	634	6	5	717	6	9																					

No 3.—Comparative Statement for 5 Years.

Year.	Average number of persons, inclusive of Staff in Hospital per day.	Total average cost per person per day, which includes all Administrative Exps.			Average cost per person per day for provisions alone, including stimulants.			Maintenance charges Income for the year			Total Expenditure for the year after deducting receipts from patients, into Hospital.			Total of all cases received into Hospital.		
		£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
1905	44.79			1			9½	392	8	3	2137	4	5			246
1906	39.57			5½			10½	259	12	11	2224	15	10			237
1907	40.34			9½			11	447	2	2	2350	3	1			206
1908	39.87			5½			10½	369	0	1	2170	14	6			229
1909	55.97			10½			8½	578	10	7	2369	16	8			333

WATER SUPPLY.

Frequent examinations of the Public Water supply have as usual been made during the year, and the satisfactory character of the water is indicated by the following reports after bacteriological and analytical investigation concerning samples, submitted in March and December respectively :—

(a) 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	25.7	Nitrogen as Nitrates	0.09
Chlorine	2.5	Oxygen absorbed from	
Alkalinity	15	Permanganate at 80° F. :—	
Permanent Hardness	5.2	(a) 15 minutes	...
Free & Saline Ammonia	Trace	(b) 4 hours	0.004
Albuminoid Ammonia	0.0028	Lead	None
		Total Hardness 12.5 = 8.7 grns.	per gal.

BACTERIOLOGICAL.

The number of organisms, which grew at 22° C. was 9 per 1 c. c.

" " " " 37° C. was 9 per 1 c. c.

B. Coli communis was not obtained even from 250 c. c. of the water.

The sample appears to be quite satisfactory from both a chemical and a bacteriological point of view.

(b) 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	25.3	Nitrogen as Nitrates	0.079
Chlorine	3.1	Oxygen absorbed from	
Alkalinity	14.7	Permanganate at 80° F. :—	
Permanent Hardness	2.7	(a) 15 minutes	...
Free and Saline		(b) 4 hours	0.017
Ammonia	0.002	Lead	None
Albuminoid Ammonia	0.005	Total Hardness 12 = 8.4 grains	per gal.

BACTERIOLOGICAL.

The number of organisms growing in 2 days at 37° from 1 c. c. of the sample was

The number of organisms growing in 4 days at 22° from 1 c. c. of the sample was 42

B. Coli, typical or atypical, was not found in 200 c. c. of the sample sent.

REMARKS.

The sample has been found quite satisfactory by both the chemical and bacteriological examinations.

MEAT INSPECTION.

There are now 9 slaughter-houses in the Borough, but no Public Abattoir.

The Slaughter-houses are visited by the Inspectors at the times of slaughter and more attention has been paid to the matter.

SEWER WORKS AND STREET IMPROVEMENTS.

The following is a list of the roads that have been sewered during the past year :—

UNDER THE PRIVATE STREET WORKS ACT, 1892.

Castle Road (2nd portion).
Brassey Road (2nd portion).
Limited Road.
Naseby Road.
Evelyn Road (2nd portion).

SEWERS CONSTRUCTED BY PRIVATE OWNERS.

Alexandra Road.
Hillbrow Road.
St. Luke's Road.
Talbot Avenue.
Hillbrow Road (extension).
Milton Road "
Beechey Road "
Stamford Road "
Burleigh Road "
Heylesbury Road.
Boreham Road.

SEWERS ALSO CONSTRUCTED BY CORPORATION.

Extension of Sewer—Talbot Road.
 " " East Cliff Road.
 " " Calvin Road.
 " " Cambridge Road.

FACTORIES AND WORKSHOPS ACT, 1901.

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

Factories, Workshops, Laundries, Workplaces and Homework.

I.—INSPECTION

OF FACTORIES, WORKSHOPS AND WORKPLACES.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Inspections.	Number of— written Notices.	Prosecu- tions.
Factories (including Factory Laundries)...	83	34	—
Workshops (including Workshop Laundries)	1908	80	—
Workplaces (other than Outworkers' pre- mises included in Part 3 of this Report)	63	3	—
Total	... 2054	117	—

2.—DEFECTS FOUND

IN FACTORIES, WORKSHOPS AND WORKPLACES.

Particulars.	Found.	Remedied.	No. of Defects. Referred to H.M. Inspector.	No. of Prosecu- tions.
<i>Nuisances under the Public Health Acts:—</i>				
Want of cleanliness ...	32	32	—	—
Want of ventilation ...	2	2	—	—
Overcrowding ...	5	5	—	—
Want of drainage of floors ...	—	—	—	—
Other nuisances ...	15	15	—	—
<i>Sanitary accommodation:</i>				
Insufficient ...	3	3	—	—
Unsuitable or defective ...	15	15	—	—
Not separate for sexes ...	2	2	—	—
<i>Offences under the Factory and Workshop Act:—</i>				
Illegal occupation of under- ground bakehouse (s. 101)	1	1	—	—
Breach of special sanitary re- quirements for bakehouses (ss. 97 to 100) ...	27	27	—	—
Other offences (excluding offences relating to outwork which are included in Part 3 of this report) ...	—	—	—	—
	102	102	—	—

3.—HOMEWORK.

OUTWORKERS' LISTS, SECTION 107.																			OUTWORK IN UNWHOLESOME PREMISES, SECTION 108.			OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110.		
NATURE OF WORK.	LISTS RECEIVED FROM EMPLOYERS						ADDRESSES OF OUTWORKERS.			Notices served on Occupiers as to keeping or sending lists. (10)	PROSECUTIONS.		Inspections of Outworkers' premises. (13)	In-stances served. (14)	Notices served. (15)	Prose-cutions. (16)	In-stances. (17)	Orders made (S. 110). (18)	Prose-cutions (Sects. 109, 110). (19)					
	Sending Twice in Year.		Sending Once in Year.		Received from other Councils. (8)	For-warded to other Councils. (9)	Failing to keep or permit in-spection of lists. (11)	Failing to send lists. (12)																
	Lists. (2)	Outworkers. (3)	Work-men. (4)	Outworkers. (5)					Con-tractors. (6)		Work-men. (7)													
(1)	66	—	290	3	—	12	4	28	3	—	—	268	4	4	—	—	6	—	—					
Wearing Apparel—																								
(1) making, &c. ...																								
(2) cleaning and washing ...																								
Lace, lace curtains, and nets ...																								
Artificial flowers ...																								
Nets, other than wire nets ...																								
Tents ...																								
Sacks ...																								
Furniture and upholstery ...	4		14									17	1	1										
Fur pulling ...																								
Feather sorting ...																								
Umbrellas, &c. ...																								
Carding, &c. of buttons, &c. ...																								
Paper bags and boxes ...																								
Basket making ...																								
Brush making ...																								
Racquet and tennis balls ...																								
Stuffed toys ...																								
File making ...																								
Electro-plate ...																								
Cables and chains ...																								
Anchor and grapnels ...																								
Cart gear ...																								
Locks, latches and keys ...																								
Pea picking ...																								
TOTAL ...	70	—	304	3	—	12	4	28	3	—	—	285	5	5	—	—	6	—	—					

4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year.				Number
Bakehouses	...	...	...	77
Dressmakers and Milliners	...	...	...	160
Tailors	...	...	...	91
Bootmakers, &c.	...	...	...	74
Laundries	...	...	...	81
Builders and Carpenters	...	...	...	53
Metal Workers	...	...	...	37
Cycle Builders	...	...	...	26
Cabinet Makers and Upholsterers	...	...	...	26
Coachbuilders	...	...	...	16
Kitchens of Restaurants, &c.	...	...	...	31
Watchmakers, &c.	...	...	...	12
Miscellaneous	...	...	...	58

5.—OTHER MATTERS.

Class.	Number
<i>Matters notified to H.M. Inspector of Factories :—</i>	
Failure to affix Abstract of the Factory and Workshop Act (s. 133)	53
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5)—	
Notified by H.M. Inspector	6
Reports (of action taken) sent to H.M. Inspector	6
Other Notices to H.M. Inspector <i>re</i> fixing of Machinery on premises	4
<i>Underground Bakehouses (s. 101) :—</i>	
Certificates granted during the year	Nil
In use at the end of the year	7

From the foregoing report your Council will be able to estimate that the County Borough has continued to maintain its character as a healthy Municipality, and that health which is sought, can be found by a residence in some portion of your extensive Borough.

I think I may claim, after 36 years' service in the Borough, that the Sanitary Department in this town has not been wanting or incapable of successfully securing that the reputation of the Borough shall not suffer or be menaced by any neglect on their part. May I here bear my testimony to the spirit which animates the whole Department, and secure for them in some degree, your kindly appreciation.

I remain, Gentlemen,

Yours obediently,

PHILIP W. G. NUNN,

Medical Officer of Health.

COUNTY BOROUGH OF BOURNEMOUTH.

SANITARY INSPECTOR'S DEPARTMENT,

March 1st, 1910.

TO THE MAYOR AND TOWN COUNCIL,
COUNTY BOROUGH OF BOURNEMOUTH.

MR. MAYOR AND GENTLEMEN,

I have the honour to submit for your consideration the Annual Report of works carried out by this Department for the year 1909.

Two important changes have taken place during the year in the administrative work of the Department, viz. : the co-ordination of the Health and Educational Authorities, which should secure more thorough supervision of the health conditions affecting the children attending the Elementary Schools, and secondly, the reorganization of the duties relating to the Inspection of the Food Supplies of the Borough, which are as follows :—

A special Inspector has been appointed to act as the executive officer under the Food and Drugs Act, under directions received from, and as the Deputy of the Chief Inspector, the latter to act in co-operation and consultation from time to time with the Medical Officer and his Assistant.

The District Sanitary Inspectors to be responsible for the general supervision of the Food Supplies, and premises used for the sale of perishable articles of Food as required by the sections of the Public Health Acts under the direction of the Chief Inspector.

Owing to the great area of the Borough this arrangement will ensure more thorough, systematic, and frequent inspections than under the previous system, when the Food Inspector was responsible for all the duties under Food and Drugs Act, and the Food Supplies generally.

The question of an additional Destructor for the disposal of house refuse has been receiving the attention of your Authority during the year, but the difficulty of securing a site appears to be almost insurmountable.

The arrangements made for conveying the refuse to the old brick fields outside the Borough is the best that can be done under the circumstances, but it is to be hoped that this will be substituted in the near future by a more sanitary and up-to-date method of disposal.

The same action and methods have been adopted in dealing with the breeding places of the house-fly as were recommended in 1908, and the two years' special efforts have without doubt effected a great diminution in the number of this household annoyance during the Autumn season.

Particular attention was paid to the Bakehouses in the late Autumn, as when the weather becomes cooler these places are then much more infested with flies.

A circular letter was sent to Jobmasters, owners of Stables, Marine Store Dealers and other owners of premises where temporary accumulations of manure or refuse are stored, and public attention being called to the question, has no doubt influenced many persons to take private action, and thus helped to secure the satisfactory result mentioned.

The action taken by your Authority for the extermination of rats in certain parts of the Borough has been appreciated by many Burgesses, and the complaints received have been but few during the last four months.

A great sanitary and general improvement has been effected in the cleanliness and sanitary condition of the conveniences at the Hotels and Public Houses

since your Authority arranged for the regular and systematic cleansing of such premises which are accessible to the general public.

The arrangements made have proved to be satisfactory both to the Hotel Proprietors and the general public, and also saved your Authority a considerable outlay.

Another important sanitary improvement has been effected by continuing out to sea the storm water overflow in the Alum Chine

This improvement will remove the cause of complaints from persons frequenting this naturally beautiful and popular Chine.

A special inspection has been made of the 57 Hair-dressers' and Barbers' Saloons throughout the Borough, with the view of bringing the same up to a more uniform standard of sanitation.

It is with much pleasure I am now able to report that this object has been attained in every instance.

The Owners and Proprietors at once willingly complied with the Preliminary Reports sent under your Authority in a most generous spirit, although, in some cases, it entailed considerable expense.

A Special Report was presented to your Authority in November last as to the unsatisfactory and insanitary condition of many of the private Right-of-Ways and Back Roads in the Borough.

These premises not being repairable by your Authority receive but little attention from the owners or occupiers, either as to re-metalling, scavenging, or drainage ; the consequence is, the surface soil becomes polluted from collection of general refuse, stagnant mud, and surface water. Such premises not only constitute a danger to health to the occupants of houses abutting, arising from the stagnant mud and refuse in wet weather, and from the injurious dust in dry weather, but also reflect adversely on the general appearance and cleanliness of our Borough.

Bournemouth has always been noted for its good public roads and their general cleanly appearance, and it is to be hoped that the action which your Authority now proposes to take will secure the same excellent condition in the 19 back Roads and paths as reported.

During the last few months of the year special attention has been paid to the condition of unpaved back yards of the poorer parts of the borough, many of which, I regret to say, are in a neglected and insanitary condition.

I consider this, and the keeping of animals and poultry in confined "home-made" houses and runs, close to dwelling houses, constitute two of the worst features of these districts, and I hope during the coming year the District Inspectors will be able to give more time to general inspections, and thus effect considerable improvement, and remove what is really a menace to health.

FACTORY AND WORKSHOP ACT, 1901-1907.

The total number of workshops and workplaces now registered in the Borough is 742, an increase of 31 on last year.

During the year 107 new workshops have been registered, 105 work rooms have been measured, and cards *re* cubic space, etc., have been supplied to the occupiers.

All the premises registered have been inspected during the year; these inspections have been made systematically, and as occasion has required, with the view of detecting any nuisance arising from overcrowding, insufficient ventilation, defective sanitation, uncleanness, and generally to enforce the special requirements of the Acts.

In all cases where nuisances have been found to exist, notice has been given to the owner or occupier of the premises to remedy the defects, and it is very satisfactory to be able to report that in every case the nuisance has been abated without legal action.

During the year 2,054 inspections have been made, and 117 notices have been served.

In one workshop, in which more than 40 hands were employed, structural alterations were carried out under advice of the Captain of the Fire Brigade and your Inspector, in order to provide additional means of escape in case of fire.

The question of framing Bye-laws for the more efficient provision of Fire Escape in case of Workshop and Workplaces situate on and above the first storey of premises is receiving the attention of your Sanitary Committee.

The following is the list of workshops on the register at the end of the year, classified according to trade, and showing the number of rooms occupied :—

Trade.	Premises Registered.	Rooms Occupied.
Bakehouses ...	77	81
Dressmakers and Milliners ...	160	250
Tailors ...	91	114
Bootmakers and Saddlers ...	74	76
Laundries ...	81	189
Carpenters and Builders ...	53	78
Cabinet-makers and Upholsterers ...	26	39
Coachbuilders ...	16	37
Watchmakers, etc. ...	12	19
Kitchens of Restaurants, etc. ...	31	31
Metal Workers, etc. ...	37	41
Cycle-builders and Motor Works ...	26	27
Miscellaneous ...	58	68
Total ...	742	1050

During the past few years a number of the occupiers of workshops have had mechanical power installed on their premises.

In many instances the power merely consists of a small electric motor fixed to a wall in the workroom.

The fact of there being mechanical power on the premises converts the workshop into a factory.

With the exception of the provision of closet accommodation and means of escape in case of fire, these premises are therefore no longer subject to the control or supervision of your Authority.

A separate code of sanitation, which is enforced by His Majesty's Inspectors, is provided by the Act for Factories.

Considering the large areas under the control of H.M. Inspectors of Factories, it does not seem possible for them to give the same frequent and periodical inspection as a Local Inspector, and the standard of sanitation may in consequence not be so uniformly maintained.

BAKEHOUSES.

Of the 77 bakehouses occupied in the Borough, six are occupied as underground bakehouses and the remainder are on, or above, the ground level.

All the underground bakehouses are certified by your Authority to be suitable as regards light, ventilation, construction, etc., to be used as bakehouses.

On making a general inspection a basement room was found to be used as a bakehouse, and on being reported to the Sanitary Committee it was decided that a letter of warning should be sent to the occupiers by the Town Clerk.

During the first week of 1910 the bakehouse was closed, and new premises were secured by the occupier on the ground level.

In three bakehouses structural alterations have been carried out, and the work supervised by this Department.

One certified underground bakehouse has been closed during the year.

The whole of the bakehouses in the borough have been cleansed or limewashed twice during the year, in accordance with the requirements of the Act.

KITCHENS OF RESTAURANTS, &c.

These premises have been regularly inspected during the year, and in three instances it was found necessary to serve notices requiring the abatement of nuisances.

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

HOMEWORK.

During the year 73 lists containing the addresses of 320 "Outworkers" have been received.

Twenty-eight of these addresses were outside of the Borough, and the usual particulars were sent to the Authorities of the District in which the work was done.

Four addresses were received from outside Authorities.

285 visits were made to outworkers' premises, and in only five instances was it found necessary to serve notices for the cleansing of the premises, and in one case for the abatement of a nuisance arising from a defective w.c.

Three employers of outworkers failed to send in their List of Outworkers at the specified time.

In each case a letter of warning was sent, under your Authority, and the requirements were subsequently complied with.

Six cases of infectious disease occurred in outworkers' premises.

Each case was immediately removed to the Sanitary Hospital, and the workrooms, clothing, and articles in process of being made were subjected to the usual disinfection by your Disinfectors.

SHOP HOURS ACT, 1892-1895.

The object of this Act is to prevent the employment of "young persons" (under the age of 18 years) for more than 74 hours, including meal hours, in one week.

During the year 322 visits have been made to shops in the Borough under this Act, and it is satisfactory to note that in no case has a "young person" been found to be employed more than the specified number of hours.

In 52 instances young persons were found to be employed in shops in which the notice, as required by Section 4 of the Act, was not exhibited.

Notices were delivered to each of these premises, and the occupiers were warned by letter.

SEATS FOR SHOPS ASSISTANTS ACT.

When making inspections under the Shop Hours Act enquiries were also made as to the provision of seats for the female assistants.

Fifty-nine visits were made to shops in which female assistants were employed, and only one shop was found without a sufficient number of seats.

A letter of warning was sent, and the Employer was requested to provide additional seats.

This request was subsequently complied with.

One complaint only has been received during the year, and on investigation being made no contravention of the Act was found.

EMPLOYMENT OF CHILDREN ACT, 1903.

On 79 occasions inspections have been made of the Borough after 9 p.m. for the purpose of detecting any offence against the provisions of this Act.

Sixteen children were found employed in contravention of the Act.

In each case letters of warning have been sent either to the parent or employer, sometimes to both, but in no case has your Committee considered it necessary to take legal proceedings.

Special visits were also made to the hairdressers' premises during the year, but in no case were children found employed after the legal time.

During the year five copies of licenses granted under the Prevention of Cruelty to Children Act, 1904, for children to take part in public entertainments, have been received, and on each occasion the place of entertainment was visited and the condition of the license enforced.

In one instance it was considered necessary to ask the Medical Officer of Health to examine three boys giving a gymnastic performance.

Written notice was given to the person in charge to allow longer breathing time between the movements, one of the boys being a "bad breather."

During the past six months a joint Committee of your Educational and Sanitary Committees have been engaged in drafting very complete Bye-laws relating to the Employment of Children.

These Bye-laws were formally adopted by your Authority at their last Council meeting, and are now only awaiting the approval of the Local Government Board.

By this adoption it will be possible to efficiently control the duties under this Act, and the result will, it is hoped, be more satisfactory, both to the Employers and the Children.

SMOKE NUISANCES.

During the year eleven general inspections of the Borough have been made with the view of detecting any nuisance arising from black smoke, and in 22 instances observations of 60 minutes duration have been made of special premises.

In no case has it been found necessary to take formal action, but letters of warning were sent in five instances.

REGISTRIES FOR FEMALE DOMESTIC SERVANTS.

During the year Bye-laws with respect to Registries for Female Domestic Servants were made by your Authority, and it was decided that the duties should be carried out by this Department.

An inspection was made of the Borough, and 41 premises were found in which the business of a Servants' Registry was carried on.

Each of these premises have been visited, and a copy of the Bye-laws left with the Proprietor, with particulars as to the books required to be kept and other information.

At the end of the year 27 persons had applied to be registered, and inspections are now being systematically made to see that the Bye-laws are being complied with.

MIDWIVES ACT, 1903.

Up to September last the duties of the District Council under this Act were administered by one of the Inspectors, when your Committee appointed Miss Gray as Health Visitor, and the duties have since been taken over by her acting under the direct instructions of the Medical Officer of Health.

During the nine months 19 midwives gave notice to your Authority of their intention to practice in the Borough, and 81 visits were made for the purpose of enquiring into the mode of practice and to examine the books, appliances, etc., of the midwives.

January to September inclusive :

Notifications of practice	...	19
Notifications of stillbirths	...	11
Copies of Medical Help Records		12

SHOP INSPECTION.

During the year 2,431 visits were made to shops in the Borough in respect to cleanliness of premises, stores, &c., and the following articles of food were destroyed as unsound and unfit for human consumption.

Meat	...	...	1,261 lbs.
Fruit	...	1 lb., and 2 parcels	
Nuts	...	...	120 lbs.
Chickens	...	...	82
Turkeys	...	...	4

SLAUGHTERHOUSES.

There are nine slaughterhouses in the Borough, and 297 inspections have been made ; the regulations as to periodical limewashing enforced, nine notices as to this limewashing having been served.

In four instances it was found necessary for your Inspector to take action for the abatement of nuisances.

DAIRIES, COWSHEDS AND MILK SHOPS ORDERS.

463 Inspections have been made of the Cowsheds, Dairies and Milk Purveyors in the Borough, and the regulations relating to cleanliness, limewashing and general sanitation have been enforced.

Improvements have been carried out at one dairy, and two new premises have been erected ; also four new milkshops have been opened during the year. The half-yearly limewashing of premises has in every instance been carried out after notice given by your Inspector.

FRIED FISH SHOPS.

There are now 12 of these shops in the Borough, and, from time to time, inspections have been made as to the cleanliness of premises, soundness of fish supplies and ingredients used in the trade.

I herewith submit particulars under separate headings detailing the various Sanitary operations carried out by the Department :—

SUMMARY OF SANITARY OPERATIONS IN EACH DISTRICT

For the year ending December 31st, 1909.

NUISANCES.

	No. 1 District.	No. 2 District.	No. 3 District.	No. 4 District.	Totals.
Complaints attended to ...	87	*407	98	106	698
Visits <i>re</i> nuisances ...	868	306	630	990	2794
Nuisances <i>re</i> Infectious Cases ...	462	16	108	667	1253
Total No. of visits <i>re</i> nuisances ...	1441	320	1199	1644	4604
General inspections ...	26	—	83	49	158
Number of premises inspected ...	528	182	1657	512	2879
Tests <i>re</i> nuisances ...	74	—	66	75	215
Total number of visits for year ...	1676	530	919	1628	4753

INFECTIOUS DISEASE.

Enquiries for reports to M.O.H. ...	101	111	40	156	408
No. of smoke tests applied ...	83	33	27	209	352
No. of houses with defects ascertained ...	65	20	11	97	193
Total No. of visits... ...	148	170	60	343	721

NEW BUILDINGS.

Water tests ...	241	368	87	95	791
No. of re-tests ...	38	15	20	38	111
Smoke tests ...	193	279	51	70	593
No. of re-tests ...	28	11	6	9	54
Total number of visits ...	486	615	212	212	1525

PRIVATE INSPECTIONS.

Examinations for reports ...	48	12	114	63	237
Other visits ...	423	34	953	560	1970
Reports (water) ...	12	8	61	78	159
Reports (smoke) ...	18	9	64	52	143
Total No. of visits... ...	531	63	1192	735	2521

* Including complaints *re* Cesspools.

WINTON DRAINAGE.

Plans deposited, checked, and reported on...	...	...	...	134
Drains tested with the water test ...	...	...	...	136
Drains tested with the smoke test ...	...	...	...	92
Visits (including supervision of work) ...	...	...	...	747

COMMON LODGING HOUSES.

There are only two registered common lodging houses in the borough.

The premises in both instances have been kept in clean and satisfactory condition, and no case of infectious disease has been notified.

The general supervision of these premises are under the control of the Police.

INFECTIOUS DISEASE.

During the year 392 reports, as per undermentioned Table, have been made to the Medical Officer of Health as to infectious cases notified.

The drainage and sanitary arrangements of the premises have been examined and tested, and 193 preliminary notices have been served on the owners and occupiers for the abatement of nuisances ascertained.

These notices have in all cases been complied with satisfactorily.

The house drainage and sewers have also been flushed and disinfected where necessary.

In cases nursed at home the District Inspector leaves a pamphlet form of suggestions at the house, giving particulars as to nursing, disinfection, penalties, etc.

REPORTS OF INFECTIOUS CASES.

				District 1.	District 2.	District 3.	District 4.	Totals.
Scarlet Fever	...	...	...	47	52	23	96	218
Diphtheria	...	...	...	48	14	9	46	117
Typhoid Fever	...	...	...	5	2	2	2	11
Erysipelas	...	...	...	8	11	4	16	39
Puerperal Fever	...	...	...	2	—	1	3	6
Continued Fever	...	...	...	—	—	—	1	1
Totals reported				110	79	39	164	392
Houses with defects ascertained				65	20	11	97	193

I herewith append list of works carried out for the disinfection of premises, clothing, etc.

Particulars *re* Disinfection.

NOTIFIABLE DISEASES.

	District 1.	District 2.	District 3.	District 4.	Totals.
No. of rooms disinfected	133	97	93	210	533
No. of rooms cleansed and limewashed	39	4	40	90	173
No. of articles disinfected	181	105	138	370	794
No. of house drains flushed with disinfectants	85	1	1	3	90
No. of notices to Public Librarian ...	18	10	6	29	63
No. of books disinfected	13	25	16	2404	2458
No. of articles disinfected at Sanitary Hospital	—	—	—	—	4885
No. of Wards disinfected at Sanitary Hospital	—	—	—	—	138
No. of times drains flushed	—	—	—	—	146
No. of articles destroyed	33	17	128	94	272
No. of visits	236	71	139	449	895

NON-NOTIFIABLE DISEASES.

No. of certificates <i>re</i> Phthisis ...	17	—	15	28	60
No. of rooms fumigated after Phthisis	21	2	18	37	78
No. of articles removed	80	25	160	71	336
No. of rooms disinfected after other non-notifiable diseases	39	30	63	41	173
No. of visits	77	10	119	129	335
One Ward repainted at Victoria Hospital.					
Seven Wards fumigated at Hospital.					

WINTON DISTRICT.

CESSPOOL DRAINAGE AT WINTON AND POKESDOWN.

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

WINTON DISTRICT.

No. of cesspools emptied	...	...	350
No. of loads of sewage removed ...	...	...	775
No. of cesspools condemned and filled in	...	...	101

POKESDOWN DISTRICT.

No. of cesspools emptied	...	...	...	36
No. of loads of sewage removed	...	...	...	87
No. of cesspools condemned and filled in	...	...	...	4

The patent exhaust cart has worked very satisfactorily during the year. Nearly all the sewage from the cesspools emptied during the year was carted and utilized on Strouden Farm.

Expenditure.

	£	s.	d.
Three Corporation men at 25s. per week each	195	0	0
Two horses at 10s. per week each ...	52	0	0
	247	0	0

Repairs.

Painting cart	...	...	...	...	5	0	0

Income.

Amount received for hire of cart : Winton	...	4	10	0
Pokesdown	...	0	10	0
Total cost of working cart for the year	...	247	0	0

PIGGERIES.

(Winton and Moordown Districts).

The Piggeries have been inspected at various times during the past year. There are at present twelve Piggeries, where 73 pigs are kept. These Piggeries are in the Rural parts of this District, all of which are kept in conformity with the Borough Bye-laws.

During the very wet season in the latter end of the year it was almost impossible to keep the premises in a satisfactory condition.

A notice was served in only one instance on the owner to cause the floors of the styes to be repaired and drained. This was complied with at once.

Three Piggeries have been removed.

No complaints have been received as to the Piggeries during the year.

(Pokesdown District).

No. of Piggeries	...	...	...	...	25
No. of pigs kept when last inspection was made...					299

Periodical inspections have been made in this District, and the Bye-laws have been strictly enforced as per your Authority's instructions received after a Special Report had been presented to the Sanitary Committee.

WINTON AND MOORDOWN DRAINAGE.

The special work of re-draining old houses to the new system of sewers in this District has been satisfactorily proceeded with during the year.

Since the main outfall was completed in 1904 2,435 houses (new and old properties) have been drained and connected up to the sewage system, and 1,385 cesspools have been abolished and filled in.

The following works were executed during the past year :—

130 old houses have been provided with entirely new drainage and connected to the public sewer in place of cesspools, pail and privy closets, etc.

272 new houses have been erected in this District and drained to the public sewers.

26 new houses have been erected in the Richmond Park District and drained to the public sewers of Bournemouth. These houses are situate outside the Borough boundary.

428 Total.

In July last a special inspection was made of the Winton District to ascertain the number of houses where the drainage had not been connected to the public sewers.

Eighty-two properties were found to be without proper and sufficient drainage for the disposal of waste water, etc., the old-fashioned pail closets and privy vaults still being in use.

In 68 instances the houses were still provided with cesspool disposal.

A full report was presented to your Authority, and it was resolved that three months' formal notices be served on each of the owners of the properties where pail closets and privy vaults were in use to provide proper and sufficient drainage, in accordance with Section 23, Public Health Act, 1875.

It is satisfactory to report that the notices at the time of writing this report have all been complied with excepting five. These are, however, in hand, and will probably be completed before your next meeting.

Of the 68 remaining houses with cesspool drainage, 23 of which have since been drained, your Authority thought fit to allow the system to remain for the present, as no nuisance exists, and to make a charge of 10s. per load for the emptying of the cesspools.

During the latter part of the year the following roads have been sewered, and in 43 instances the owners of properties have already (without request) connected their house drains to the new sewers and caused the cesspools to be filled in.

Preliminary notices are now being served at the remaining houses, and it is hoped the owners will respond to the request to re-drain their premises and so save the charge of 10s. per load (previously mentioned) for the emptying of the cesspools.

The total number of new houses to be drained in these new roads lately sewered is as follows :—

	No. of houses.
Pine Road (remainder) ...	27
Castle Road „ ...	5
Brassey Road „ ...	5
Evelyn Road South (one section) ...	12
Naseby Road ...	8
Limited Road... ...	13
Abbott Road (remainder) ...	4
Heathfield Road (remainder) ...	5
Total ...	79
Already drained to new sewer ...	43
Total to be drained ...	36

The following new roads still require to be sewered and made up under the Private Streets Works Act, 1892. At the present time there are about 97 houses. The cesspools for these properties are being emptied free of cost by your Authority.

	No. of Houses.
Wynyard Road ...	40
Evelyn Road (2nd Section) ...	7
Easter Road ...	8
Oakwood Road ...	16
Somerley Road (2nd Section) ...	1
Crichel Road ...	13
Victoria Park (Private) ...	9
Balfour Road „ ...	3
	—
	97

MOORDOWN (Old part).

Owing to the great depth of the main outfall sewer passing through the Malvern Road, the Owners of the small properties in this road do not seem anxious to drain their houses. This trunk sewer averages 20ft deep and receives storm water principally from the Wimborne Road and sewers on Mr. J. J. Norton's Estate. No formal action has yet been taken under your Authority. As soon as the by-roads off Malvern Road

are sewered, it will then be necessary to deal with the whole of this District. The names of these by-roads are : Parley Road, Nursery Road (2nd section), Winston Road, Rose Gardens, McWilliam Road and Clarkson Road, comprising about 160 houses, including the undrained houses in Malvern Road. The majority of these houses have large gardens and the closet accommodation is the ordinary pail closet.

POKESDOWN & SOUTHBOURNE.

New sewers have been constructed for the Alexandra Road, Upper Haviland Road Terrace, Hillbrow Estate, Stourfield Estate and Crescent Road.

PUBLIC MORTUARY.

The Public Mortuary built at the Central Depot, was opened on March 28th, 1907.

There are three separate buildings, comprising the Coroner's Court, Mortuary and Post-Mortem Room, all of which are fitted with the latest and most up-to-date arrangements. The general supervision of the premises is under the control of this Department, and printed Regulations as to the general management have been drawn up by your Sanitary Committee and sent to all the Medical men and Undertakers in the Borough.

From January 1st, 1909, to December 31st, 1909, the total number of Inquests was 52 and Post-Mortems 35.

The total cost as to working expenses for the year 1909, so far as this Department is concerned, is as follows :—

	£	s.	d.
Proportion of Attendants' wages for daily cleansing ...	10	8	0
Attendance at Inquests and P.M.s ...	17	15	0
Gas from December 19th, 1908, to December 19th, 1909,			
including meter rent ...		18	3
Disinfectants, Soap, etc. ...		12	1
Laundry ...		7	1
	£30	0	5

Fees received for private use of Mortuary and attendance 2 3 6
 N.B.—The water supply for the Mortuary, etc., is taken from the main supplying the Central Depot and is not separately charged.

PUBLIC CONVENIENCES.

Working expenses of Public Conveniences from December, 1908, to December, 1909.

				£	s.	d.
Repairs to conveniences, including cost of automatic lighting	...	...	...	62	1	0
Wages paid to attendants	...	...	...	389	18	9
Gas and water, and hire of meters	...	...	...	112	6	4
Disinfectants, Soap, Brushes, Laundry Work, etc.	...	...	...	33	2	3½
Painting Conveniences	...	...	...	65	15	1
Total Receipts	...	...	...	805	1	1
Expenses	...	...	...	663	3	5½
Balance				141	17	7½

HOTEL CONVENIENCES.

At the Hotels and Public Houses where the Conveniences are accessible to the general public your Authority have now made arrangements with the Proprietors and Owners for the premises to be daily cleansed by the Corporation Lavatory Cleaners at a certain charge. This has secured a thorough supervision and sanitary improvement, and has proved a most satisfactory arrangement to all concerned.

Statement of Receipts from Public Conveniences from December, 1908, to December, 1909.

Convenience.		January		February		March		April		May		June		July		August		September		October		November		December		Totals.														
		£	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.													
Ladies' Lavatory, near the Pier	...	2	12	6	3	12	1	3	1	4	12	2	9	3	17	14	10	8	39	11	3	31	4	8	9	15	4	4	5	9	2	5	1	158	19	6				
" near the Square	...	2	12	3	8	2	8	5	5	9	12	0	7	14	1	11	19	2	37	5	7	33	8	11	15	6	5	9	16	9	6	13	5	186	10	7				
Gents' near Pier Approach	...	2	12	0	2	9	0	2	3	0	4	7	2	4	13	8	7	8	17	18	5	13	11	3	5	11	6	2	18	6	2	5	0	75	11	5				
" near Lansdowne	...	3	4	4	2	4	10	2	3	11	3	13	9	2	16	6	4	0	10	7	18	7	6	11	10	3	8	2	15	1	2	3	9	46	4	9				
" near Westover Road	...	2	6	1	2	0	6	2	1	7	3	4	11	3	0	10	3	2	5	4	16	5	5	2	4	2	17	11	2	9	8	2	4	8	36	19	11			
" near Bourne Avenue	...	2	7	11	2	1	4	1	15	2	2	16	5	3	0	0	3	2	1	3	11	3	4	16	4	0	2	5	3	1	14	5	34	19	11					
" near Carnarvon Crescent	...	1	18	10	1	12	9	1	18	6	2	1	6	1	16	2	2	11	11	2	3	0	3	8	0	2	6	9	1	13	10	1	14	7	26	6	10			
Ladies' Boscombe Gardens	...	0	9	5	0	8	4	0	9	9	1	8	8	1	10	8	2	13	5	3	19	4	8	6	1	2	6	0	2	0	10	2	0	10	28	10	0			
Gents' Poole Hill.	...	1	18	3	1	11	2	1	15	9	2	8	1	13	4	2	2	1	0	3	18	1	3	19	9	2	6	0	2	0	10	2	0	15	5	21	5	10		
" The Triangle	...	1	9	4	1	7	9	1	2	8	1	13	5	1	10	2	2	1	0	3	2	7	2	6	6	1	10	3	1	6	2	1	0	9	19	12	3			
" Horse Shoe	...	1	14	0	1	10	7	1	4	10	1	12	6	1	9	9	1	15	8	1	17	7	2	6	6	2	3	8	1	5	11	1	2	3	18	5	8			
" Westbourne	...	1	12	10	1	9	3	1	5	7	1	13	3	1	7	1	12	4	1	7	5	2	2	7	1	13	2	1	5	11	1	2	3	18	5	8				
" Boscombe Gardens	...	0	10	5	0	6	8	0	8	0	1	3	1	1	2	5	1	12	9	1	19	1	4	18	11	3	10	6	0	10	7	0	5	0	18	1	8			
" Engine House	...	0	8	5	0	12	0	0	8	7	1	12	5	0	14	8	0	16	10	1	3	7	2	10	1	0	15	2	0	12	3	0	8	2	11	15	2			
" & Ladies' Boscombe Lawn Tennis...	...	0	6	0	0	6	11	0	9	7	0	16	3	0	17	1	1	3	2	1	19	5	1	19	5	0	18	5	0	7	1	0	5	0	10	8	1			
" Bournemouth Lawn Tennis...	...	0	3	9	0	4	0	0	6	0	0	7	8	0	7	3	0	5	1	0	8	6	0	10	0	0	2	11	0	4	1	0	3	3	3	12	6	6		
" Knyveton Lawn Tennis...	...	0	1	2	0	0	11	0	1	0	0	1	9	0	2	0	0	3	2	0	1	6	0	5	5	0	1	7	0	0	8	0	1	2	1	2	3			
" Alum Chine	...	0	10	10	0	14	9	0	19	9	2	11	11	1	16	6	2	17	2	2	5	0	8	3	7	7	6	4	2	7	4	0	18	6	0	30	19	8		
" Durley Chine	...	0	13	2	0	13	5	0	15	7	1	16	6	1	8	2	1	8	1	1	2	3	2	13	7	2	5	6	1	9	1	0	16	0	0	9	9	15	11	1
" Lavatory, Boscombe Cliff Gardens	...	0	1	2	0	0	9	0	0	8	0	1	8	0	2	8	0	2	5	0	3	0	0	6	11	0	6	2	0	2	4	0	1	3	0	4	1	9	4	
" King's Park	...	0	4	5	0	3	11	0	2	9	0	5	9	0	9	11	0	7	3	0	7	11	0	11	3	0	8	11	0	7	8	0	4	7	0	5	8	4	0	0
Ladies' King's Park	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
" Meyrick Park	...	0	2	5	0	1	9	0	2	10	0	3	1	0	6	3	0	5	9	0	4	7	0	4	7	0	4	4	0	0	8	0	1	4	0	17	3	3		
" & Gents' Lavatory, Cemetery Corner	...	2	10	2	1	9	3	1	7	2	1	10	8	1	9	2	1	14	0	1	3	8	0	9	5	0	8	0	2	10	0	2	7	0	1	10	3	11	1	8
Gents' Lavatory, Meyrick Park	...	0	1	1	0	1	1	0	1	5	0	1	8	0	3	11	0	3	1	0	8	7	2	7	5	2	8	0	1	11	7	1	10	10	1	0	2	20	10	8
" Durley Road	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
TOTAL		30	10	9	33	5	8	29	11	2	59	16	0	54	19	4	78	15	7	92	17	2	160	15	9	136	9	5	61	3	4	38	9	6	28	7	5	805	1	1

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 1908 and 1909.

Situation of Meter.	Consumption in 1908.	Consumption in 1909.
Cabstand, Littledown Road...	6,600	6,400
" St. Swithun's Road	8,700	8,800
" Waverley Road	5,400	7,200
Fire Station, Holdenhurst Rd.	75,000	83,400
Cabstand, Meyrick Road	14,700	18,500
" Madeira Road	21,500	24,300
Borough Offices	196,000	193,300
Yelverton Chambers	23,500	27,800
West Gardens Tennis	6,000	5,900
Corporation West Yard	81,800	60,600
Wharf Road Depot	49,900	46,900
Drinking Trough, Chine Rd.	98,600	103,400
Cabstand, Durlay Road	5,600	4,000
" West Cliff Road	17,300	15,300
" No. 1, West Cliff...	16,600	14,300
" Exeter Road	3,700	3,100
West Fire Station	42,600	26,600
Mess Room, Westover Gardens	3,600	3,500
Engine House in Gardens	493,100	743,000
Lansdowne Drinking Trough	52,800	56,300
Cabstand, Charminster Road	5,600	7,700
Cemetery, Wimborne Road...	125,800	134,400
The Refuse Destructor	18,300	51,100
Alum Chine Cliff Gardens	33,000	24,100
Cabstand, Gervis Road	4,000	3,400
" Derby Road	4,200	5,800
Knyveton Road	5,200	5,600
Boscombe Gardens	57,400	52,800
East Yard	645,300	471,800
Cabstand, Spa Road	8,500	11,200
" Adeline Road	10,900	17,700
" Palmerston Road...	5,200	3,200
Boscombe Depot	70,600	82,500
King's Park	60,700	43,100
East Cemetery	85,000	69,000
Sanitary Hospital	...	463,000
Parkwood Road	...	662,000
Queensland Road	...	88,000
Rosebery Road	...	68,500
Clarence Park Road	...	20,900
Stourwood Avenue	...	14,100
Clifton Road	...	21,800
Stourwood Road	...	22,600
Fountain, Parkwood Road	...	12,000
Boscombe Cliff Gardens	...	20,200
Wharncly Road...	...	1,100
Electric Car Sheds	...	3,000
Knyveton Gardens	...	35,700
Meyrick Park Pavilion	...	39,500
*Golf Club i.e. Caddies	...	5,500
Shelters	...	9,900
Bourne Avenue Cabstand	...	31,100
Urinal, Westbourne	...	27,800
" Triangle	...	47,000
" Bourne Avenue	...	15,700
Ladies' Lavatory, Exeter Lane	...	11,800
Winter Gardens	...	9,400
Urinals, facing Pier	...	75,500
The Pier	...	86,600
" (Special for Boats)	...	15,300
Urinal and Cabstand, The	...	19,400
Westover	...	90,700
Urinal & Cabstand, Firs Glen	...	89,100
" Lansdowne Cres,	...	89,100
Urinal & Fountain, Boscombe	...	94,400
Gardens	...	90,000
Urinal, Carnarvon Crescent	...	78,800
	5,175,100	5,646,000

* This meter supplies Bournemouth Golf Club, Meyrick Park Golf Club and Caddies' Shelter, Meyrick Park.

The total decrease of the consumption on the above meters during the past six years, from the amount used in 1903 being 10,384,600.

The following are new meters which have been fixed since 1903.

	1908.	1909.
Bournemouth School	75,700	82,500
Mess Room at Tram Sheds	180,100	161,100
Gervis Road Drinking Trough	13,900	13,200
Bowling Green, Meyrick Park	16,500	32,000
Christchurch Road Depot	77,400	56,200
West Refreshment Rooms (recoverable)	62,500	53,900
East " " "	49,200	65,800
	475,300	464,700

The total decrease of the consumption on the above meters during the past four years from the amount used in 1905 being 414,800 gallons.

	1908.	1909.
Poole Hill Urinal	37,100	65,500
Alum Chine	40,600	59,100
Durley Chine	17,300	21,000
Boscombe Pier	134,800	63,800
The Square, for watering lines	5,600	9,400
Queen's Park Caddies' Shelter	58,200	30,300
	293,600	249,100

The total increase of the consumption on the above meters during the past three years from the amount used in 1906 being 32,000 gallons.

	1908.	1909.
Winton Recreation Grounds	93,600	80,000
Boscombe Refreshment Rooms (recoverable)	7,800	5,900
Pokesdown Tram Sheds	84,600	74,700
Argyll Gardens	56,900	36,100
Fountain, East Beach	19,800	18,700
" West " " "	22,700	10,500
	285,400	225,900

The above show a decrease of consumption of 59,500 gallons.

The total decrease on the various meters as shown being 10,826,900 gallons.

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 five years is as follows :—

1903	1904	1905	1906	1907	1908	1909
6 months consumption.						
6,865,000	4,213,000	4,000	6,000	12,000	138,000	7,000

The increase in 1908 is due to defective pump for artesian well. Now in order.

STATEMENT OF ACCOUNTS.

Accounts rendered for :—

	£	s.	d.
Sanitary inspections	250	19	0
Maintenance of patients at the Sanitary Hospital	572	11	0
Conveyance of patients to Sanitary Hospital and collecting and returning articles disinfected	41	14	0
Disinfection after non-notifiable disease	15	7	5
Cleansing of W.C.'s, etc., at Public Elementary Schools	72	0	0
Meter checking at Public Elementary Schools	9	0	0
Emptying cesspools	5	0	0
Books, etc., as required by the Midwives Act		3	6
Works, etc., executed by Sanitary Authority and recoverable	31	1	6
Rent of Isolation Cottages	27	13	6
Rat Catcher's services	11	7	3
Hire of P.M. Room and special services rendered at Mortuary	2	3	6
Ambulance hire	2	2	0

REPORT

ON THE WORKING OF THE

Sale of Food and Drugs Acts

During the Year 1909.

SANITARY DEPARTMENT,

BOURNEMOUTH.

TO THE MAYOR AND TOWN COUNCIL,
BOURNEMOUTH.

GENTLEMEN,—

In December, Mr. Fred P. Brazier was appointed Inspector in place of Mr. J. Christie, resigned, and the following returns have been compiled from the entries in the books kept. The per centage of adulterated articles is exceptionally low, being only 5·24 per cent.

Only one prosecution has taken place during the year, viz., for the sale of New Milk deficient in cream, and the Vendor was convicted and fined £1 5s. including costs.

During the year 1909 a total of 438 samples of various foods and drugs were purchased, of which number 277 samples were formally purchased in accordance with the provisions of the Acts ; 86 samples were

purchased informally, and submitted as "test" samples to the Analyst, while the remaining 75 samples were of new milk, taken by the Inspector as it was delivered by farmers to milk vendors in the Borough and then submitted by him to the Gerber test for milk fat, &c.

Of the 363 samples forwarded to the Analyst for analysis, 299, or 82·36 per cent., were reported to be genuine; 45, or 12·4 per cent., to be of poor or doubtful quality; and 19, or 5·24 per cent., to be adulterated or in some way deficient.

Tables shewing the various articles analysed during the year, with the results of analyses, will be found in the Public Analyst's Report, Tables 2 and 3.

NEW MILK.

Ninety-one samples of new milk were taken officially and sent to the Analyst. They were purchased from retail vendors in the Borough, and of these only three were reported to be deficient in cream, viz.—two 18½ per cent. deficient, and one 12 per cent. deficient in cream. A strong letter of warning was sent in two of these cases after enquiries had been made. In one of the cases of 18½ per cent. deficiency, it was thought necessary to accept the explanation of the vendor that the deficiency was due to carelessness on the part of an employee, which was admitted by him, and although there was a doubt in the matter, legal proceedings were not taken. The other case of 18½ per cent. deficiency was taken as the basis of legal proceedings under the Acts, and ultimately this dairyman was convicted and fined £1 5s., including costs.

GERBER TEST SAMPLES OF MILK.

Seventy-five samples of farmer's milk have been submitted to this test by the Inspector. The results have been such, that not only the cases mentioned above were detected, but also in other instances the

quality of the milk forwarded by the farmer to the retailer in the Borough was found to be in some way not according to the minimum standards.

In such cases, action has been taken by the Inspector so that the quality of the milk sent into the Borough might be improved, and, in several instances the retail vendor worked in conjunction with the Inspector, and did all in his power to secure a better quality of milk.

In four cases letters of warning were written as to the supplies being unsatisfactory.

PRESERVATIVES AND COLOURING MATTERS.

The following table shews the number of articles analysed during 1909, which were reported by the Analyst to contain some preservative or colouring matter :—

No. of samples Analysed.	ARTICLE.	Salicylic Acid	Boric Acid.	Sulphurous Acid.	Colour.	REMARKS.
OFFICIAL SAMPLES.						
91	New Milk	...	—	—	81	Mere to large traces of Annatto Colouring. One sample :—Mere trace of Analine Dye.
3	Separated Milk	...	—	—	3	Large traces of Annatto.
7	Cream	...	3	—	—	Boric Acid :—'2, '24, '21 per cent.
39	Butter	...	13	—	—	Boric Acid :—'26, '23, '26, '07, '19 to '20, '49, '33, '32, '36, '32, '42, '49 per cent.
8	Sausages	...	6	—	—	Boric Acid :—'27, '13, '60, '27, '43, '18 per cent.
UNOFFICIAL SAMPLES.						
2	Milk-blended Butter	—	2	—	—	Boric Acid :—'37 and '41 per cent.
11	Rice	...	—	—	9	Talc :—'29 to '675 per cent.
8	Pearl Barley	...	—	—	1	Talc :—'35 per cent.
9	Cider	...	1	—	—	Salicylic Acid :—6 grains per pint.
—		—	—	—	—	
178		1	24	—	94	

LEGAL PROCEEDINGS.

In one instance only were legal proceedings instituted under the Sale of Food and Drugs Acts, during 1909, and the result was as follows :—

Marked No. of Sample.	Article.	Extent of Adulteration.	Result of Proceedings.	Fines.
19	New Milk	18½ per cent deficient in Cream. Traces of Annatto Colouring ...	Conviction (including costs)	£ s. d. 1 5 0
	Number of Prosecutions	...		1
	„ „ Convictions	...		1
	„ „ Letters of warning written			6
	Total amount of fines imposed		£1 5 0 including costs.	

In concluding this Report I have much pleasure in testifying to the loyal and willing help afforded by all the Inspectors and Staff generally, and for the continuous interest they have shewn in the duties devolving upon them to improve and maintain the sanitary condition of the Borough.

Also I beg to express my gratitude to the Chairman and Members of the Sanitary Committee and to the Council for the consideration and help afforded to the Department in all questions brought before your notice during the year.

I have the honour to remain,

Mr. Mayor and Gentlemen,

Your obedient servant,

WM. GEO. COOPER,

Chief Sanitary Inspector.

COUNTY BOROUGH OF BOURNEMOUTH.

ANNUAL REPORT
OF THE
BOROUGH BACTERIOLOGIST

For the Year ending 31st December, 1909.

TO THE MAYOR AND TOWN COUNCIL,
BOURNEMOUTH.

GENTLEMEN—

I herewith beg to submit to you 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 710 bacteriological investigations, which is an increase of 264 as compared with the previous year.

The examinations in question consisted of :—

- 565 swabs *re* Diphtheria, etc.
- 49 milk samples *re* Tuberculosis.
- 55 ditto *re* Pus, Blood, Dirt, etc.
- 18 specimens of Blood.
- 12 samples of Ice Creams *re* Bacterial Impurities
- 11 sundry pathological examinations.

The following table shows how the examinations were distributed throughout the year :—

In January ...	72	examinations were made.	
February ...	60	"	"
March ...	87	"	"
April ...	73	"	"
May ...	37	"	"
June ...	43	"	"
July ...	75	"	"
August ...	36	"	"
September	51	"	"
October ...	48	"	"
November	80	"	"
December	48	"	"
Total	710		

The number of investigations carried out during the past year (1909) considerably exceeds that of any previous year. The increase is due mainly to administrative changes concerning patients at the Sanitary Hospital. Since my last report several new factors have become prominent, especially those associated with the etiology of infectious diseases and mixed infections. And in consequence of this comparatively fresh knowledge, the Medical Officer of Health has considered it essential to have many more bacteriological examinations than formerly.

In previous years my examinations for the Hospital were practically confined to Diphtheria and Typhoid patients ; but now Scarlet Fever patients are also tested, and special attention is devoted to cases complicated by ear and nasal discharges. Hence the reason for substantial increase in bacteriological work is obvious.

In former reports I have given a table showing the actual number of examinations required by each patient.

The following list gives the same information for 1909 :—

SANITARY HOSPITAL.

67 patients required 1 examination.

58	"	"	2	"
34	"	"	3	"
21	"	"	4	"
8	"	"	5	"
9	"	"	6	"
2	"	"	7	"
3	"	"	8	"
1	"	"	9	"
1	"	"	10	"
1	"	"	11	"
1	"	"	15	"
1	"	"	19	"

As regards the 67 patients who appear to have had only one examination each, it should be understood that practically every patient has at least two examinations. But as the above record is strictly confined to the year 1909, it does not fully account for the examinations made for patients admitted in 1908 and discharged in 1909, or those admitted in 1909 and discharged in 1910.

MILK.

During the past twelve months 49 samples of Milk have been submitted to examination for Tuberculosis, and 55 samples for Pus, Blood, Manure, and other undesirable constituents. No Tubercle Bacilli were found in any of the samples, which is of course highly satisfactory.

As regards the other milk examinations, the results are disappointing. The proportion of contaminated samples shows no marked diminution, and milk containing pus or manure, or both, is still frequently met with.

Out of 55 samples, only 21 were up to the desired standard of purity and cleanliness; the rest were more or less tainted in some way.

How to obtain a constant supply of milk free from objectionable constituents is a problem whose solution appears to be as far off as ever.

It is apparent to everyone with practical experience, that the main source of milk contamination is the dairy farm ; and until the dairy farmer is rendered liable to punishment for supplying the retailer with milk polluted with such substances as pus or cow-dung, there will be no permanent improvement.

ICE CREAMS.

The Ice Creams sampled this year show a distinct improvement as compared with other years. This class of food-stuff is of course very liable to putrefactive changes, even when made and stored under favourable conditions : but when necessary precautions are ignored, gross pollution occurs, owing to the rapid multiplication of bacteria.

Judging by results, the measures taken by the Health Department have produced a substantial improvement in the hygienic condition of ice creams in this Borough.

I remain, Gentlemen,

Your obedient servant,

F. J. TANNER,
Borough Bacteriologist.

ANNUAL REPORT

OF THE

PUBLIC ANALYST

For the Year ending 31st December, 1909.

TO THE MAYOR AND TOWN COUNCIL,
BOURNEMOUTH.

GENTLEMEN,—

In presenting my report upon the samples of Food and Drugs analysed by me during the year 1909, I have the great satisfaction of being able to state that the past year has shown the smallest proportion of adulteration which I have yet had to record.

The total number of samples was 363, being a decrease of 37 upon the past three years; of these 277 were officially taken under the provisions of the Food and Drugs Acts and 86 were unofficial samples. Of the official samples 12 proved to be adulterated or deficient in some essential constituent, and 38 were of poor or doubtful quality, whilst of the unofficial samples seven were adulterated or deficient, and seven of poor or doubtful quality, the percentages of the whole being—adulterated 5·24 per cent., poor or doubtful 12·4 per cent. These results are compared with those of former years in the following table :—

TABLE I.

Year	Adulterated.	Poor or Doubtful.
1902.	15.8 per cent.	11.8 per cent.
1903.	12.3 " "	9.0 " "
1904.	16.6 " "	14.3 " "
1905.	14.0 " "	11.6 " "
1906. (official)	9.0 " "	13.3 " "
,, (unofficial)	18.0 " "	10.0 " "
,, (total)	11.25 " "	12.5 " "
1907. (official)	8.0 " "	14.0 " "
,, (unofficial)	12.0 " "	9.0 " "
,, (total)	9.0 " "	12.75 " "
1908. (official)	7.0 " "	12.0 " "
,, (unofficial)	18.0 " "	16.0 " "
,, (total)	9.75 " "	13.0 " "
1909. (official)	4.33 " "	13.72 " "
,, (unofficial)	8.14 " "	8.14 " "
,, (total)	5.24 " "	12.4 " "

Tables II. and III. indicate the results obtained with the official and unofficial samples respectively:—

TABLE II.

Summary of Annual Report, 1909 (*277 Official Samples*).

Article	No. of Spls.	Genuine.	Poor or Doubtful.	Coloured.	Contained Preservative.	Adulterated.	Percentage Adulterated.	Remarks.
New Milk ...	91	61	26	81	0	4	4.4	Nos. 19, 46, 89 and 161 were deficient in Cream $18\frac{1}{2}$, $18\frac{1}{2}$, 12 and 18 per cent.
Separated Milk	3	3	—	3	0	0	0	Preservative in each case below .25 per cent Boric Acid.
Cream ...	7	7	—	—	3	0	0	
Butter ...	39	37	2	—	13	0	0	Preservative in each case below .50 per cent Boric Acid.
Cheese ...	10	10	—	—	—	—	—	No. 273 prepared from partly skimmed Milk.
Condensed Milk	9	8	—	—	—	1	11.1	

TABLE II.—*continued.*

Article.	No. of Samples.	Genuine.	Poor or Doubtful.	Coloured.	Contained Preservative.	Adulterated.	Percentage Adulterated.	Remarks.
Lard ...	5	5	—	—	—	—	0	
Demerara Sugar	7	7	—	—	—	—	0	
Tea ...	16	16	—	—	—	—	0	
Coffee ...	10	10	—	—	—	—	0	
Cocoa ...	6	5	1	—	—	—	0	No. 109 contained very little Arrow-root (probably 1 per cent).
Flour ...	2	2	—	—	—	—	0	
Bread ...	6	6	—	—	—	—	0	
Sausages ...	8	7	—	—	6	1	12.5	No. 262 contained 0.60 per cent Boric Acid.
Vinegar ...	10	10	—	—	—	—	0	
Chocolate ...	15	12	3	—	—	—	0	See special note below.
Cinnamon ...	7	3	2	—	—	2	28.4	No. 203 contained 5 per cent Arrow-root; No. 206, 3 per cent Sand.
Almond Oil ...	7	7	—	—	—	—	0	
Cream of Tartar	11	6	2	—	—	3	27.3	No. 192 excess of Lead; Nos. 194 & 202, excess of both Lead and Copper (see note).
Fluid Magnesia	8	5	2	—	—	1	12.5	No. 51 was 42½ per cent deficient in Magnesia.
Totals ...	277	227	38	84	22	12	4.33	

TABLE III.

Summary of Annual Report, 1909 (Unofficial Samples).

Milk ...	1	1	—	—	—	—	—	An abnormal sample
Butter ...	1	1	—	—	—	—	—	
Milk blended butter ...	2	2	—	—	2	—	—	
Nut Margarine	1	1	—	—	—	—	—	
Lemonade ..	1	1	—	—	—	—	—	
Ginger-beer ...	1	—	—	—	—	1	100.0	No. 41 contained 2.6 per cent Proof Spirit.

TABLE III.—*continued.*

Article.	No. of Samples.	Genuine.	Poor or Doubtful.	Coloured.	Contained Preservative.	Adulterated.	Percentage Adulterated.	Remarks.
Hop Ale ...	1	1	—	—	—	—	—	
Rice ...	11	2	7	9	—	2	18.2	Nos. 44 & 45 contained .55 and .67 per cent of Talc.
Pearl Barley ...	8	7	—	1	—	1	12.5	No. 55 contained .35 per cent of Talc
Cider ...	9	9	—	—	1	—	—	
Pickles ...	8	8	—	—	—	—	—	
Capers ...	3	3	—	—	—	—	—	
Herbs ...	2	2	—	—	—	—	—	
Olive Oil ...	15	15	—	—	—	—	—	
Glycerine ...	5	5	—	—	—	—	—	
Cream Powder	3	1	—	—	—	2	66.6	Nos. 18 & 19 contain 45.6 and 46.6 per cent Calcium Sulphate.
Drugs ...	14	13	—	—	—	1	7.15	No. 76 (Calomel Tablets) deficient 33½ per cent in Calomel.
Totals	86	72	7	10	3	7	8.14	

NOTES ON RESULTS OF ANALYSES. MILK.

With the exception of 1907 no previous year has shown such freedom from adulteration, although the satisfaction to be derived from this fact is somewhat lessened by the increased number of "poor or doubtful" samples, viz., 28.6 per cent.

The occurrence of so many samples having only 3.0 to 3.2 per cent. of milk-fat would seem to suggest that systematic addition of separated milk takes place at some dairy or dairies; this has been known to be done elsewhere, and a careful following up of the origin

of these "poor" samples would probably be successful in tracing the source of this large percentage of "doubtful" samples.

During the year, 81 samples of milk were found to be artificially coloured, one of these with aniline dye, the others with the usual annatto colouring.

It is my custom to test all samples of milk for the commoner preservatives, and during the hotter weather for the less common ones also; it is satisfactory that no single sample has been found to contain artificial preservatives; this fact indicates how needless are such additions.

The average composition of milk, excluding the four adulterated samples, has been: Milk-fat, 3.53 per cent.; non-fatty solids, 8.90 per cent.; water, 87.57 per cent.; these figures are very close to those for 1907 and 1908.

CREAM.

In December seven samples were taken, and all were found genuine; three contained Boron preservative, but the proportion was below the limit of 0.25 per cent. Boric Acid, and in none of the samples could any of the thickening preparations be detected. The proportion of milk-fat varied from 47.96 to 53.04 per cent., the average being 49.75 per cent.

CHEESE.

Nine samples of Cheddar and Stilton cheeses contained from 30.65 to 38.6 per cent. of milk-fat, whilst one of Dutch Edam contained 23.0 per cent. The proportion of Proteids varied from 23.24 to 26.7 per cent.

CONDENSED MILK.

In my report for 1905 I drew attention to the serious need which exists for correct description and clear directions for the use of condensed milk, especially for feeding infants. I have analysed nine samples taken during the past year, four of which contained from 0.5 to 1.2 per cent. of milk-fat, indicating that they had been prepared from separated milk, and one, was made

from partially skimmed milk, containing 2·4 per cent. of fat (hence 20 per cent. deficient in cream), although the last was described as "warranted full cream." When these samples were diluted with water in the proportion required to produce a liquid containing non-fatty milk solids equivalent to the amount natural to milk, the resulting liquids contained from 10 to 12 per cent. of ordinary sugar, hence were extremely sweet. The amount of water required for dilution varied from 2 to $2\frac{1}{2}$ times the *weight* of the condensed milk, or from 2·6 to $3\frac{1}{4}$ parts by *volume*. These figures differ very widely from those specified on the labels, and constitute a serious indictment of the business morality of the manufacturers.

CHOCOLATE.

Among the 15 samples of chocolate which I analysed in June last I have reported three as being of doubtful purity on account of the presence of small proportions of cocoanut oil and starch other than that natural to cocoa. My personal view is that this constitutes an adulteration, because chocolate is usually understood and defined to be a preparation of cocoa with additional cocoa-butter (derived from the cocoa nib, which is in no way allied to the cocoanut), sweetened with sugar and flavoured, and I am of opinion that any deviation from this should be indicated by a special name other than "chocolate."

The amount of cocoanut oil found in Nos. 133 and 141 was at least 10 per cent. of the total fatty matter, and the added starch in Nos. 135 and 141 was about 3 per cent. and 5 per cent. respectively. This admixture appears trivial when dealing with a few penny-worths, but it becomes serious when we remember that the manufacturers deal in tons; if cocoa-butter containing 10 per cent. of foreign fat is allowable, where is the limit to be drawn? That the addition of cocoanut oil to the extent of 50 per cent., or to the exclusion of the natural cocoa-butter, constitutes adulteration would scarcely be denied, and the *principle* applies to these smaller additions which are more difficult of detection.

Knowing, however, the view which is often held on the subject of standards for manufactured goods, I felt I could only describe these samples as of doubtful purity. The natural corollary is that an authoritative definition of chocolate is required.

GROUND CINNAMON.

The results of analysis of seven samples were far from satisfactory, three of the samples containing small proportions of sand, as indicated by the high "insoluble ash." Genuine cinnamon of good quality yields considerably under 1 per cent., whereas these samples yielded 2.68, 2.95, and 4.1 per cent. respectively; the last of these was returned as adulterated. A fourth sample contained about 5 per cent. of arrowroot.

CREAM OF TARTAR.

The 11 samples all contained a satisfactory proportion of real Bitartrate of Potassium, but several samples contained excessive amounts of lead or copper. In a report issued by the Local Government Board in 1907 Dr. A. W. MacFadden approves the "Cream of Tartar standard" already adopted by traders and analysts, in which the limit of impurity is fixed at an amount not exceeding .002 *per cent.* (approximately $\frac{1}{7}$ grain per lb.) of lead. A similar amount has also been proposed as the limit for contamination with copper. Judged by these standards three of the samples examined must be considered as adulterated, and two as of very poor or doubtful quality; the actual results obtained were:—

No.	Lead	Copper	Adulterated.
No. 192	.0033 per cent.	none	
No. 194	.0087 "	.007 "	"
No. 202	.0026 "	.0042 "	"
No. 191	.0027 "	.0024 "	Very doubtful, slightly excessive
No. 197	.0027 "	.0029 "	" " " "
No. 190	mere trace	.0025 "	Passed.
No. 193	mere trace	.0014 "	"
No. 195	merest trace	.001 "	"
No. 196	.0016 per cent.	.0008 "	"
No. 198	Absent	.0007 "	"
No. 200	.0021 per cent.	.0008 "	"

FLUID MAGNESIA.

Three of the eight samples examined were found to be deficient in magnesia to the extent of $42\frac{1}{2}$, 11, and $7\frac{1}{2}$ per cent. respectively. In this preparation the Magnesium Carbonate is retained in solution by means of Carbonic Acid Gas, hence whenever the bottle is opened and Carbonic Acid lost, the preparation is liable to deteriorate in strength. For this reason I reported the two last samples as of "poor" quality only, although the first ($42\frac{1}{2}$ per cent.) was so weak as to demand condemnation; the vendor should have noticed its deterioration by the deposit of Magnesium Carbonate which forms.

RICE.

Of the 11 test samples taken no fewer than 9 were more or less "faced" with Talc, the amount varying from 0.29 to 0.67 per cent. In the Local Government Board report No. 8, Dr. J. M. Hamill says, "An outside limit of not more than 0.5 per cent. of mineral matter would seem amply to meet the requirements of traders who represent this practice as necessary." The practice of "facing" is by no means necessary, but is required for the purpose of making an inferior article appear of better quality; and the fact that a considerable amount of rice is still sold in its "unfaced" condition is evidence that it is not really needful.

In view of the wide prevalence of the practice, however, it is scarcely possible to entirely prevent its continuance; but the extremely lenient limit proposed by Dr. Hamill should, I consider, be rigidly observed as a maximum, and after due warning to traders, any samples containing more than 0.5 per cent. talc should form the basis of prosecution.

PEARL BARLEY.

Of eight test samples examined one was found to be "faced" with Talc to the extent of .35 per cent. Pearl barley being used for feeding very young children and

invalids renders this much more serious than the facing of rice, and as the practice cannot yet be claimed as a "trade custom" there seems no reason why it should not be prevented from becoming one by prompt and vigorous action on the part of authorities generally. It is the lack of such action in the past which has permitted the wholesale 'faking' of food of various kinds, a notable example being the almost universal colouring of milk.

In concluding this report I wish to emphasize the very satisfactory results of the working of the Food and Drugs Acts in the Borough, the percentage of adulterated samples having shown a nearly continuous reduction from $17\frac{1}{2}$ per cent. in 1901 to $5\frac{1}{4}$ per cent. in 1909.

I am, Gentlemen,

Your obedient servant,

R. A. CRIPPS,

Public Analyst

