[Report 1903] / Medical Officer of Health, Portsmouth Borough.

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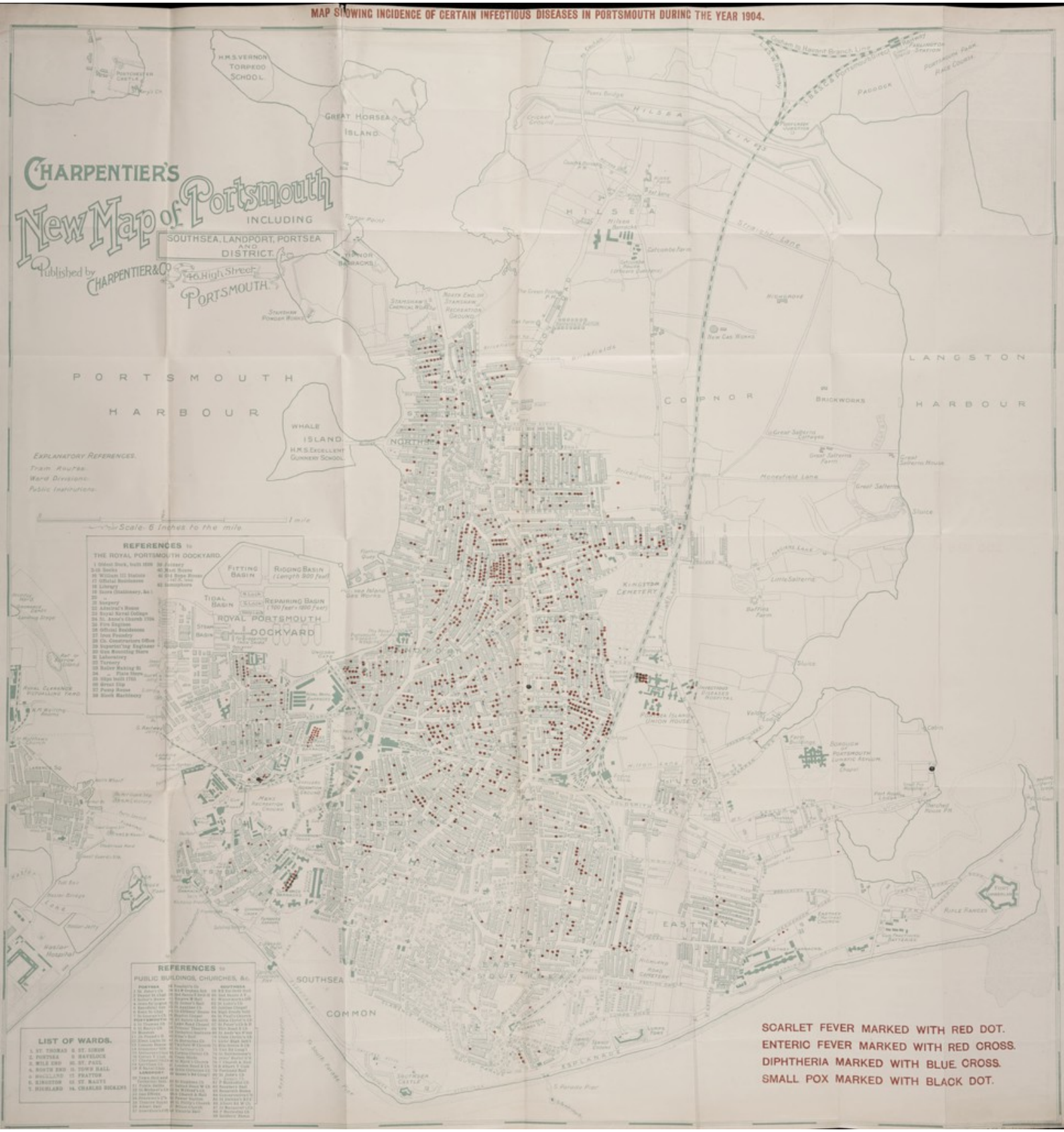
MAP SHOWING INCIDENCE OF CERTAIN INFECTIOUS DISEASES IN PORTSMOUTH DURING THE YEAR 1904.



"SALUS POPULI SUPREMA LEX."

REPORT

ON THE

Health of Portsmouth

FOR THE YEAR 1903,

BY

A. MEARNS FRASER,

M.D. (EDIN. UNIV.) D.P.H. (CAMB. UNIV.)

Medical Officer of Health,

Medical Superintendent to the Small Pox Hospital,

Medical Officer of Health to the Port of Portsmouth

INCLUDING THE

Report of the Public Analyst:

EDWARD RUSSELL, B.SC. LOND., F.I.C.

Health Committee, 1902-3.

———

THE WORSHIPFUL THE MAYOR—

SIR WILLIAM T. DUPREE, J.P., T.C.

Chairman:

ALDERMAN A. LEON EMANUEL, J.P.

Vice-Chairman:

COUNCILLOR R. EMMETT.

———

ALDERMAN SIR WILLIAM PINK, K.L.H., J.P.

ALDERMAN J. H. ALLEN.

COUNCILLORS:

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W. A. MORLEY
C. GILLETT
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C. R. STOBIE
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H. JONES
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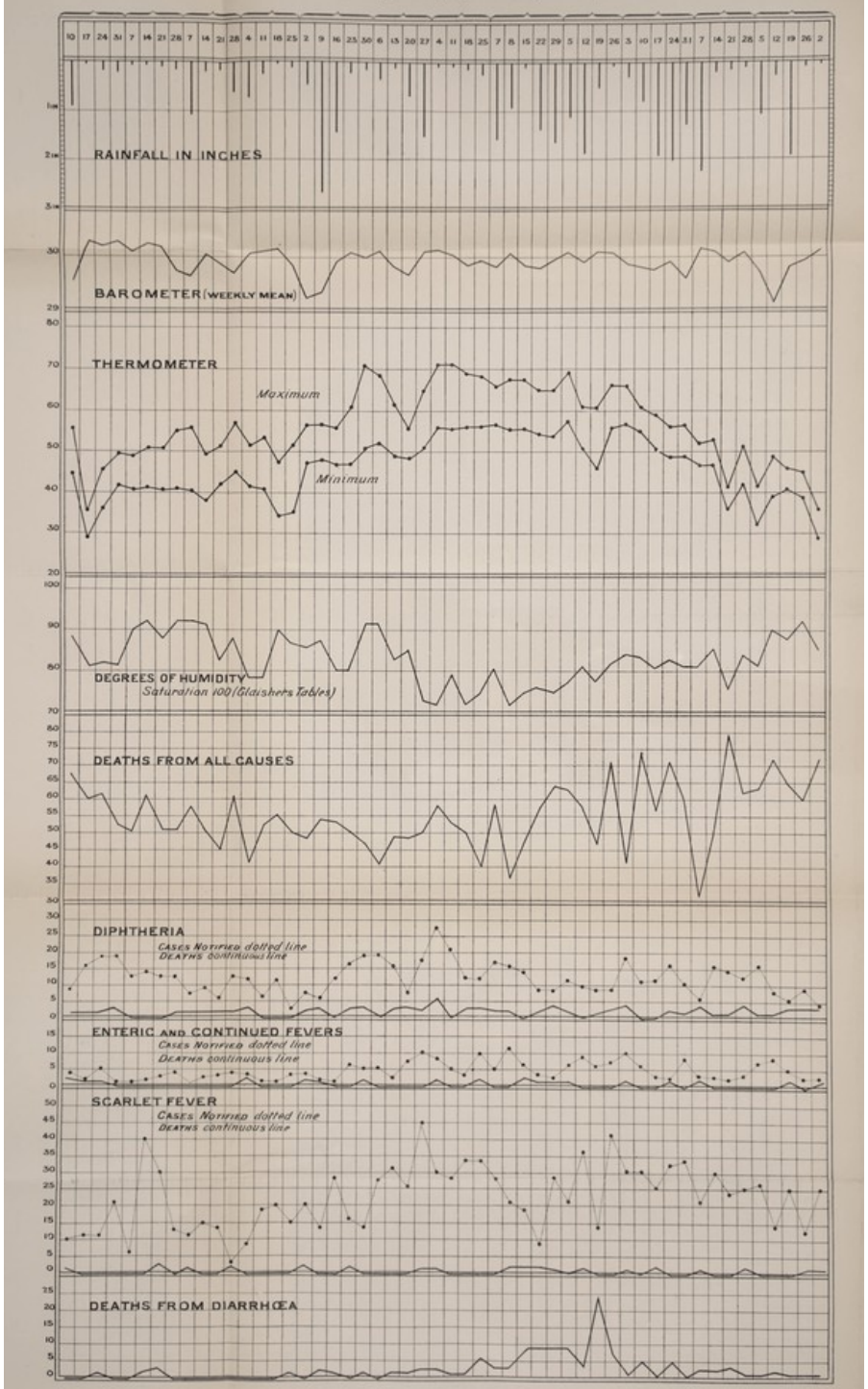
J. MULVANY
J. DUMMER
H. PALIN

METEOROLOGICAL AND DISEASE CHART FOR 1903.



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Medical Officer of Health:

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Inspector C.D.A. Act and Inspector of Nuisances:

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Clerk:

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Inspector of Drains and Inspector of Nuisances:

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Assistant Clerk:

G. BOWDEN.

Disinfector:

A. AYLMER.

Port Sanitary Inspector:

T. MEADES.

Infectious Diseases Hospital.

Medical Superintendent:

J. McGREGOR, L.R.C.P., L.R.C.S.

Matron:

MRS. M. A. ANTRAM.

Medical Officer's Report.

To the Chairman and Members of the Health Committee.

GENTLEMEN,

I have the honour to present for your consideration my Annual Report on the health on the Borough of Portsmouth for the year 1903. This is the eighth Annual Report I have prepared on this Borough, and it is gratifying to find that the death-rate for last year is not only lower than in any of the other eight years, but that it is lower than any previously recorded death-rate for the Borough, namely 14·75 per 1000.

In this Report will be found the usual statistics and tables, together with special reports on a scarlet fever outbreak, on the water supply, and the isolation in Hospital of scarlet fever.

I regret that this has not been in your hands at a much earlier date; my recent illness, however, has made this impossible.

I take this opportunity of expressing my deep sense of appreciation of the very great kindness I received at your hands during the early part of this year, when I was compelled to undergo a surgical operation. The numerous expressions of sympathy that I received, not only from yourselves but from all members of the Council, were a source of very real pleasure to me, and I can imagine nothing more gratifying to a public official than the kind consideration I then experienced.

I have the honour to be,

Gentlemen,

Your obedient servant,

A. MEARNS FRASER, M.D.,

Medical Officer of Health,
Medical Officer to the Port, and Medical Superintendent of the Small-Pox Hospital.

Summary for 1903.

Population	194,960		
Total Births	5,431	Rate per 1000 ...	27·95
,, Deaths	2,867	,, ,, ...	14·75
Deaths under 1 year ...	620	Deaths under 1 year to 1000 Births ...	114
,, 60 years and upwards	907	Death rate per 1000 living	62·4
,, Principal Zymotic Diseases	291	Death rate per 1000 ...	1·49
,, Small Pox ...	0	,, ,, ...	0
,, Measles	17	,, ,, ...	0·09
,, Scarlet Fever ...	27	,, ,, ...	0·14
,, Diphtheria ...	75	,, ,, ...	0·38
,, Whooping Cough ...	34	,, ,, ...	0·17
,, Fever	23	,, ,, ...	0·11
,, Diarrhœa ...	115	,, ,, ...	0·59
,, Violence	104	,, ,, ...	0·53
,, Inquest Cases ...	224	Percentage to total deaths	7·9
,, Public Institutions ...	517	,, ,,	17·9
,, Uncertified Causes ...	29	,, ,,	1·0
Average Death Rate for 10 years, 1893—1902			17·67
Mean Temperature			51·4
Total Rainfall in inches			35·18

Statistics.

Population. — The population estimated to the middle of 1903 was 194,960.

TABLE I.

Table showing the Population, Marriages, Inhabited Houses, Births and Deaths, for the year 1903, and the ten preceding years.

GROSS NUMBERS.

Year	°Estimated Population	No. of Inhabited Houses	Marriages	Registered Births	Total Number of Deaths		
					Total, all ages	Under 1 year	Under 5 years
1903	194,960	39,874	1,882	5,431	2,867	620	889
1902	191,909	38,967	1,772	5,284	3,269	800	1,153
1901	188,855	37,983	1,766	5,267	3,367	858	1,199
1900	185,725	38,007	1,711	4,995	3,359	771	1,123
1899	182,576	35,851	1,719	5,000	3,737	986	1,419
1898	179,500	34,967	1,684	4,971	3,048	681	1,036
1897	176,497	34,193	1,589	4,897	2,974	819	1,129
1896	173,565	34,739	1,581	5,006	3,030	785	1,156
1895	170,672	34,230	1,432	4,868	3,129	856	1,169
1894	167,878	31,377	1,462	4,709	2,593	611	967
1893	165,153	30,984	1,459	4,708	3,058	763	1,171
Average ten years 1893-'02	178,253	35,129	1,617	4,970	3,156	793	1,152

° Revised in accordance with Census Returns, 1901.

NOTES.

1.—Population at Census, 1901 : { Males 91,069 / Females 97,064 }	...	188,113
2.—Area in Acres	...	5,010
3.—Average number of Persons in each house at Census	...	5
4.—Average number of Persons per acre at Census	...	37

Births.—5,431 Births were registered during the year, the number during the previous year being 5,284. The birth rate for the Borough is 27·97, being higher than in any year since 1896. The births occurred in the different quarters of the year as follows :

First Quarter, ending	April 4th	...	1,332 births.
Second ,,	,, July 4th	...	1,388 ,,
Third ,,	,, October 3rd	...	1,332 ,,
Fourth ,,	,, January 4th	...	1,379 ,,

Marriages.—1,882 Marriages took place during the year, being an increase of 110 on the previous year and giving a marriage rate of 19·37.

Deaths.—The Deaths registered numbered only 2,867, giving a death rate of 14·75 per 1000. This death rate is lower than any death rate recorded in Portsmouth, going back to the year 1860. The next lowest death rate occurred in 1894, when it was 15·44. There has during the last 50 years been a steady decline in the death rate, taking the decades from 1850 we find that—

In the ten years		1851–1860	the death rate was	22·8	per 1000
,,	,,	1861–1870	,, ,,	21·2	,,
,,	,,	1871–1880	,, ,,	19·9	,,
,,	,,	1881–1890	,, ,,	18·9	,,
,,	,,	1891–1900	,, ,,	17·5	,,
,,	three yrs.	1901–1903	,, ,,	16·5	,,

One great factor in the low death rate is the small number of deaths from Diarrhæa. These only amounted to 115, or nearly 100 below the average for the last ten years.

Deaths were registered in the four quarters of the year as follows :

First Quarter	711	deaths, equal to rate of		14·64	per 1000
Second ,,	650	,,	,, ,,	13·44	,,
Third ,,	688	,,	,, ,,	14·16	,,
Fourth ,,	815	,,	,, ,,	16·77	,,

The corrected death rate of 15·13 per 1000 places Portsmouth twelfth in the list of the 37 great towns of England and Wales. The lowest death rate is that of Leyton, 11·12, and the highest that of Manchester, 22·03 per 1000.

TABLE II.

° Table showing the Annual Birth-rate, Rate of Mortality, and Death-rates among Children for the year 1903, and ten years preceding.

Year	Birth-rate per 1000 of the Population	Annual Rate of Mortality living from all causes	Annual Rate of Mortality per 1000 living from 7 principal Zymotic Diseases	Deaths of Children under 1 year: Percentage to total Deaths	Percentageof Deaths of Children under 1 year to Registered Births	Deaths of Children under5years: Percentage to Total Deaths
1903	27·95	14·75	1·49	21·6	11·2	31·0
1902	27·53	17·03	2·35	24·4	15·1	35·2
1901	27·88	17·82	2·87	25·4	16·2	35·6
1900	26·89	18·09	2·46	22·9	17·4	33·4
1899	27·33	20·47	3·53	26·4	19·7	37·8
1898	26·58	16·98	2·38	22·3	13·7	34·0
1897	27·74	16·85	2·62	27·5	16·7	37·9
1896	28·84	17·46	2·36	25·9	15·6	38·1
1895	28·52	18·33	2·36	27·3	17·6	37·5
1894	28·05	15·44	2·11	23·5	12·9	37·3
1893	28·51	18·52	3·14	24·9	16·4	38·3
Average of 10 years, 1893-1902	27·79	17·70	2·62	25·0	16·1	36·5

° Revised in accordance with the Census returns of 1901.

TABLE III.

Showing the Population, Birth Rates, Recorded Death Rates, Corrected Death Rates, Zymotic Rates, and Deaths under 1 year to 1000 Births in the 37 Large Towns for the year 1903 (52 weeks).

NAME OF TOWNS	Population middle of 1903	PER 1,000 LIVING			ZYMOTIC DEATH RATE								Deaths of Children under 1 year of age to 1,000 Births
		Birth Rate	Recorded Death Rate	Corrected Death Rate	Small-pox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Fever	Diarrhœa	Total of Cols. 5-11	
Col.	1	2	3	4	5	6	7	8	9	10	11	12	13
LEYTON ...	107,153	30·6	10·80	11·12	...	0·36	0·12	0·25	0·40	0·11	0·40	1·64	103
EAST HAM ...	110,451	34·5	10·96	11·70	...	0·36	0·12	0·13	0·34	0·14	0·53	1·62	111
WALTHAMSTOW	106,290	33·0	11·10	11·75	...	0·50	0·07	0·17	0·32	0·18	0·66	1·90	113
CROYDON ...	141,157	26·3	11·83	12·14	0·01	0·18	0·01	0·12	0·44	0·04	0·28	1·08	108
WILLESDEN ...	127,077	32·0	12·11	12·99	0·01	0·66	0·10	0·08	0·54	0·06	0·51	1·96	117
SOUTHAMPTON	110,120	28·2	13·78	13·71	...	0·01	0·09	0·25	0·25	0·18	0·53	1·31	116
TOTTENHAM ...	109,749	32·3	13·03	14·06	...	0·71	0·04	0·16	0·53	0·08	0·37	1·89	124
BRIGHTON ...	125,405	24·3	14·27	14·07	...	0·05	...	0·26	0·10	0·04	0·40	0·85	114
NORWICH ...	114,351	27·9	15·23	14·57	...	0·01	0·13	0·11	0·07	0·06	0·75	1·13	150
DERBY ...	118,707	27·2	13·59	14·65	0·02	0·04	0·07	0·03	0·27	0·06	0·38	0·87	128
BRISTOL ...	338,895	27·4	14·28	14·67	0·01	0·03	0·15	0·35	0·20	0·06	0·28	1·08	116
PORTSMOUTH	**194,960**	**27·9**	**14·75**	**15·13**	...	**0·09**	**0·14**	**0·39**	**0·17**	**0·12**	**0·59**	**1·50**	**114**
LEICESTER ...	220,272	27·4	14·21	15·18	0·10	0·34	0·07	0·13	0 16	0·06	0·60	1·46	160
CARDIFF ...	172,598	30·5	13·99	15·22	0·02	0·16	0·17	0·20	0·22	0·09	0·46	1·32	122
PLYMOUTH ...	112,022	25·5	16·51	16·09	...	0·04	0·13	0·13	0·24	0·13	0·49	1·16	144
HALIFAX ...	106,754	21·1	15·02	16·30	0·04	0·06	0·07	0·09	0·18	0·12	0·16	0·72	122
WEST HAM ...	281,894	33·7	15·26	16·32	...	0·49	0·07	0·26	0·59	0·13	1·11	2·65	146
LONDON ...	4,613,812	28·4	15·67	16·48	0·00	0·45	0·08	0·16	0·35	0·09	0·64	1·77	131
HULL ...	249,639	31 3	16·92	17·33	0·02	0·42	0·03	0·31	0·09	0·07	1·25	2·19	162
GATESHEAD ...	115,531	35·8	16·73	17·64	0·16	0·03	0·32	0·10	0·31	0·04	0·91	1·87	159
BLACKBURN ...	131,218	25·1	15·73	17·79	0·02	0·41	0·11	0·20	0·56	0·15	1·40	1·49	157
NOTTINGHAM...	245,985	28·3	16·93	17·84	0·01	0·39	0·14	0·26	0·39	0·14	0·68	2·01	165
BIRKENHEAD...	113,598	30·8	16·76	17·89	0·04	0·08	0·18	0·10	0·36	0·13	1·18	2·07	156
LEEDS ...	443,559	29·4	16·56	18·08	0·05	0·28	0·25	0·15	0·27	0·13	0·63	1·76	153
BRADFORD ...	283,410	23·3	16·39	18·12	0·04	0·05	0·10	0·19	0·32	0·15	0·51	1·36	148
SOUTH SHIELDS	105,325	34·5	17·18	18·20	0·01	0·12	0·13	0·15	0·03	0·10	0·55	1·09	131
RHONDDA ...	119,652	41·1	16·56	18·22	...	0·07	0·31	0·34	0·43	0·37	0·94	2·46	158
BIRMINGHAM...	533,039	31·8	17·78	19·13	0·02	0·36	0·27	0·26	0·17	0·13	1·11	2·32	159
BOLTON ...	173,401	27·0	17·46	19·76	0·02	0·27	0·34	0·21	0·05	0·20	0·90	1·99	152
SHEFFIELD ...	425,528	33·2	18·62	20·08	0·01	0·79	0·22	0·09	0·61	0·11	1·27	3·10	182
PRESTON ...	114,404	30·4	18·68	20·45	0·02	0·90	0 13	0·18	0·54	0·29	1·03	3·09	161
SUNDERLAND...	149,572	35·1	19·94	20·56	0·02	0·81	0·23	0·21	0·34	0·16	0·60	2·37	157
NEWCASTLE ...	222,241	31·1	19·22	20·73	0·04	0·05	0·12	0·17	0·23	0·03	0·58	1·22	165
OLDHAM ...	138,786	25.6	18 62	20·96	0·17	0·27	0·22	0·39	0·78	0·09	0·42	2·34	160
SALFORD ...	226,480	32·3	18·97	20·97	0·03	0·58	0·25	0·38	0·42	0·22	0·98	2·86	167
LIVERPOOL ...	716,810	33·4	20 48	21·91	0·19	0 18	0·27	0·23	0·43	0·23	0·98	2·51	159
MANCHESTER...	553,486	32·1	19·72	22·03	0·05	0·63	0·17	0·24	0·39	0·17	0.89	2·54	169

TABLE IV.

Deaths Registered at several groups of Ages from different classes of Diseases **during the Year ending Jan. 4th, 1904.**

CAUSE OF DEATH.	AGES.												DISTRICTS.					Total
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 60	60 to 65	65 to 75	75 to 85	85 and over	Ports-mouth	Port-sea	King-ston	Land-port	South-sea	
Classes																		
I.—ZYMOTIC DISEASES	118	107	53	7	11	12	9	3	8	6	4	1	7	25	169	125	13	339
II.—PARASITIC DISEASES	2	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	2
III.—DIETIC DISEASES	...	...	...	...	2	4	7	3	2	3	...	...	1	2	9	8	1	21
IV.—CONSTITUTIONAL DISEASES ...	35	32	20	64	79	93	80	35	38	54	23	3	12	41	307	159	37	556
V.—DEVELOPMENTAL DISEASES ...	112	2	...	...	...	...	2	...	7	65	144	46	6	16	221	120	15	378
VI.—LOCAL DISEASES	232	111	44	45	78	129	143	92	106	215	139	15	37	103	631	486	92	1349
VII.—DEATHS FROM VIOLENCE	19	8	8	4	17	5	9	8	10	6	7	3	5	14	47	32	6	104
VIII.—DEATHS FROM ILL-DEFINED AND NOT SPECIFIED CAUSES ...	104	5	...	...	...	1	4	...	1	...	3	...	1	10	52	52	3	118
TOTALS ...	622	265	125	120	187	244	254	141	172	349	320	68	70	211	1436	983	167	2867
Class I																		
ZYMOTIC DISEASES—																		
Order 1.—Miasmatic Diseases																		
Measles	3	12	2	...	...	...	...	...	...	...	...	...	...	2	6	8	1	17
Scarlet Fever	4	10	11	1	1	...	...	...	...	...	...	...	...	2	16	9	...	27
Whooping Cough	18	16	...	...	...	...	...	...	...	...	...	...	...	2	16	14	2	34
Diphtheria	3	39	33	...	...	...	...	...	...	...	...	...	1	1	38	28	7	75
Enteric or Typhoid Fever	...	3	4	6	4	3	1	...	1	1	...	...	1	2	13	5	2	23
Other Miasmatic Diseases (Influenza) ...	2	1	1	...	1	1	3	1	3	3	3	1	...	2	14	3	1	20
Order 2.—Diarrhœal Diseases																		
Diarrhœa, Dysentery	78	23	1	...	...	4	3	2	3	...	1	...	5	13	53	44	...	115
Order 4.—Zoogenous Diseases																		
Cowpox and Effects of Vaccination ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Order 5.—Venereal Diseases																		
Syphilis	5	...	...	...	2	...	...	...	...	...	...	...	...	...	4	3	...	7
Gonorrhœa, Stricture of Uretha ...	...	...	...	...	1	...	1	...	1	1	...	...	...	...	3	1	...	4
Order 6.—Septic Diseases																		
Erysipelas	3	3	...	...	...	1	...	...	...	...	...	...	...	1	1	5	...	7

Class I.—*Continued*																			
Pyæmia, Septicæmia	1	...	1	...	...	2	1	...	...	1	...	...	...	...	5	1	...	6
Puerperal Fever	...	...	...	...	...	2	1	...	...	...	...	...	...	...	...	3	...	3
Class II.																			
PARASITIC DISEASES—																			
Thrush and other Vegetable Parasitic Diseases	2	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	2
Class III.																			
DIETIC DISEASES—																			
Chronic Alcoholism	...	...	...	...	...	2	1	7	3	2	3	...	...	1	1	9	6	1	18
Delirium Tremens	...	...	...	...	...	...	3	...	...	...	...	...	...	...	1	...	2	...	3
Class IV.																			
CONSTITUTIONAL DISEASES—																			
Rheumatic Fever, Rheumatism of the Heart	...	...	...	1	1	1	...	...	1	...	...	...	...	...	2	1	...	1	4
Rheumatism	...	...	...	1	3	1	2	2	1	2	...	1	...	...	...	10	3	...	13
Gout	...	...	...	...	...	...	1	3	1	...	1	...	...	...	1	3	1	1	6
Rickets	...	...	3	1	...	...	...	1	...	...	...	...	...	...	...	4	...	1	5
Cancer, Malignant Disease	...	...	...	...	...	4	16	32	17	28	44	19	3	2	5	76	58	22	163
Tabes Mesenterica	...	...	9	5	2	...	...	...	...	...	...	...	...	2	1	7	5	1	16
Tubercular Meningitis, Hydrocephalus	8	15	4	5	1	1	1	...	...	...	...	...	...	...	7	22	5	1	35
Phthisis	...	...	7	4	9	51	70	68	34	14	3	7	2	...	8	23	156	74	8	269
Other Forms of Tuberculosis, Scrofula	6	4	2	2	...	1	1	...	2	...	...	...	...	...	1	11	6	...	18
Purpura, Hæmorrhagic Diathesis	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	2	...	2
Anæmia, Chlorosis Leucocythæmia	...	...	2	1	...	1	1	1	...	1	...	...	...	...	1	6	...	...	7
Glycosuria, Diabetes mellitus	...	...	...	...	2	1	2	5	1	2	2	...	...	...	...	9	4	2	15
Other Constitutional Diseases	...	2	...	...	...	...	...	...	...	...	...	1	...	...	...	2	1	...	3
Class V.																			
DEVELOPMENTAL DISEASES—																			
Premature Birth	...	...	104	...	...	...	...	...	...	...	...	...	...	3	9	59	30	3	104
Atelectasis	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Congenital Malformations	...	...	7	2	...	...	...	...	...	...	...	...	...	...	...	5	4	...	9
Old Age	...	...	...	...	...	...	...	...	2	...	7	65	144	46	3	7	157	85	12	264

TABLE IV.—Continued.

CAUSE OF DEATH.	AGES.												DISTRICTS.					Total
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 60	60 to 65	65 to 70	75 to 85	85 and over	Ports-mouth	Port-sea	King-ston	Land-port	South-sea	
Class VI.																		
LOCAL DISEASES—																		
Order 1.—Diseases of Nervous System																		
Inflammation of Brain or its Membranes	13	16	7	3	3	2	1	...	2	1	4	1	1	9	23	19	1	53
Apoplexy, Softening of Brain, Hemiplegia, Brain Paralysis ...	...	...	1	2	7	14	17	21	23	48	23	1	6	12	79	53	7	157
Insanity, General Paralysis of the Insane	...	...	1	...	5	5	3	1	...	1	1	...	...	1	15	1	...	17
Epilepsy	...	1	...	1	5	3	5	1	1	4	1	...	...	...	13	7	2	22
Convulsions	37	10	...	...	...	...	...	...	...	...	...	...	2	5	18	18	4	47
Laryngismus Stridulus (Spasm of Glottis)	4	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	...	4
Diseases of Spinal Cord, Paraplegia, Paralysis agitans	...	1	2	3	2	3	7	1	3	6	1	...	1	1	15	7	5	29
Other Diseases of Nervous System ...	2	...	1	...	...	1	1	...	...	1	2	...	...	...	5	1	2	8
Order 2.—Diseases of Organs of Special Sense (e.g., of Ear, Eye, Nose) ...	1	...	1	1	...	1	...	...	...	...	...	...	...	...	4	...	...	4
Order 3.—Diseases of Circulatory System																		
Pericarditis	1	...	2	...	...	...	...	...	...	...	...	...	...	1	1	1	...	3
Acute Endocarditis	...	...	...	1	2	...	...	...	...	...	...	...	...	...	1	2	...	3
Valvular Disease of Heart	...	..	4	4	8	6	11	3	6	11	7	...	4	5	21	25	5	60
Other Diseases of Heart	9	1	6	8	17	33	27	17	27	45	33	1	4	14	108	75	23	224
Aneurism	...	...	...	...	3	4	3	1	...	2	...	...	...	1	10	2	...	13
Embolism, Thrombosis	1	...	...	...	2	...	2	...	...	...	...	...	...	...	3	1	1	5
Other Diseases of Blood Vessels ...	1	...	...	...	1	1	...	...	...	1	1	...	...	...	3	2	...	5
Order 4.—Diseases of Respiratory System																		
Laryngitis	...	5	1	...	...	...	...	...	...	...	1	...	1	...	3	3	...	7
Croup	...	5	...	...	...	...	...	...	...	...	...	...	...	...	2	3	...	5
Emphysema, Asthma	...	...	...	1	...	1	...	1	2	...	1	...	...	1	3	1	1	6
Bronchitis	57	20	2	1	...	6	11	11	18	41	41	8	7	18	92	91	8	216
Pneumonia	36	26	8	8	7	14	7	5	...	5	4	1	4	11	58	43	5	121
Pleurisy	...	1	...	1	2	...	...	...	...	...	...	...	...	...	1	2	1	4
Other Diseases Respiratory System ...	6	7	...	1	...	1	3	1	1	9	3	1	1	4	11	15	2	33

Class VI.—*Continued*																		
Order 5.—Diseases of Digestive System																		
Dentition	11	11	...	...	...	...	...	...	...	...	...	...	...	1	10	11	...	22
Diseases of Stomach	23	3	1	1	...	...	1	2	...	2	...	...	...	5	14	13	1	33
Enteritis	9	1	2	...	1	...	1	1	...	1	...	...	...	1	9	6	...	16
Obstructive Disease of Intestines ...	3	...	2	1	1	1	3	3	5	7	2	...	...	1	16	7	4	28
Peritonitis	2	1	1	1	1	1	1	2	2	1	...	...	...	1	6	4	2	13
Ascitis	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
Cirrhosis of Liver	...	...	...	1	1	9	15	7	4	5	3	...	1	1	21	20	2	45
Jaundice and other Diseases of the Liver	1	1	...	...	1	1	2	...	3	4	...	...	...	...	7	3	3	13
Other Diseases of Digestive System ...	6	...	...	...	...	...	...	...	...	1	1	...	...	...	3	5	...	8
Order 8.—Diseases of Urinary System																		
Nephritis	3	1	...	...	1	6	11	10	4	6	5	...	2	7	20	14	4	47
Bright's Disease	...	...	...	1	3	10	9	3	4	7	1	...	1	1	16	15	5	38
Diseases of Bladder or of Prostate ...	...	...	...	...	1	1	1	...	...	4	3	2	...	1	5	2	4	12
Other Diseases of Urinary System ...	...	...	1	...	...	2	...	...	...	1	...	...	...	...	1	3	...	4
Order 9.—Diseases of Reproductive System																		
(*a*) *Of Organs of Generation*																		
(*b*) *Of Parturition*																		
Abortion, Miscarriage ...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	1
Purperal Convulsions	...	...	...	1	2	...	...	...	...	...	...	...	...	...	1	2	...	3
Placenta prævia, Flooding ...	...	...	...	2	...	1	...	...	...	...	...	...	...	1	1	1	...	3
Other Accidents of Child-birth ...	...	...	...	1	2	1	...	...	...	...	...	...	...	...	4	...	...	4
Order 10—Diseases of Bones and Joints																		
Caries, Necrosis	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Arthritis	1	...	...	...	...	...	...	1	1	...	1	...	...	...	1	3	...	4
Order 11—Diseases of Integumentary System																		
Other Diseases of Integumentary System	4	...	...	1	...	...	1	...	...	1	...	...	1	...	4	2	...	7

TABLE IV.—Continued.

CAUSE OF DEATH	AGES												DISTRICTS					Total
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 60	60 to 65	65 to 75	75 to 85	85 and over	Portsmouth	Portsea	Kingston	Landport	Southsea	
Class VII.																		
DEATHS FROM VIOLENCE—																		
Order 1—Accidents or Negligence																		
Fractures, Contusions	...	1	2	...	2	1	...	1	...	1	2	...	...	1	6	3	...	10
Burns, Scalds	...	4	...	...	2	...	2	...	...	...	...	...	...	...	8	...	...	8
Poison	...	1	2	...	1	...	...	...	...	...	...	...	...	1	2	1	...	4
Drowning	...	...	1	1	4	...	1	...	...	...	...	...	2	...	1	1	3	7
Suffocation	16	...	...	1	1	...	...	...	...	...	...	...	...	4	6	8	...	18
Otherwise	3	2	3	1	3	...	4	4	4	4	5	3	2	4	18	10	2	36
Order 2—Suicide																		
Gunshot Wounds	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	1
Cut, Stab	...	...	...	...	1	1	...	1	...	1	...	...	...	1	1	2	...	4
Poison	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	2	...	2
Drowning	...	...	...	...	1	...	1	...	2	...	...	...	1	...	1	2	...	4
Hanging	...	...	...	1	2	1	...	2	3	...	...	...	...	3	3	3	...	9
Otherwise	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	1
Class VIII.																		
DEATHS FROM ILL-DEFINED AND NOT SPECIFIED CAUSES—																		
Debility, Atrophy, Inanition ...	103	4	...	...	...	...	...	...	1	...	2	...	1	10	50	47	2	110
Mortification	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	1
Tumour	...	...	...	...	...	...	2	...	...	...	...	...	...	...	1	1	...	2
Abscess	1	1	...	...	...	1	1	...	...	...	...	...	...	...	...	3	1	4
Hæmmorrhage	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	1

SUMMARY OF TABLE IV.

Class	DISEASES	Number of Deaths
I.	ZYMOTIC DISEASES—	
	1. Miasmatic Diseases	196
	2. Diarrhœal Diseases	115
	3. Malarial Diseases	...
	4. Zoogenous Diseases	1
	5. Venereal Diseases	11
	6. Septic Diseases	16
II.	PARASITIC DISEASES	2
III.	DIETIC DISEASES	21
IV.	CONSTITUTIONAL DISEASES	556
V.	DEVELOPMENTAL DISEASES	378
VI.	LOCAL DISEASES—	
	1. Diseases of the Nervous System	337
	2. „ „ Organs of Special Sense	4
	3. „ „ Circulatory System	313
	4. „ „ Respiratory System	392
	5. „ „ Digestive System	179
	6. „ „ Lymphatic System	...
	7. „ „ Gland-like Organs of Uncertain Use	...
	8. „ „ Urinary System	101
	9. „ „ Reproductive System—	
	(*a*) Organs of Generation ...	...
	(*b*) Parturition	11
	10. „ „ Bones and Joints	5
	11. „ „ Integumentary System	7
VII.	VIOLENCE—	
	1. Accidents or Negligence	83
	2. Homicide	...
	3. Suicide	21
VIII.	ILL-DEFINED OR NOT SPECIFIED CAUSES	118

TABLE V.

Deaths Registered at several groups of ages from different classes of Diseases **during Quarter ending April 4th, 1903.**

CAUSE OF DEATH	AGES												DISTRICTS					Totals
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 60	60 to 65	65 to 75	75 to 85	85 and over	Ports-mouth	Portsea	Kings-ton	Land-port	Southsea	
Class																		
I.—ZYMOTIC DISEASES—																		
Order 1—Miasmatic Diseases																		
Measles	3	6	...	...	...	...	...	...	...	...	...	...	...	...	4	4	1	9
Scarlet Fever	3	...	...	1	...	...	...	...	...	...	...	...	...	2	2	...	...	4
Whooping Cough	3	2	...	...	...	...	...	...	...	...	...	...	...	...	3	2	...	5
Diphtheria	...	6	6	...	...	...	...	...	...	...	...	...	...	...	9	3	...	12
Enteric or Typhoid Fever ...	...	...	2	1	1	...	1	...	1	...	...	...	1	...	3	1	1	6
Other Miasmatic Diseases (Influenza) ...	1	...	1	...	1	...	1	1	1	2	...	...	...	1	5	2	...	8
Order 2—Diarrhœal Diseases																		
Diarrhœa, Dysentry	4	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	...	4
Order 5—Venereal Diseases																		
Syphilis	2	...	...	...	...	...	...	...	...	...	...	..	...	...	...	2	...	2
Gonorrhœa, Stricture of Uretha ...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	1
Order 6—Septic Diseases																		
Pyæmia, Septicæmia	...	...	1	...	...	1	...	...	1	...	...	...	...	...	2	1	...	3
Puerperal Fever	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	2	...	2
II.—PARASITIC DISEASES	...	...	...	...	...	1	3	1	1	2	...	...	1	1	3	3	...	8
III.—DIETIC DISEASES	...	...	...	...	...	1	3	1	1	2	...	...	1	1	3	3	...	8
IV.—CONSTITUTIONAL DISEASES ...	8	10	5	18	24	23	20	12	10	12	6	...	3	12	83	37	13	148
V.—DEVELOPMENTAL DISEASES ...	29	...	...	...	...	...	...	...	1	19	44	13	2	5	63	29	7	106
VI.—LOCAL DISEASES	53	34	9	13	12	33	35	21	30	46	41	6	10	22	159	111	31	333
VII.—DEATHS FROM VIOLENCE ...	4	4	1	1	3	1	4	2	3	...	1	...	...	3	13	7	1	24
VIII.—NOT SPECIFIED OR ILL-DEFINED	31	4	...	...	...	...	1	...	...	...	...	...	...	2	15	19	...	36
TOTALS ...	141	66	25	34	43	60	65	37	47	82	92	19	17	48	366	226	54	711

TABLE VI.

Deaths Registered at several groups of ages from different classes of Diseases **during Quarter ending July 4th, 1903.**

CAUSE OF DEATH	AGES												DISTRICTS					Totals
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 60	60 to 65	65 to 75	75 to 85	85 and over	Ports-mouth	Portsea	Kings-ton	Land-port	Southsea	
Class																		
I.—ZYMOTIC DISEASES—																		
Order 1—Miasmatic Diseases																		
Measles	...	4	...	...	...	...	...	...	...	...	...	...	...	1	1	2	...	4
Scarlet Fever	...	3	4	...	...	...	...	...	...	...	...	...	...	...	6	1	...	7
Whooping Cough	5	8	...	...	...	...	...	...	...	...	...	...	...	2	3	7	1	13
Diphtheria	...	13	6	...	...	...	...	...	...	...	...	...	...	...	8	7	4	19
Enteric or Typhoid Fever ...	...	...	2	1	...	1	...	...	...	1	...	...	...	1	4	...	...	5
Other Miasmatic Diseases (Influenza) ...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	1	...	1	2
Order 2—Diarrhœal Diseases																		
Diarrhœa, Dysentery	4	1	...	...	...	1	...	...	2	...	1	...	1	1	4	3	...	9
Order 5—Venereal Diseases																		
Syphilis	...	...	...	...	1	...	...	...	...	...	...	..	...	...	1	...	...	1
Gonorrhœa	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Order 6—Septic Diseases																		
Erysipelas	1	1	...	...	...	1	...	...	...	...	...	...	...	...	1	2	...	3
Pyæmia, Septicæmia ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
II.—PARASITIC DISEASES	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
III.—DIETETIC DISEASES	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
IV.—CONSTITUTIONAL DISEASES ...	5	5	6	18	22	28	23	8	9	15	4	...	3	13	77	47	3	143
V.—DEVELOPMENTAL DISEASES ...	24	...	...	...	...	...	1	...	2	16	30	8	1	3	47	27	3	81
VI.—LOCAL DISEASES	52	28	12	9	20	28	42	22	23	54	23	1	9	31	143	113	18	314
VII.—DEATHS FROM VIOLENCE ...	9	...	4	2	4	...	2	1	3	1	2	...	2	3	11	11	1	28
VIII.—NOT SPECIFIED OR ILL-DEFINED	21	...	...	...	...	1	...	...	...	...	...	...	1	1	8	11	1	22
TOTALS ...	123	63	34	30	47	60	69	31	39	88	60	9	17	56	316	232	32	653

TABLE VII.

Deaths Registered at several groups of ages from different classes of Diseases **during Quarter ending Oct. 3rd, 1903.**

CAUSE OF DEATH	AGES												DISTRICTS					Total
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 60	60 to 65	65 to 75	75 to 85	85 and over	Portsmouth	Portsea	Kingston	Landport	Southsea	
Class																		
I.—ZYMOTIC DISEASES—																		
Order 1—Miasmatic Diseases																		
Measles	...	2	2	...	...	...	...	...	...	...	...	...	...	1	...	3	...	4
Scarlet Fever	...	4	5	...	...	...	...	...	...	...	...	...	...	...	6	3	...	9
Whooping Cough	4	2	...	...	...	...	...	...	...	...	...	...	...	...	5	...	1	6
Diphtheria	2	11	10	...	...	...	...	...	...	...	...	...	...	1	12	7	3	23
Enteric or Typhoid Fever ...	...	2	...	2	3	1	...	...	...	...	...	...	...	...	6	1	1	8
Other Miasmatic Diseases (Influenza)	...	1	...	...	...	1	...	...	...	...	1	...	...	1	2	...	...	3
Order 2—Diarrhœal Diseases																		
Diarrhœa, Dysentery	53	19	1	...	...	2	1	...	...	...	...	...	3	11	32	30	...	76
Order 5—Venereal Diseases																		
Syphilis	2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	2
Gonorrhœa, Stricture of Urethra ...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	1
Order 6—Septic Diseases								...										
Erysipelas	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Puerperal Fever	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	1
II.—PARASITIC DISEASES	1	...	...	...	...	...	...	...	...	...	...	. .	1	...	...	...	...	1
III.—DIETETIC DISEASES	...	...	...	...	1	1	3	1	1	...	...	...	...	...	4	3	...	7
IV.—CONSTITUTIONAL DISEASES ...	13	7	1	17	19	17	15	7	4	7	7	1	1	6	66	35	7	115
V.—DEVELOPMENTAL DISEASES ...	27	...	...	...	...	...	...	...	2	11	33	8	1	2	45	29	4	81
VI.—LOCAL DISEASES	54	23	14	12	22	31	30	17	23	45	25	2	2	25	144	110	17	296
VII.—DEATHS FROM VIOLENCE	2	3	1	1	8	2	4	2	4	1	2	...	3	4	11	10	2	30
VIII.—DEATHS FROM ILL-DEFINED AND NOT SPECIFIED CAUSES ...	19	...	...	...	...	...	...	...	1	...	2	...	...	1	12	8	1	22
TOTALS ...	178	74	34	32	54	55	54	27	35	64	70	11	11	52	347	242	36	688

TABLE VIII.

Deaths Registered at several groups of Ages from different Classes of Diseases **during Quarter ending Jan. 4th, 1904.**

CAUSE OF DEATH.	AGES.												DISTRICTS.					Totals
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 60	60 to 65	65 to 75	75 to 85	85 and over	Ports-mouth	Port-sea	King-ston	Land-port	South-sea	
Class																		
1.—ZYMOTIC DISEASES—																		
Order 1—Miasmatic Diseases																		
Measles	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	1	3	2	...	1	...	...	...	...	...	...	...	...	...	2	5	...	7
Whooping Cough	6	4	...	...	...	...	...	...	...	...	...	...	...	...	6	4	...	10
Diphtheria	1	9	11	...	...	...	...	...	...	...	...	...	1	...	9	11	...	21
Enteric or Typhoid Fever ...	...	1	...	2	...	1	...	...	...	...	...	...	...	1	...	3	...	4
Other Miasmatic Diseases (Influenza)	1	...	...	...	...	...	1	...	2	...	2	1	...	...	6	1	...	7
Order 2—Diarrhœal Diseases																		
Diarrhœa, Dysentery	17	3	...	...	...	1	2	2	1	...	...	...	1	1	16	8	...	26
Order 4—Zoogenous Diseases																		
Cowpox and Effects of Vaccination ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Order 5—Venereal Diseases																		
Syphilis	1	...	...	...	1	...	...	...	...	...	...	...	...	...	2	...	...	2
Gonorrhœa, Stricture of Urethra ...	...	..	...	...	...	...	...	...	1	1	...	...	...	...	1	1	...	2
Order 6—Septic Diseases																		
Erysipelas	1	2	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...	3
Pyæmia, Septicæmia	...	...	...	...	...	1	1	...	...	...	...	...	...	...	2	...	...	2
II.—PARASITIC DISEASES	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
III.—DIETETIC DISEASES	...	...	...	...	1	2	1	1	...	1	...	...	...	1	2	2	1	6
IV.—CONSTITUTIONAL DISEASES ...	9	10	8	11	14	25	22	8	15	20	6	2	5	10	81	40	14	150
V.—DEVELOPMENTAL DISEASES ...	32	2	...	...	...	...	1	...	2	19	37	17	2	6	66	35	1	110
VI.—LOCAL DISEASES	72	28	9	11	24	37	37	32	30	70	50	6	16	25	185	154	26	406
VII.—DEATHS FROM VIOLENCE ...	5	1	...	1	2	...	...	2	1	4	1	3	...	3	11	4	2	20
VIII.—NOT SPECIFIED OR ILL-DEFINED ...	33	1	...	...	...	...	3	...	...	...	1	...	...	6	17	14	1	38
TOTALS ...	180	64	30	25	43	67	68	45	52	115	97	29	25	54	406	285	45	815

TABLE IX.

Table showing the Numbers and Death Rates per 1000 of Population from the Seven Principal Zymotic Diseases, from Lung Diseases (excluding Phthisis), from Phthisis, and from all causes, during each Quarter, and for the whole Year 1903.

Quarter ending	The Seven Principal Zymotic Diseases*		Lung Diseases (excluding Phthisis)†		Phthisis		From all Causes	
	No.	Rate per 1000	No.	Rate per 1000	No.	Rate per 1000	No.	Rate per 1000
April 4th, 1903 ...	40	0·82	101	2·20	73	1·35	711	14·64
July 4th, 1903 ...	57	1·17	81	1·67	72	1·48	653	13·44
October 3rd, 1903...	126	2·59	57	1·17	54	1·11	688	14·16
January 4th, 1904	68	1·40	135	2·78	70	1·44	815	16·77
THE YEAR 1903...	291	1·49	380	1·95	269	1·38	2867	14·75

* Includes Small-Pox, Measles, Scarlet Fever, Whooping Cough, Diphtheria, Enteric or Typhoid Fever, and Diarrhœa.

† Includes Emphysema, Asthma, Bronchitis, Pneumonia, Pluerisy, and other Diseases of the Respiratory System.

TABLE X.

DIVISION I.

Showing the number of Deaths from all ages from certain groups of Diseases, and proportions of Deaths per 1,000 of Population and to 1,000 Births.

DISEASES.	Total Deaths	Deaths per 1000 of Population at all ages	Proportion of Deaths to 1000 Births
(1) Principal Zymotic Diseases ...	291	1·49	53
(2) Pulmonary Diseases (excluding Consumption)	392	2·02	72
(3) Principal Tubercular Diseases ...	339	1·74	62

DIVISION II.

Deaths of Infants under one year of age from Wasting and Convulsive Diseases; also proportion of Deaths under one year per 1,000 Births, and per 1,000 Deaths from all causes under one year.

Infants under one year	Total Deaths	Deaths per 1000 Births	Deaths under one year per 1000 of Total Deaths
(4) Wasting Diseases	207	38	334
(5) Convulsive Diseases	61	11	98

NOTES.

(1) Includes Small-pox, Measles, Scarlet Fever, Diphtheria, Whooping Cough, Typhoid or Enteric Fever, Continued Fever and Diarrhœa.

(3) Includes Phthisis (or Consumption), Scrofula, Tuberculosis, Tabes mesenterica, Tubercular Meningitis, and Hydrocephalus.

(4) Includes Marasmus, Atrophy, Want of Breast Milk, and Premature Birth.

(5) Includes Infantile Meningitis, Convulsions, and Teething.

TABLE XI.

Showing the Number of Deaths in the Years 1861 to 1903 from the Seven Principal Zymotic Diseases.

YEAR ..	1861	1862	1863	1864	1865	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903
POPULATION..	95220	96960	98731	100531	102363	104230	106130	108064	110034	112040	114083	116162	118280	120436	122632	124867	127144	129461	131821	134235	128332	128672	134441	137412	140448	143552	146724	149966	153279	156667	159093	162432	165153	167878	170672	173565	176497	179500	182576	185725	188885	191909	194960
DISEASES																																											
Small-Pox	1	..	12	228	3	1	..	..	1	1	39	514	45	2	..	1	..	..	..	..	..	..	1	..	..	1	3	..	2	..	..	..	..	4	..	..	..	..	..	..	..	..	..	..
Measles	3	42	80	6	14	16	82	46	57	39	42	52	16	56	54	109	12	36	10	42	7	156	10	164	7	197	8	50	8	4	223	38	120	139	39	126	35	73	50	3	82	70	17
Scarlet Fever.....	5	226	134	17	20	34	15	107	295	119	30	5	12	36	47	457	36	16	11	9	25	40	16	9	5	18	26	12	11	19	9	18	32	14	7	19	11	31	22	11	15	14	27
Diphtheria.....	9	20	24	17	7	26	4	18	18	13	10	21	15	19	18	11	5	1	4	20	205	106	20	41	42	65	47	17	33	47	23	26	29	34	18	20	22	54	120	104	70	62	75
Whooping Cough ..	11	36	16	48	50	46	23	57	26	46	66	17	19	104	8	42	59	92	9	43	66	36	54	9	44	102	41	26	92	39	38	87	36	41	64	60	65	42	62	87	21	92	34
Fever	111	128	57	72	74	85	74	119	105	91	72	112	97	101	103	71	87	96	62	70	60	107	93	58	93	124	53	27	32	50	33	42	54	29	37	28	44	44	75	93	43	54	23
Diarrhœa	152	71	68	118	122	117	140	177	100	121	107	113	106	149	141	131	153	170	73	192	73	111	80	116	123	191	151	98	122	105	73	99	247	93	238	157	286	183	316	159	311	159	115
Totals ..	292	523	391	498	317	330	338	526	602	430	366	834	310	470	371	822	322	411	169	381	436	556	274	397	314	698	329	230	300	265	399	310	518	534	403	410	463	427	645	457	542	451	291

Small-Pox.—Two cases of Small-pox were reported during the year. The first case was a man, W.S., who had tramped from the North of England and had evidently contracted the disease *en route*. At the time he was taken ill, April 12th, he was living in Taylor's Court, Portsea. He was at once removed to the Locks Small-pox Hospital, together with his wife and three children; the latter were vaccinated, and after being kept for twelve days under observation, discharged.

The second case was that of R.L., a boy aged 4½. He was notified suffering from Small-pox at a house in Fratton Road on December 12th. He had been brought from Benwell, Gateshead, on December 3rd, by his father and mother. This patient was also promptly removed to the Hospital, the remainder of the family, and all with whom the family had been in contact, vaccinated.

Fortunately, in neither of the above cases was there any spread of the disease in the Borough, with the exception of the female caretaker, Mrs. S., at the Hospital, who subsequently contracted the disease. Mrs. S. was not vaccinated on going to the Small-pox Hospital as she stated that she had been done about six years previously.

Amongst other steps taken to prevent Small-pox, representations were made in June to the General Officer in command of the Southern District that it was inadvisable to bring the Lancashire Garrison Artillery to this Borough from Altcar for their yearly training, as there had been cases of Small-pox in the camp at Altcar. These representations were fortunately supported by the General Officer, and the movement of the troops to Portsmouth was stopped. As this Militia was recruited from a district in which there were a number of Small-pox cases at the time, there can be no doubt that had the men been brought to Southsea considerable risk of importing cases of Small-pox would have been run, and if such cases had occurred at that time, the beginning of June, the effect on the Southsea season, apart from all other considerations, might have been very disastrous.

TABLE XII.

VACCINATION RETURNS—1st January to 30th June, 1903.

Registration Sub-Districts comprised in the Vaccination Officer's District	Number of Births returned in the Birth List Sheets as registered from 1st Jan. to 30th June, 1903	Number of these Births duly entered by 31st Jan., 1903, in Columns 1, 2, 4 and 5, of the Vaccination Register Birth List Sheets, viz.:					Number of these Births which on 31st Jan., 1903, remained unentered in the Vaccination Register on account (as shown by Report Book) of			Number of these Births remaining on 31st January, 1903, neither duly entered in the Vaccination Register (columns 3, 4, 5, 6 and 7 of this Return) nor temporarily accounted for ih the Report Book (columns 8, 9 and 10 of this Return)
		Col. 1	Col. 2		Col. 4 Number in respect of whom Certificates of Conscientious Objection have been received	Col. 5				
		Successfully Vaccinated	Insusceptible of Vaccination	Had Small-pox		Dead Unvaccinated	Postponement by Medical Certificate	Removal to Districts the Vaccination Officer of which has been duly apprised	Removal to places unknown, or which cannot be reached; and cases not having been found	
1	2	3	4	5	6	7	8	9	10	11
1. North End and Buckland ...	814	715	5	...	12	53	21	5	2	1
2. Kingston and East Southsea ...	611	534	2	...	4	50	17	3	1	...
3. Portsea and Landport ...	717	618	2	...	2	70	13	7	4	1
4. Portsmouth and Mid-Southsea	552	488	1	...	3	38	9	8	4	1
Totals ...	2694	2355	10	...	21	211	60	23	11	3
VACCINATION OF CHILDREN whose Births were registered in this District from Jan. 1st to Dec. 31st, 1902, inclusive.										
1. North End and Buckland ...	1492	1293	6	...	13	166	5	6	3	...
2. Kingston and East Southsea ...	1205	1057	14	...	6	108	8	8	4	...
3. Portsea and Landport ...	1456	1252	3	...	6	177	7	5	6	...
4. Portsmouth and Mid-Southsea	1039	907	8	...	6	96	6	10	6	...
Totals ...	5192	4509	31	...	31	547	26	29	19	...

VACCINATION RETURNS FOR PAST TEN YEARS.

Year	No. of Births returned in birth sheets so registered from 1st Jan. to 31st Dec.	Successfully Vaccinated	Insusceptible to Vaccination	Had Small-Pox	Dead Unvaccinated	Postponement by Medical Certificate	Removed to Districts the Vacc. Officer of which has been apprised	Removed to places unknown	No. of these births remaining	No. in respect of which Certificates of conscientious objections have been received
1893	4706	4034	37	...	483	30	24	94	4	...
1894	4729	4147	20	...	412	46	18	82	4	...
1895	4896	4183	29	...	547	31	28	69	9	...
1896	4920	4329	25	...	476	31	35	20	4	...
1897	4924	4303	25	...	473	31	68	18	8	1
1898	4973	4243	22	..	518	32	46	26	10	61
1899	4981	4171	37	...	645	18	36	21	7	23
1900	5036	4385	60	...	521	26	27	20	4	37
1901	5287	4564	16	...	587	14	38	18	2	41
1902	5192	4509	31	...	547	26	29	19	...	31
1903 (June)	2694	2355	10	...	211	60	23	11	3	21

TABLE XIII.

Showing the number of cases of SCARLET FEVER notified, the number of deaths, and the percentage of deaths to cases notified for the years 1884-1903.

Year	Cases notified	No. of Deaths	Percentage of Deaths to notified cases
1884	266	9	3·38
1885	314	5	1·59
1886	343	18	5·24
1887	647	26	4·02
1888	465	12	2·58
1889	728	11	1·51
1890	573	19	3·31
1891	326	9	2·76
1892	1023	18	1·76
1893	1176	32	2·73
1894	458	14	3·06
1895	311	7	2·25
1896	524	19	3·62
1897	699	11	1·57
1898	710	27	3·80
1899	578	22	3·80
1900	348	11	3·16
1901	452	15	3·31
1902	603	14	2·32
1903	1167	17	1·46
Total (20 years)	11711	316	2·86

Table showing the number of cases of SCARLET FEVER admitted to the Milton Hospital, the number of deaths, and the percentage of deaths to number of cases of Scarlet Fever.

Year	Cases admitted	No. of Deaths	Percentage of Deaths to cases treated
1884	13	...	...
1885	16	...	...
1886	29	...	...
1887	56	1	1·78
1888	120	1	0·88
1889	278	1	0·36
1890	384	11	2·86
1891	180	3	1·66
1892	532	6	1·12
1893	503	6	1·19
1894	238	8	3·36
1895	177	2	1·13
1896	352	11	3·15
1897	413	9	2·17
1898	436	23	5·27
1899	333	6	1·80
1900	198	6	3·03
1901	270	6	2·20
1902	339	6	1·77
1903	572	5	0·87
Total (20 years)	5439	111	1·73

Scarlet Fever.—After several years during which scarlet fever was not very prevalent, we last year had no fewer than 1,167 cases notified. This is a larger number than in any year since 1893, when 1,176 cases occurred. The type of disease was mild, only 17 deaths occurred giving a case death-rate of 1·46 per cent., indicating a lower death-rate per cent. in scarlet fever cases than has occurred before in this Borough.

Scarlet fever first became markedly present in the week ending February 14th, and investigation proved it to be caused by an infected dairy in Portsea. The facts of this outbreak I presented on March 2nd, in the following Special Report :—

To the Chairman and Members of the Health Committee.

GENTLEMEN,

During the second week in February my attention was attracted by a sudden increased prevalence of cases of scarlet fever in Landport and Portsea. On February 11th I received two notifications, on the 12th, two, on the 13th, six, and on the 14th, nine notifications of this disease.

Investigation showed that eighteen of these nineteen cases were supplied by Mr. Geo. Chalmers, 70, Conway Street, and the nineteenth was supplied by a man Pedwell, whom it was ascertained obtained his milk from Chalmers. I therefore visited the dairy on February 14th, accompanied by Chief Inspector Bell and Inspector Monckom. I found there were still 52 gallons of milk on the premises about to be distributed, and as a man named Emery, who had had a case of scarlet fever notified in his family on the 14th inst., had been in contact with the milk, I deemed it advisable to at once destroy it and had the whole poured down the drain in my presence.

This was followed by an entire disinfection, in the presence of the Inspector, of every utensil employed in the dairy in connection with the milk. Still further, Emery's family was taken to the Hospital and kept there the night in order that the whole of their clothing might be thoroughly disinfected and their house completely disinfected from top to bottom.

I had hopes that these measures would arrest the outbreak, unfortunately on the next day, Sunday, February 15th, two cases occurred

in the family of Mr. Chalmers, Jun., who also lives at the dairy. I accordingly revisited the premises on Monday morning, the inmates of Chalmers' house were removed to the Hospital, and exactly the same steps taken as in the case of Emery. Once more I destroyed all the milk on the premises, and again a very careful disinfection of the dairy utensils was instituted. I further examined every person employed in the dairy, but found them all in good health.

The result of this action has apparently proved completely satisfactory, and I have not had another case attributable to this milk supply.

Altogether 44 cases of scarlet fever occurred amongst Chalmers' customers, the notifications being received as follows :—

On January	6th—4	notifications		On February	14th—	9	notifications
,, February	3rd—1	,,		,, ,,	15th—15		,,
,, ,,	10th—1	,,		,, ,,	16th— 1		,,
,, ,,	11th—2	,,		,, ,,	17th— 1		,,
,, ,,	12th—2	,,		,, ,,	19th— 2		,,
,, ,,	13th—6	,,					

I would make the following comments on the above outbreak. In the first place I took the responsibility of destroying the milk and compensating the owner at the rate of 1/- per gallon for new milk and 5d. a gallon skimmed, which amounted to £5 0s. 4d. This I did because the machinery of the Infectious Diseases (Prevention) Act is cumbersome, and had I waited to put it in force would have meant a delay of several days and necessitated calling the Council together twice. During that interval considerable mischief might have been done, and the cost to the town in maintaining in the Hospital patients who had in the meantime contracted the disease would alone probably have exceeded the above amount, to say nothing of the damage that might have resulted from allowing scarlet fever in the meantime to obtain a firm hold in the Borough.

Another point I should mention is the advisability of possessing a house, or a few rooms, to which a family could be moved when it is found necessary to shut up and disinfect an entire house.

Section 15 of the Infectious Diseases (Preventive) Act reads "The Local Authority shall from time to time provide, free of charge, temporary shelter or house accommodation, with any necessary attendants, for the members of any family, in which any infectious disease has appeared, who have been compelled to leave their dwellings for the purpose of enabling such dwellings to be disinfected by the Local Authority." At present we

have to depend on finding accommodation in the Hospital, but that is not a desirable place to take a family to, and, moreover, there is not always the room to spare. The want of a suitable place is often felt and more especially is it very necessary in cases of Small-pox, when it is always advisable to shut up the whole house for disinfection.

Lastly, I may mention that during my inspection of the cows at the dairy, I found a cow apparently suffering from tuberculosis; this was slaughtered at my suggestion, and the diagnosis being confirmed on *post mortem* examination, the carcass was seen by a magistrate and destroyed.

I have the honour to be,

Gentlemen,

Your obedient servant,

A. MEARNS FRASER,

Medical Officer of Health.

There were no more cases attributable to this dairy, and the number of cases of scarlet fever in the Borough fell during March and April, after that the disease became fairly prevalent and remained so during the year. The disease, as I have mentioned before, was of a very mild type, which I think in part accounts for its being so prevalent. I believe a number of children who had scarlet fever had it so slightly that it was not recognised, and no precautions being taken to isolate these very mild cases, they were instrumental in spreading the disease, especially in day or Sunday schools. Fortunately the scarlet fever of to-day is very different from the disease of fifty or sixty years ago. In the middle and early part of last century the deaths in cases of scarlet fever reached 20 and 30 per cent., but now the average is not more than four or five per cent., and in this Borough was not one and a half per cent. last year.

In connection with scarlet fever, and the large amount of money spent by the Authority on the Milton Hospital, the principal use of which is the isolation of Scarlet Fever patients, I presented the following report in October :—

Report on the Hospital Isolation of Scarlet Fever.

HEALTH DEPARTMENT,
October 5th, 1903.

To the Chairman and Members of the Health Committee.

GENTLEMEN,

The recent criticisms on Milton Hospital that have appeared in the local press, and further, the action of the Board of Guardians in writing to the Local Government Board, complaining of neglect on the part of the Sanitary Authority, have shown that a great deal of misunderstanding on this subject exists. In the hope, therefore, of presenting to you the issues in a clear light, I beg to submit the following report:

On several occasions of late years it has proved necessary to keep patients waiting a few days before admission to Hospital. Sometimes cases of scarlet fever, at other times of diphtheria, at others typhoid fever patients have been unavoidably kept waiting a few days before admission. This has been deemed sufficient to ground a charge of neglect against the Sanitary Authority by those, who, without understanding fully all the facts of the subject, are apparently of opinion that it is the duty of the Sanitary Authority to have at all times in readiness an isolation hospital large enough to admit all the cases of infectious disease that may occur in the town.

Now it is most important to note that on every occasion that patients have had to wait for admission the cause has been the large number of scarlet fever patients, and the large proportion of the Hospital that has been devoted to this disease. During the past nineteen years, 7,598 patients have been treated at the Hospital, of which 4,867, or 61 per cent., have been cases of scarlet fever. The determining factor, therefore, in estimating the size of the Hospital must be the number of Scarlet Fever patients that are to be admitted, and I may state at once that if you propose to maintain a Hospital large enough to admit *all* cases of scarlet fever, you should have a Hospital at least twice its present size.

The present annual cost of Milton Hospital, after deducting the receipts for maintenance of patients, may be taken at about £3,500. If the Hospital is going to be made large enough to take in all the scarlet fever patients that may seek admission, you may reckon on an increased annual expenditure of from £3,000 to £4,000. Before incurring this large annual charge, you will naturally wish to be sure, or at any rate to have good grounds for suppposing that the benefit to the inhabitants of the Borough will be commensurate with the expenditure.

The point, therefore, you have to decide is this: Is the benefit to the Borough that will result from the admission of every case of scarlet fever that desires hospital treatment worth an additional three or four thousand pounds per annum? It is to help you to arrive at the solution of this problem that I have prepared the following statement.

As the whole question of Hospital accommodation must turn upon the provision to be made for scarlet fever patients I would direct your attention to the following points :—

(*a*) Is scarlet fever a disease of such great importance, *i.e.,* is it a cause of so great a mortality or illness, as to warrant so large a proportion of the rates being spent upon it?

(*b*) Is it a disease of such a nature that the chances of the patients' recovery are much greater if treated in Hospital than if treated at home?

(*c*) Does isolation in an Infectious Diseases Hospital play a great part in preventing the spread of the disease, and is the liability to an epidemic in the town likely to be greatly increased by inability to isolate all cases?

First then, is scarlet fever a very important disease? The death returns of the Borough will give an answer to this question. During the past ten years the total number of deaths from scarlet fever have amounted to 172, and the total deaths from all causes amounted in the same period to 31,565. That is to say that only one out of every 200 deaths was caused by scarlet fever. To enable you better to compare the mortality from scarlet fever I have drawn up the following table showing some of the principal causes of death in the Borough during this period, and you will see that so far from scarlet fever being one of the most fatal, it is actually one of the least dangerous diseases.

Out of every 100 deaths in the past 10 years				Scarlet Fever	caused	0.554
,,	,,	,,	,,	Typhoid Fever	,,	1·54
,,	,,	,,	,,	Diphtheria	,,	1·68
,,	,,	,,	,,	Whooping Cough	,,	1·80
,,	,,	,,	,,	Measles	,,	2·30
,,	,,	,,	,,	Nephritis and Bright's Disease	,,	2·30
,,	,,	,,	,,	Pneumonia	,,	3·26
,,	,,	,,	,,	Cancer	,,	4·44
,,	,,	,,	,,	Heart Disease	,,	4·70
,,	,,	,,	,,	Diarrhœa	,,	6·80
,,	,,	,,	,,	Phthisis	,,	8·70
,,	,,	,,	,,	Bronchitis	,,	9·17

I have no hesitation whatever in stating then that scarlet fever, as we know it at present in this country, is a very mild disease, and plays a very slight part in the causation of death or permanent disablement.

Next—Is scarlet fever a disease of such a character that the chances of the patients' recovery are greatly enhanced by Hospital treatment?

Again the answer must be in the negative. It is only natural to suppose that with the skilled nursing available, *every* disease would benefit to a certain extent with hospital treatment, but the following facts will show that the benefit of hospital treatment to scarlet fever patients is very slight, not nearly so great as is the benefit to diphtheria or typhoid patients.

During the past years there have been 5,895 cases of scarlet fever notified in this town, of these 3,259 have been treated in the Hospital, and 2,600 at home. Of the hospital-treated patients 97·46 per cent. recovered, and in the home-treated patients 96·58 per cent. recovered. The benefit of Hospital treatment, therefore, does not increase the chance of recovery by one per cent.

If, on the other hand, we consider cases of typhoid and diphtheria, we find that in diphtheria 87 per cent. recover in Hospital, against 80 per cent. of recoveries in home treatment, and in typhoid 90 per cent. in Hospital, against 87 per cent. at home, recover.

It is obvious, therefore, that the patients' chances of recovery are *not* greatly enhanced by Hospital treatment.

Having seen, therefore, that in the first place scarlet fever is not a very fatal disease, and, in the second, that patients do not benefit to any very marked extent by Hospital treatment, we will now consider the third, and really the most important of the three questions—Does isolation in Hospital prevent the spread of scarlet fever?

This is really the crux of the whole matter. It is, moreover, a question that cannot be answered definitely one way or another.

I will, however, give you my views on the matter, together with some of the facts that have influenced me in forming my opinion, it will then be for you to decide whether you will adopt my views or not.

If an ideal system of isolation could be arranged, that is if every case of scarlet fever as soon as it occurs were at once moved into Hospital and isolated until free from infection, we might have reason to suppose it would be successful in arresting the disease. This, however, for the following reasons is impossible: In the first place cases of scarlet fever are often not recognised until they have commenced to peel, *i.e.*, for a week or ten days after the commencement of the disease. I have myself seen a number of examples of this in Portsmouth. During this period they may have the opportunity of spreading the disease broadcast. Again, even if

the disease is recognised early, there is no power to compel the patient to go to the hospital, this can only be enforced by a magistrate, who must first be satisfied that the patient is without proper accommodation at home. Next, even supposing you have at once removed the patient to Hospital, no one has yet been able to say definitely how long a patient remains infectious; the usual rule adopted is to keep the patient for six weeks, or at least until the skin has finished peeling and there are no abnormal discharges from the patient. This is the procedure usually adopted, but from the number of "return cases" that occur in every borough, it is evident that either there is some flaw in the theory or else that so far in practice it has been impossible to have the theory carried out effectually. By a "return case" is meant that after the patient has been sent to his home from the Hospital, someone else has caught the disease from him.

As it is evident we shall never have the ideal isolation I have described, we must consider the matter practically from the point of view of the isolation we may reasonably expect to obtain.

During the past ten years the proportion of scarlet fever cases isolated in Hospital has amounted to 57 per cent. The highest proportion isolated in one year was 67 per cent. in 1896, and the lowest was 43 per cent. in 1893. That is to say during the last ten years a mean of 47 per cent. of all the cases of scarlet fever in the town have been treated at home. Now in spite of this we have never, since 1893, when there were 1,176 cases, had an epidemic. Now during the past seven years of this period, which is as far as I can speak from personal experience, there have been few occasions when want of accommodation at the Hospital was the reason for so few being treated in Hospital. The simple reason was that people so often prefer to keep their children at home, and, if so, no one can prevent this, provided, of course, it can be done without undue risk of infection to other people. But even if we allow that an additional 10 per cent. of patients have been kept out for want of accommodation, a figure, I am certain, far in access of what has occurred, then no matter how big you build your Hospital there will always be more than 30 per cent. of the patients suffering from scarlet fever who will not go into Hospital.

It amounts to this then, that at a considerable expenditure you may isolate at the very outside 70 per cent. of scarlet fever patients.

But is it to be feared that the risk of an epidemic in the town will be effected very much by the difference between isolating 40 or 70 per cent. of the patients? Will there be a far greater risk to the town if 50 per cent. of the patients are treated at home than if only 30 per cent. are? I think not. To go a step further. Is the possibility, and it is only a possibility, of isolating an additional 30 per cent. of the scarlet fever patients worth between £3,000 or £4,000 a year? I must confess that I think not.

I believe that if we isolate these cases only, the nature of whose surroundings render them specially liable to spread the disease, such as cases at dairies, at tailoring businesses, at schools, etc., or those cases in which the presence of scarlet fever in the house prevents the inmates from following their occupation, if, I say, we isolate these cases, we shall do as much good as at present.

The view that I take, it is only right I should tell you, is not that taken by the majority of the Medical Officers of Health, and so far as I am aware, it is opposed to the practice recommended by the Local Goverment Board, at the same time it has not been arrived at by me without devoting considerable thought to the subject, nor do I stand alone in the views I have advanced. It is not only the result of my observation in this Borough, but it is strengthened by the perusal of very able articles published on the subject by Dr. Killick Millard and Dr. Marriott during the past few years.

I believe that the value of Infectious Disease Hospitals in the prevention of scarlet fever has been greatly over-estimated. I have repeatedly seen in Portsmouth a case of scarlet fever break out in a large family, the patient at once removed, the house disinfected, and then a second case occur, the same precautions repeated, to be followed by a third and even a fourth case. I have, on the other hand, seen a case occur in a large family, the patient treated at home, and yet no other case occur.

I have, moreover, not been uninfluenced by the following incident :— In 1892 the Infectious Diseases Hospital at Leicester was suddenly needed for some cases of small-pox. There were at the time 157 cases of scarlet fever in the Hospital. All of these, with the exception of 13, too ill to move, were at once sent home. Now, notwithstanding that these 144 patients were sent back in all stages of the disease, not a single return case occurred. Now, while it may be objected that these incidents *prove* nothing, and may be accidental, yet they must be given a certain weight in forming an opinion on the value of the hospital isolation of scarlet fever, especially in view of the absence of strong evidence on the other side.

I have endeavoured to put the case fairly before you. My remarks must be taken as applying only to scarlet fever. They do not apply, for reasons too long to state here, to diphtheria, typhoid fever, or small-pox. Even if there were plenty of money to be had I would not be strongly in favour of continuing the huge experiment of isolating scarlet fever in Hospital that has been tried for the last 20 years all over the country. I regard the experiment as a failure, and as we must very carefully consider our finances in this Borough, if the half-crown limit is not to be exceeded, I would ask you before acting on the complaints of the newspapers and Board of Guardians, to give the view I have advanced your careful consideration.

I may be right, or I may be wrong, and I am willing to admit that my views are heterodox, but so thoroughly convinced am I of the correctness of my opinion that I can no longer allow myself to urge you to go to the expense of the provision of large isolation-hospital accommodation, simply because the practice of scarlet fever isolation has, up to the present, been one of the accepted canons of the science of State Medicine.

I have the honour to be, Gentlemen,
Your obedient Servant,

A. MEARNS FRASER, M.D.,
Medical Officer of Health.

Since presenting the above report the value of the isolation hospital has been discussed very freely in various parts of the country, and is still going on. I am more and more convinced of the futility of the Hospital for the purpose for which it is intended, and I am in hopes that the expression of opinion that is being voiced in various quarters will result in an official investigation of the whole matter. Sanitary Authorities have not so much money at their disposal that they can afford such large sums as are now being expended on the isolation in hospital of cases of scarlet fever without far more proof than at present exists that a satisfactory return for the expenditure is being obtained.

I believe I should be rather under- than over-estimating the amount if I put the cost of the isolation of Scarlet Fever cases done in Hospital during the past ten years at £15,000; for this expenditure I am convinced we have had a very inadequate return. Had the same money been devoted to improving insanitary areas we should have had far better value for our money in the general sanitary improvement of the town. Moreover, this general betterment of the houses of the poor would have undoubtedly markedly affected the prevalence not only of scarlet fever, but of all other infectious diseases. The matter is one well worthy of your most careful consideration.

All the houses in which cases of scarlet fever occurred were visited and sanitary defects were found in 370 or 31·7 per cent.

TABLE XIV.

Table showing the number of cases of DIPHTHERIA notified, the number of Deaths, and the percentage of Deaths to cases notified, for the years 1884 to 1903.

Year	Cases notified	No. of Deaths.	Percentage of Deaths to cases notified
1884	174	41	23·44
1885	173	42	24·25
1886	232	55	26·72
1887	260	47	19·08
1888	128	17	13·28
1889	126	33	26·19
1890	212	47	22·69
1891	140	23	16·42
1892	121	26	21·48
1893	140	29	21·48
1894	139	34	24·46
1895	124	18	14·51
1896	124	20	16·12
1897	148	22	15·07
1898	283	54	19·08
1899	566	120	21·20
1900	568	104	18·30
1901	454	70	15·41
1902	495	62	12·52
1903	633	75	11·84
Totals (20 years)	5240	949	19·17

Table showing the number of cases of DIPHTHERIA admitted to the Milton Hospital, the number of Deaths, and the percentage of Deaths to cases of Diphtheria admitted, for the years 1884 to 1903.

Year	Cases admitted	No. of Deaths	Percentage of Deaths to cases notified
1884	4	1	25·00
1885	6	...	...
1886	11	1	9·09
1887	27	8	23·70
1888	23	...	...
1889	18	...	...
1890	64	18	28 12
1891	51	4	7·84
1892	27	6	22·22
1893	12	4	33·33
1894	38	8	21·05
1895	46	5	10·87
1896	41	4	9·80
1897	37	3	8·11
1898	118	19	16·10
1899	225	27	11·90
1900	211	28	13·27
1901	170	24	14·11
1902	197	23	11·67
1903	211	14	6·63
Totals (20 years)	1536	197	13·64

Diphtheria.—The number of cases of diphtheria notified was 633, this is the highest number yet occurring in one year, but although the number of cases was high the deaths, 75, were not so numerous as in 1899 and 1890, when they numbered 120 and 104 respectively. This disease occurred pretty constantly all through the year, the only period that showed any marked prevalence over the rest of the year were the second and third weeks in July, in which the figures were 29 and 30. As in the case of scarlet fever the percentage of deaths per cases was lower than it has been before in the Borough, namely 11·84 per hundred. Out of 633 cases, 211 were removed to Hospital, 422 being treated at home, of the Hospital treated cases 6·63 per cent., and of the home treated 14·4 per cent. proved fatal.

All the houses in which cases of diphtheria occurred were visited, and as a result sanitary defects were found in 192 or 30·3 per cent.

TABLE XV.

Table showing the number of cases of TYPHOID FEVER notified, the number of Deaths, and the percentage of Deaths to cases notified, for the years 1884-1903.

Year	Cases notified	No. of Deaths	Percentage of Deaths to cases notified
1884	539	58	10·76
1885	762	93	11·48
1886	1249	124	9·90
1887	554	53	9·52
1888	313	27	8·60
1889	317	32	10·01
1890	457	50	10·94
1891	265	33	12·40
1892	330	38	11·51
1893	361	54	14·96
1894	201	25	12·44
1895	258	33	12·74
1896	235	27	11·49
1897	320	42	13·08
1898	305	43	14·10
1899	531	75	14·12
1900	1083	92	8·49
1901	324	43	13·27
1902	448	54	12·05
1903	216	23	10·65
Total (20 years)	9058	1019	11·60

Table showing the number of cases of TYPHOID FEVER admitted to the Milton Hospital, the number of Deaths, and the percentage of Deaths to cases of Typhoid Fever admitted, for the years 1884 to 1903.

Year	Cases admitted	No. of Deaths	Percentage of Deaths to cases treated
1884	2	...	...
1885	6	...	...
1886	66	4	6.06
1887	37	1	2·70
1888	35	...	...
1889	48	6	12·50
1890	114	5	4·38
1891	51	4	7·84
1892	81	6	7·41
1893	94	3	3·19
1894	53	3	5·85
1895	83	4	4·82
1896	83	6	7·23
1897	102	11	10·78
1898	92	14	15·31
1899	96	12	12·50
1900	157	18	11·46
1901	101	11	10·89
1902	105	13	12·38
1903	70	3	3·94
Total (20 years)	1476	124	6·96

Typhoid Fever.—During the past year only 216 cases of typhoid fever were notified in the whole Borough, this is a fewer number than in any of the past twenty years, with the single exception of 1894, when 201 cases occurred. The deaths from this disease amounted only to 23, and a comparison of the records of the Health Department show that in no year, from 1861, which is as far as our records go, and then, by the way, the population of the town was only 95,220, up to the present have the deaths from fever ever reached so low a figure. The percentage of deaths to cases notified is also a little below the average, being 10·65 per cent., whereas the average percentage of case mortality for typhoid in the Borough during the last twenty years is 11·60.

In previous reports I have referred to the part played by soil pollution combined with high temperature in the causation of typhoid. The experience of last year would seem to bear this out. With so heavy a rainfall, 35·18 inches, the amount of polluted matter gaining access to the soil would naturally be much diluted, and moreover the temperature last year was so low as to be extremely unfavourable to the growth and spread of bacterial life. Supporting this is the extremely low mortality recorded from epidemic summer diarrhœa, a disease influenced by somewhat similar conditions to those playing a casual part in the prevalence of typhoid fever.

Although I attribute this sudden fall in the number of cases of fever largely to meteorological conditions, the fact must not be lost sight of that the sanitary condition of the Borough is gradually improving, and to this factor must be also attributed, at any rate, some of the credit for the reduced fever rate.

In connection with the causation of typhoid fever I presented a report on the condition of some watercress beds at Havant, from which a quantity of water is sent into Portsmouth. This bed is considerably polluted by the waste products from the Havant Parchment Works, and by the drainage from an adjacent refuse heap. The attention of the Hants County Council and Havant Urban District Council was called to these

polluting agencies, but nothing has been done to remedy them. There is no doubt that cases of typhoid are sometimes caused through eating watercress grown in water polluted by sewage organisms, therefore considerably more attention should be paid throughout the country to keeping such watercress beds free from pollution.

Another article of diet often concerned in the dissemination of typhoid bacilli is the oyster ; a year ago I presented a lengthy report upon this subject, so need say nothing further on the subject this year. I may mention, however, that on June 11th, acting on information received that some oysters from beds at Emsworth, which I knew to be polluted, were being brought into the town, I seized them on their arrival at three shops in Portsmouth, and had them destroyed.

With reference to the connection between shell-fish and typhoid and more especially uncooked shell-fish, I would draw attention to the fact that 38 or 17·5 per cent. of the cases of typhoid had partaken of oysters, cockles, or winkles within a short time of being taken ill ; 27 of the cases had eaten cockles, 6 had oysters, and 5 had winkles. It is impossible to say that in every case shell-fish were the cause of the disease, but considering the great risk of sewage pollution to which shell-fish are exposed and in view of our past experience, one is forced to regard them with grave suspicion. It seems a matter for regret that legislative measures regulating the shell-fish industry are not introduced.

During May some scare was caused in the country by the announcement that a number of blankets used by our soldiers during the war in South Africa, and which were consequently liable to be polluted by typhoid discharges, had been sold and disposed of throughout the country. A few lots had been sent to this town, on being notified of which I had them collected and disinfected. So far I am aware there was no case of typhoid in Portsmouth attributable to this cause.

Inspection of the premises on which cases of typhoid fever occurred revealed sanitary defects in 78 or 36·1 per cent.

Diarrhœa.—Owing largely to the wet and cold summer and autumn few deaths among children from infantile epidemic diarrhœa were registered. The actual number was 115, which is a fewer number than in any of the eight past years. I have on previous occasions gone fully into the cause and prevention of this disease and into its relationship with heat and dryness, it is unnecessary therefore to say more on the subject except to call attention perhaps to the striking way in which, under the meteorologic conditions of last year, the incidence of the disease declined. The rainfall last year registered in Portsmouth amounted to 35·18 inches, this rainfall is higher than any of recent years with the exception of 1894, when 35·89 inches were registered. During last year there was, as stated above, 115 deaths from epidemic diarrhœa, in 1894 there were only 93. During the previous ten years, 1893-1902, the average death rate, per 10,000 living, from diarrhœa has been 12·0, during 1903 it was only 5·9. This reduction of over 50 per cent. in the death rate means that there were 119 fewer deaths in 1903 than the average of past years would have led us to expect.

TABLE XVI.

Showing the relationship of TEMPERATURE and FATAL CASES of DIARRHŒA.

Week ending	Temperature of Air		Temperature of Earth Thermometer		Total Rainfall in inches	Deaths from Diarrhœa
	Mean of Maximum	Mean of Minimum	1 Foot	4 Feet		
1903						
June 6th ...	68·6	52·6	60·9	55·9	0·05	1
,, 13th ...	63·2	49·1	59·3	56·7	0·71	1
,, 20th ...	56·6	46·8	56·1	56·1	1·43	2
,, 27th ...	64·9	51·5	58·6	56·1	—	2
July 4th ...	70·1	55·3	64·5	58·2	—	1
,, 11th ...	72·3	55·4	64·3	59·2	0·06	1
,, 18th ...	69·3	54·9	66·0	60·5	0·16	6
,, 25th ...	68·1	55·2	64·2	61·0	1·59	3
Aug. 1st ...	65·4	56·6	63·2	60·9	0·82	2
,, 8th ...	67·9	54·5	62·7	60·4	0·07	9
,, 15th ...	67	55·4	63·1	60·8	1·46	9
,, 22nd ...	65·8	54·6	61·8	60·1	1·62	9
,, 29th ...	65·5	53·6	61·0	60·2	1·16	4
Sept. 5th ...	69·4	57·9	63·4	60·8	1·81	14
,, 12th ...	62	50·8	59·4	60·7	0·55	7
,, 19th ...	60·3	46·2	55·6	58·9	—	5
,, 26th ...	65·4	56·6	59·5	58·1	0·25	1
Oct. 3rd ...	65·1	57·3	60·6	59·2	0·74	5
,, 10th ...	61·6	54·2	59·0	59·1	1·90	1
,, 17th ...	58·9	51·1	56·0	58·3	2·05	2
,, 24th ...	56·3	47·8	53·4	58·5	1·33	2
,, 31st ...	56·8	47·6	52·9	58·7	2·26	3

Measles.—The Borough was comparatively free from this disease, only seventeen deaths occurred altogether during the year, of these nine occurred in the first quarter, four in the second and third, and none in the last quarter. The average number of deaths during the previous ten years was 74 per annum.

The disease was most prevalent in connection with the children attending the Beneficial Society's Schools, Portsea. I visited the school on May 7th, and sent home several children who appeared to be sickening for the disease, at that time there were 56 absentees out of a roll of 202 in the Infant School. On May 18th on visiting again I found 60 of the infants were absent, mostly through Measles. Acting on my advice the Managers closed the Infant Department for four weeks. After this the disease died down.

This is one of the most difficult diseases to control once it has got a foothold in a district, and up to the present we have been able to devise no very satisfactory way of dealing with it. Improved sanitary conditions generally and the efforts that have been made to improve the conditions of the houses of the working classes have doubtless not been without their effect in lowering the mortality from measles, and it is upon these measures chiefly that we depend, together with the issue of leaflets warning parents and guardians against the fatal complications that are apt to supervene in this disease unless the greatest care is taken of the patients.

TABLE XVII.

WEEKLY RETURN of Cases of Infectious Diseases reported in accordance with the Infectious Disease (Notification) Act, 1889, during the year 1903.

Week Ending		Small-pox	Scarlet Fever	Diphtheria	Fevers		Puerperal	Erysipelas	Croup	Total
					Enteric	Continued				
January	10th ...	...	10	9	4	...	...	1	...	24
,,	17th ...	...	11	16	1	...	...	1	...	29
,,	24th ...	...	11	18	5	...	...	1	...	35
,,	31st ...	...	21	19	...	1	...	...	...	41
February	7th ...	...	6	13	1	...	2	...	...	22
,,	14th ...	...	40	14	2	...	...	...	...	56
,,	21st ...	...	30	13	1	2	...	1	...	47
,,	28th ...	...	13	13	2	2	...	3	...	33
March	7th ...	...	11	7	...	...	...	1	...	19
,,	14th ...	...	15	9	2	...	...	...	1	27
,,	21st ...	...	14	5	3	...	...	1	...	23
,,	28th ...	...	3	12	4	...	...	2	...	21
April	4th ...	1	9	11	3	...	...	2	...	26
,,	11th ...	...	19	6	1	...	...	...	...	26
,,	18th ...	...	20	11	1	...	...	2	...	34
,,	25th ...	...	15	3	3	...	...	...	...	21
May	2nd ...	...	20	8	3	...	...	1	...	32
,,	9th ...	...	14	6	1	...	...	3	...	24
,,	16th ...	...	29	12	...	1	...	...	...	42
,,	23rd ...	...	16	15	5	2	...	2	...	40
,,	30th ...	...	14	18	5	...	1	3	...	41
June	6th ...	...	27	19	5	...	...	...	...	51
,,	13th ...	...	31	15	2	...	...	...	...	48
,,	20th ...	...	25	7	6	1	...	1	...	40
,,	27th ...	...	45	17	10	...	...	2	...	74
July	4th ...	...	30	29	8	...	...	...	...	67
,,	11th ...	...	28	20	5	...	...	1	...	54
,,	18th ...	...	34	13	3	...	...	...	...	50
,,	25th ...	...	34	13	10	...	...	2	...	59
August	1st ...	...	28	17	5	...	...	1	...	51
,,	8th ...	...	21	15	12	...	1	1	...	50
,,	15th ...	...	19	14	6	...	...	...	...	39
,,	22nd ...	...	9	8	4	...	...	...	...	21
,,	29th ...	...	28	8	3	...	...	1	...	40
September	5th ...	...	21	12	6	...	1	1	...	41
,,	12th ...	...	37	10	9	...	...	2	...	58
,,	19th ...	...	14	8	6	...	...	4	...	32
,,	26th ...	...	41	9	5	2	...	3	...	60
October	3rd ...	...	30	19	10	...	...	...	...	59
,,	10th ...	...	30	11	6	...	...	2	...	49
,,	17th ...	...	25	12	3	...	1	2	...	43
,,	24th ...	...	32	16	2	...	1	...	...	51
,,	31st ...	...	34	10	9	...	1	1	...	55
November	7th ...	...	21	6	3	...	1	3	...	34
,,	14th ...	...	30	16	2	1	...	2	...	51
,,	21st ...	...	24	15	2	...	...	1	...	42
,,	28th ...	...	25	13	2	1	...	4	...	45
December	5th ...	...	27	17	7	...	...	5	...	56
,,	12th ...	1	14	8	9	...	...	3	...	35
,,	19th ...	...	25	5	5	...	...	2	...	37
,,	26th ...	...	12	9	2	...	...	3	...	26
January	2nd ...	1	25	4	2	...	...	3	...	35
Total	...	3	1167	633	216	13	9	74	1	2115

TABLE XVIII.

Showing the number of Infectious Diseases reported to the Medical Officer of Health under the Infectious Diseases (Notification) Acts of 1883 and 1889.

Year	Small-pox	Scarlet Fever	Diphtheria	Fever		Puerperal Fever	Erysipelas°	Membranous Croup	Totals
				Enteric	Continued				
1885 ...	8	314	173	762	...	2	...	...	1259
1886 ...	7	343	232	1249	...	14	...	...	1845
1887 ...	23	647	260	554	...	11	...	...	1495
1888 ...	3	465	128	313	...	11	...	...	920
1889 ...	6	728	126	317	...	6	...	...	1183
1890 ...	...	573	212	457	125	4	...	...	1371
1891 ...	...	350	138	265	52	15	...	...	820
1892 ...	...	1023	121	330	76	2	...	...	1552
1893 ...	6	1153	135	366	69	25	...	...	1754
1894 ...	22	458	139	201	49	9	...	...	878
1895 ...	...	311	124	258	62	15	...	...	770
1896 ...	6	524	124	235	51	18	...	...	958
1897 ...	...	699	148	320	64	19	...	...	1250
1898 ...	...	710	283	305	44	15	...	...	1357
1899 ...	1	578	566	631	32	17	...	...	1725
1900 ...	...	348	568	1083	52	20	...	...	2071
1901 ..	1	452	454	325	25	13	36	1	1306
1902 ...	8	603	495	448	32	9	50	5	1650
Totals ...	91	10279	4426	8318	733	225	86	6	24164
Means ...	5·4	604·6	260·4	490	43	13·2	43	3	1416
1903 ...	23	1167	633	216	13	9	74	1	2116

° Not a notifiable disease in this Borough until the passing of the Infectious Diseases (Notification) Extension Act, 1899.

TABLE XIX.

Number of Patients Admitted to the Hospital for the Years 1883 to 1903.

DISEASES	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903
Small-pox ...	5	1	8	7	20	4	6	1	...	...	6	22	...	6	...	...	1	...	1	8	3
Scarlet Fever ...	1	13	16	29	56	120	278	384	180	532	503	238	177	352	413	436	333	198	270	339	572
Enteric or Typhoid ...	2	6	66	37	35	48	114	51	81	94	53	83	76	102	92	96	157	101	105	70	
Diphtheria ...	...	4	6	11	27	23	18	69	52	27	12	38	46	38	37	118	225	211	170	197	211
Measles ...	1	2	1	11	4	8	5	1	22	...	6	22	15	10	6	6	...	1	...	...	...
Other Diseases ...	...	...	...	1	3	8	8	7	18	5	5	9	25	17	11	10	2	...	...	..	2
Totals ...	7	22	37	125	147	198	363	576	323	645	626	382	346	499	569	662	657	567	542	649	858

Bacteriology.—A considerale amount of time has again been occupied with the bacteriological examination of cases of infectious disease, &c. Altogether 608 investigations have been made by me, the larger portion, 409, has been done in connection with suspected cases of diphtheria, and it is in this disease that at the present time bacteriological diagnosis seems most valuable.

The following table gives a summary of the cases examined and the results obtained.

Diseases	Result		Total
	Positive	Negative	
Diphtheria	201	208	409
Tuberculosis ...	56	72	128
Typhoid	10	15	25
Other Examinations ...	...	...	46
Total ...	267	295	608

Water Supply.—The public water supply has, as usual, been analysed on various occasions by me during the year. The water usually is beautiful in quality, of a fine sparkling appearance, cool and of a pleasant taste, and with the exception of those periods when it became cloudy owing to heavy rains, no fault can be found with it.

Portsmouth is particularly fortunate in having some of the finest chalk springs in the country to utilise as a public supply. A chalk water is certainly one of the pleasantest and most palatable waters that can be obtained, and I do not know of any other chalk springs equally prolific in the country ; the yield is about 15,000,000 gallons a day, and could probably be increased if found necessary.

The analyses always indicate the water to be chemically of a high character, and most suitable for domestic use, the only objection that can be brought against it from a chemical point of view is its hardness, due to the presence of calcium carbonate ; this, however, except from a manufacturing aspect, is of little importance. It is impossible to ascertain the collecting area of these springs definitely, but probably it is situated in the north of Hampshire, whence the water travels in underground streams to Havant and Bedhampton, where the springs are tapped by the Company, and the water comes to the surface.

Now, although up to the present, so far as we have any evidence to show, the water supply of Portsmouth has been as pure and wholesome in fact as in appearance, there is yet another consideration. In dealing with the supply on which a population of over 200,000 people depend, it is not sufficient to show that the water is pure, there is another equally important point to be decided—is the water also, so far as human foresight can go, free from any possibility of pollution ? This is most vital. Waters that have caused widespread epidemics have always been excellent as a general rule, it is only when some accident has happened that they have spread disease, therefore, although the Portsmouth supply is apparently

excellent yet, I am bound again to point out that the fact of the water becoming discoloured after heavy rains is a suspicious sign that should not be neglected. Cloudiness and discoloration is caused by fine particles of matter either mineral or vegetable, which, although possibly harmless in themselves, naturally raises the question that if such particles which are visible to the naked eye, gain admission, what guarantee have we that injurious bacteria which are not visible to the naked eye, may not also gain admission to the water supply? This cloudiness occurs after a heavy rain, and was very marked in May of last year, in consequence of which I presented the following special report on the Waterworks :

23rd May, 1903.

To the Chairman and Members of the Health Committee,

Portsmouth.

GENTLEMEN,

Borough of Portsmouth Water Works.

The Sub-Health (Water) Committee, consisting of the Chairman (Alderman A. Leon Emanuel, J.P.), the Vice-Chairman (Councillor Emmett), Councillors Dummer, Gillett, and H. Pink, J.P., visited the reservoirs and springs of the Borough of Portsmouth Waterworks Company on May 19th inst., and desires me to report thereon as follows—

Reservoirs at Farlington. The reservoirs on the south side of Portsdown Hill at Farlington were first visited. So far as concerns the actual reservoirs, these were clean and well kept, but immediately to the north of the reservoirs is a large field of agricultural land. Inasmuch as this is manured, and heaps of manure are left on the field, particles of which may readily be blown into the water in the reservoirs, your Committee is of opinion that no land immediately surrounding the reservoirs should be cultivated, but that it should instead be laid out in grass. It might be pointed out that the Sub-Committee of the Drainage and Sanitary Committee, after visiting the reservoirs made the same suggestion in October, 1897.

Bedhampton. Works. The Bedhampton works were next inspected; here the only point on which the Committee were not satisfied was the condition of the Blue Hole Spring, and the

conduit running to it from St. Chads' Well on the north side of the railway. In the banks forming the sides of the spring and conduit are a number of rat holes, and your Committee are of opinion that the channel of the conduit and the sides of the Blue Hole Spring should be formed of concrete or other impervious material. This suggestion also was made by the Sub-Committee of 1897.

Havant Works.

These springs were found in good condition, clean and well kept. Here again, however, is a matter calling for attention, namely, the Brockhampton Stream which flows along outside the eastern and southern borders of the works. This stream is grossly polluted by sewage and also offal from the Parchment Works adjoining. The smell from this stream at the time of the Committee's visit was most offensive. It is true that being at a lower level than the Company's springs the risk of pollution is very slight, still the close proximity of so foul a stream to the Portsmouth public water supply ought not to be permitted, and steps should be taken to do away with the danger, remote though it appear to be.

Sewerage of Havant.

No report on these Waterworks is complete that does not point out the danger arising from the lack of an efficient system of sewerage for Havant. In the report on the Works issued by the Local Government Board in August, 1897, considerable stress was laid upon the danger to the water from this state of affiairs. Acting on this report the Water Company, supported by the Portsmouth Corporation, made complaint to the Local Government Board under Sec. 299, Public Health Act, 1875, that the Havant Urban District Council had made default in not providing a proper system of sewerage for that town, the Local Government Board then held an enquiry on the matter, the result of which was that on June 3rd, 1899, the Board issued an Order requiring the Havant Urban District Council to provide a proper system of sewerage within six months of that date. This is now nearly four years ago, and nearly three and a half years have elapsed since the expiration of the period of six months allowed to the Havant Urban District Council in which to complete the sewering of their district. So far, however, no system of sewerage has been installed, and the Order of the Board is apparently ignored.

Recommendations.

Your Committee, in view of the foregoing, submit the following recommendations :—

(1)—That the land surrounding the reservoirs at Farlington be laid out in grass, and that representations on this matter be made to the War Office to whom the land in question belongs.

(2)—That the banks at the side of the Blue Hole Spring be cemented, together with the whole channel of the conduit leading from St. Chads' Well to the Blue Hole.

(3)—That the grossly polluted Brockhampton Stream should for the whole distance in which it is in close proximity to the Water Works be enclosed in an iron pipe, in the same manner as has been done with the Hermitage Stream, or else that the course of the stream be directed from the borders of the Company's Works. Also that the attention of the County Council be called to the condition of this stream with a view to their exercising their powers under the Rivers Pollution Prevention Act, 1876.

(4)—That the attention of the Local Government Board should be called to the continued default made by the Havant Urban District Council in sewering their district, pointing out that three and a half years have elapsed since the expiration of the time limit fixed by the Board for the completion of the work.

(5)—And, lastly, the Committee feels that the cloudiness, discoloration, and excessive amount of suspended matter noticed in the water after a heavy rainfall, such, for instance, as was very pronounced in the early part of this month, must excite considerable doubt as to the purity of the water during such periods. Your Committee thinks, therefore, that the Water Company should be called upon to provide efficient sand filters to prevent the recurrence of such a condition in the future.

Conclusion.

In conclusion, your Committee would state that with the exception of the points mentioned, the springs, reservoirs, and collecting basins were found to be well kept, and there was plenty of evidence to show that considerable care had been taken to safeguard the purity of the water supply. It was noted that most of the

suggestions made by the Sub-Committee in 1897 had been carried out, namely: the sewage from Fort Purbrook now discharges on the north side of Portsdown Hill at a considerable distance from the reservoirs, instead of on the south side of the tube as formerly; the group of five houses which existed about 150 yards to the west of the Bedhampton Works has been removed; the St. Chads' Well on the north side of the railway has been covered over; and lastly the tannery adjoining the Havant Works has been abolished.

Your Committee visited every part of the Company's Works, and wishes to acknowledge with thanks the courtesy shown by Mr. Ashley, the Engineer to the Water Company, who kindly accompanied them for the purpose of affording any information that might be required.

I have the honour to be,

Gentlemen,

Your obedient servant,

A. MEARNS FRASER, M.D.,

Medical Officer of Health.

Since the above report was presented, practically nothing has been done to carry out the suggestions made therein, and the cloudiness still persists after heavy rain and stormy weather.

The following **Analyses of Water** have been made during the past year. The results are expressed in parts per 100,000.

Date	Source	Total Solids	Volatile Solids	Chlorine	Chlorine equivalent to common salt	Nitrogen as Nitrates & Nitrites	Total Hardness	Oxygen absorbed in 2 hours at 27° C.	Free or Saline Ammonia	Albuminoid or Organic Ammonia	Nitrites and Sulphates	Physical Character
Jan. 26	Company's Water	29·0	...	2·0	3·3	0·24	28·0	...	0·000	0·004	Nil ...	Clear, colourless, free from suspended matter
Feb. 5	„ „	28·6	...	1·9	3·1	0·26	28·0	...	0·000	0·0056	Nil ...	Clear, colourless, free from suspended matter
„ 26	„ „	28·6	...	2·0	3·3	0·328	28·5	...	0·000	0·0028	Nil ...	Clear, colourless, free from suspended matter
Mar. 12	„ „	29·2	...	2·14	3·42	0·368	28·0	...	0·000	0·0035	Nil ...	Clear, colourless, free from suspended matter
„ 18	Well at Portsea Island Union	45·4	18·14	6·42	10·58	0·191	22·85	0·0093	0·002	0·0094	Sulphates	Dirty yellow, large amount of suspended matter, dirty, transient charring.
„ 23	Company's Water	29·0	14·85	2·0	3·3	0·22	28·5	0·0006	0·000	0·0028	Nil ...	Clear, colourless, free from suspended matter, no charring on ignition.
April 15	„ „	29·0	14·0	1·93	3·17	0·24	27·8	0·0004	0·000	0·0028	Nil ...	Clear, colourless, free from suspended matter, no charring on ignition.
May 4	„ „	29·57	13·14	1·85	3·03	0·17	28·57	...	0·000	0·0072	Nil ...	Greyish tinge, cloudy, no charring on ignition.
„ 15	„ „	29·00	13·57	1·98	3·26	0·33	29·28	0·0009	0·000	0·0029	Nil ...	Clear, colourless, free from suspended matter, no charring on ignition.
„ 25	„ „	28·00	12·38	1·86	3·06	0·197	29·85	...	0·000	0·0026	Nil ...	Clear, colourless, free from suspended matter, no charring on ignition.
June 11	„ „	29·5	13·9	1·83	3·01	0·185	29·4	...	0·000	0·006	Nil ...	Clear, colourless, free from suspended matter, no charring on ignition.
„ 18	Company's Water from 27, St. Andrew's Road	31·71	14·85	1·94	3·19	0·23	29·4	...	0·000	0·008	Nil ...	Not quite clear, slight amount of suspended matter, no charring on ignition.
Aug. 15	Company's Water	29·0	...	1·80	3·0	0·28	28·0	...	0·0014	0·003	Nil ...	Clear, free from suspended matter, very transient discoloration on ignition.
Sept. 18	„ „	29·0	...	1·85	3·03	0·20	28·4	...	0·000	0·004	Nil ...	Clear, free from suspended matter.
Oct. 8	„ „	29·2	...	1·7	2·80	0·18	28·57	...	0·000	0·0024	Nil ...	Clear, faint yellowish tinge, free from suspended matter.
Dec. 7	„ „	27·86	13·06	2·07	3·51	0·20	28·6	...	0·000	0·004	Nil ...	Clear, colourless, free from suspended matter, no charring on ignition.
„ 10	Well at Fratton Road	157·8	...	10·86	17·89	5·59	75·7	...	0·0022	0·0116	Mrkd. sulphates	Clear, free from suspended matter, yellowish tint.

Factory and Workshop Act, 1901.—Under Section 132 of this Act, the Medical Officer of Health is required to report specifically on the administration of this Act in workshops and workplaces. I therefore append special tables showing the number of workshops in the Borough, the number of persons employed therein, and the various sanitary measures taken during the year.

General sanitary supervision has been exercised over 1604 workshops and workplaces. Mr. Gray, the Factory and Workshop Inspector, has paid 3407 visits under this and the Shop Hours Act, 628 nuisances have been abated, a list of which follows. In a number of these cases visits were also paid by me.

A considerable amount of work is entailed in obtaining lists of outworkers from firms who give out homework, and up to the present the benefits from this enactment seem hardly commensurate with the trouble involved.

As regards underground bakehouses, certificates have been granted to the following only :

34, King's Road, Southsea.
172, Commercial Road, Landport.
15, Hanover Street, Portsea.

During the summer months a constant supervision was again exercised over the houses in which makers of ice-cream lived, and the stalls in the streets and along the seashore were frequently inspected to ascertain that the clothes and water used for washing the glasses were kept clean.

Nuisances in respect to workshops :—

Drains repaired	130
,, cleansed	17
W.C. fittings repaired	41
Ventilating shafts raised or repaired ...	11
Paving repaired	85
Soil pipes ventilated	12
Waste pipes repaired or disconnected from drains	22

Yards drained	3
Water closets ventilated	3
Water closets repaired	6
"Pan" closets removed	3
"Bell" traps removed	1
Water laid on to W.C.'s	6
Workshops cleansed	48
Bakehouses ,, ...	23
Workshops ventilated	6
Flooring repaired	28
Spouting ,, ...	62
Roofs ,, ...	46
Sashes ,, ...	19
Walls ,, ...	12
Urinals ,, ...	2
Animals removed	2
Refuse ,, ...	3
Manure ,, ...	4
Foul rain water tanks removed	3
New W.C. pans provided	5
Water closets cleansed	8
Ice cream stores ,, ...	9
Smoke nuisances abated	2
Overcrowding in workshops discontinued ...	6
Total ...	628

Registered workshops :—

Trade	No. of Workshops	Persons employed— Male	Female	Totals
Bakers ...	184	736	...	736
Blindmakers	2	8	...	8
Bootmakers	71	205	...	205
Bookbinders	8	32	24	56
Boatbuilders	1	3	...	3
Brassworkers	3	18	...	18
Brushmakers	2	30	14	44
Carpenters	43	253	...	253
Cabinet makers	14	70	...	70
Capmakers	4	5	25	30
Cigarette makers	2	3	6	9
Coppersmith	1	3	...	3
Cutler	1	2	...	2
Coachbuilders	13	130	...	130
Corset makers	9	2	38	40
Cork cutters	3	9	...	9

Trades	No. of Workshops	Persons employed: Males	Females	Totals
Cooper	1	3	...	3
Cycle makers	38	139	...	139
Dress and mantle makers	381	...	1726	1726
Drug packers	2	2	14	16
Firewood cutters	30	96	...	96
Fitters	10	50	...	50
French polishers	8	33	...	33
Furriers	3	...	7	7
Gluemaker	1	4	...	4
Gutscraper	1	6	...	6
Jewellers	21	63	...	63
Laundries	76	...	515	515
Lathrenders	3	12	...	12
Lampmaker	1	...	4	4
Milliners	87	...	415	415
Optician	1	4	...	4
Plaster modellers	2	10	...	10
Pea packer	1	...	24	24
Plumbers	9	45	...	45
Picture-frame makers	17	82	...	82
Photographers	23	44	23	67
Piano makers	2	20	...	20
Pincushion makers	3	4	13	17
Rag sorters	4	28	...	28
Smiths	26	104	...	104
Sugar boilers	6	24	...	24
Sewing machine makers	1	6	...	6
Stonemasons	6	70	...	70
Saddlers	10	32	...	32
Shirtmakers, etc.	7	...	25	25
Scalemaker	1	6	...	6
Sailmaker	1	3	...	3
Tailors	384	952	1666	2618
Tinsmiths	8	32	...	32
Ticket writers	10	34	...	34
Trunk makers	3	21	...	21
Toy makers	2	3	2	5
Upholsterers	24	78	2	80
Umbrella makers	3	9	...	9
Wheelwrights	15	60	...	60
Wire mattress maker	1	4	2	6
Zinc worker	1	2	...	2
Miscellaneous trades	9	41	7	48
Totals	1604	3635	4552	8187

Outworkers.—In compliance with Section 107 of the Act, 65 firms have sent in lists, the number of outworkers employed by these firms being 735. They are engaged upon the following work :

Corset making	...	425
Tailoring	...	268
Bootmaking	...	10
Capmaking	...	3
Shirts and underclothing		29

Refuse Disposal.—I have nothing further to add to my remarks in past years on this matter. The expense is still apparently an insurmountable obstacle in the erection of a destructor, and outlying parts of the Borough are being used for the deposit of refuse. I have during the past year received very few complaints of any nuisance being caused from it, this is probably due to last year being cold and wet, thus decomposition and putrefaction was delayed, so that the nuisance never became pronounced ; moreover, the site for refuse disposal is at a considerable distance from inhabited houses, and it is hoped that by its disposal at Great Salterns no nuisance whatever may be caused in the future.

Houses Unfit for Habitation.—The following 12 houses have, on my certificate, been closed by the Sanitary Authority, as unfit for human habitation :

Situation of Premises	Date
Upper part of premises, No. 12, Kingston Road, Landport	14th May, 1903.
1, 2, and 3, Bartlett's Buildings, King's Bench Alley	1st July, 1903.
15, King's Bench Alley	do.
10 & 11, do.	do.
1, do.	do.
44, White's Row, Portsea	do.
13, Southampton Row, Portsea ...	do.
12, do. do. ...	do.
6, Brunswick Street, Southsea ...	19th Sept., 1903.

TABLE XXVI.

MILTON HOSPITAL.

NUMBER OF PATIENTS ADMITTED
during the Year 1903.

DISEASES	AGES								TOTAL
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 and over	
Small-pox ...	...	...	1	...	1	...	...	...	2
Scarlet Fever...	1	140	373	45	11	2	...	...	572
Typhoid Fever	...	8	32	14	8	5	3	...	70
Diphtheria ...	..	57	125	17	7	5	...	...	211
Scarlet Fever-Diphtheria ...	...	...	1	...	...	...	...	...	1
Pneumonia ...	...	...	1	...	...	...	...	...	1
Totals ...	1	205	433	76	27	12	3	...	857

Milton Hospital.

To the Chairman and Members of the Health Committee.

GENTLEMEN,

The total number of patients treated during the year was 921. This is the largest number since the hospital has been established. It was due to the large number of scarlet fever patients admitted. The greatest number of patients in the hospital on one day was on October 19th, when there were 127. As the number of beds in the hospital when every building is occupied only amounts to 82, there was serious overcrowding in the scarlet fever wards with the inevitable results. The combined mortality in respect of all cases admitted was 2·56 per cent. The number of cases in which the original diagnosis was not confirmed amounted to 41 or 4·78 per cent.

Scarlet Fever.—The number of scarlet fever cases was 572. Of these 5 died, the mortality being 0·87 per cent. The highest number on any one day was 97. As the total accommodation for scarlet fever amounts to 50 beds, the number of patients was largely in excess of what is advisable. I trust that if the recommendations of Dr. Fraser with regard to the isolation of scarlet fever are carried out, we may not have again to provide for so large a number of patients. Crowded wards produce many of the troublesome complications of scarlet fever, *e.g.*, discharges from the ear and nose and post scarlatinal-diphtheria, thus necessitating a long detention in hospital.

Post Scarlatinal-Diphtheria.—There were 14 cases. All were confirmed by a bacteriological examination, and all recovered. I can only attribute the outbreak to the over-crowding of the wards.

Diphtheria.—The number of cases of diphtheria admitted was 211. Of these one was suffering from suppurating tonsilitis,

and one from syphilis. In 32 cases the diphtheria bacillus was not found. The mortality per cent. was 6·63.

Enteric Fever.—The number of cases admitted was 70. Seven were suffering from a disease other than that for which they were admitted. Of these two were cases of meningitis, one pneumonia in an adult, one broncho-pneumonia in a child ; and three had no rise in temperature after admission. The mortality was 4·28 per cent.

Varicella.—A child suffering from diphtheria developed chicken-pox ten days after admission, one other child contracted the disease. A patient with scarlet fever also developed chicken-pox six days after admission, with the result that eleven others in the ward developed it. There were no deaths.

Illness of Staff.—Two nurses contracted scarlet fever, two diphtheria : all recovered.

During the year the additions to the administrative block and a new discharge ward, have been commenced. The former is a very much needed improvement, it will allow an increase in the nursing staff to be made, and give room for a much needed improvement in the domestic arrangements of the hospital. I trust your Committee will see the advisability of providing increased and better laundry accommodation ; the present building is quite inadequate, and with the proposed addition of a new enteric ward, such alteration will become quite imperative.

I have the honour to remain,

Your obedient servant,

JAMES McGREGOR,

Medical Superintendent.

Meteorological Observations in Portsmouth for 1903.

Station in Victoria Park ; situation, Lat. 50° 48′ 4″ N., Long. 1° 55′ W.

The observations have been taken regularly each morning at nine o'clock by Mr. Hearn, who reports as follows on the readings during the past year. The station comprises the following instruments with Stevenson's screen : Standard barometer, maximum thermometer, minimum thermometer, dry-bulb thermometer, wet-bulb thermometer, rain-gauge, black-bulb maximum thermometer *in vacuo*, minimum thermometer for terrestrial radiation, and Jordan's photographic sunshine recorder. The whole of the instruments have been verified at the Kew Observatory and are periodically tested.

Mean Readings for the Year.

Temperature :—

Mean, 9 a.m.	...	51·7	Extremes—		
,, Minimum	...	46·1	Minimum	...	23·5
,, Maximum	...	56·6	Maximum	...	80·1
Mean range	...	10·5	Mean amount of cloud		6·4
Mean of max. and min.		51·4	Humidity	...	83·5

Rainfall.—The total rainfall registered during the year was 35·18 inches ; this is the second highest rainfall as yet recorded in the borough.

The harvest month was an extremely wet one, rain falling on no less than 17 days.

The rainfall for October was exceptionally heavy, not only in Portsmouth but throughout the country, and as a consequence there were serious floods and enormous damage done to crops which were still out standing.

The following table shews the total rainfall and the number of days on which rain fell during each month, together with the greatest fall in 24 hours :

RAINFALL.

1903	Total amount in inches	Number of days on which 0·01 or more rain fell	Greatest fall in 24 hours	Date of Greatest Fall
January ...	2·12	21	0·63	4th
February ...	1·61	12	0·62	27th
March ...	2·46	19	0·49	17th
April ...	2·50	10	1·08	28th
May ...	2·49	9	1·01	3rd
June ...	2·29	10	0·64	19th
July ...	2·61	15	0·66	23rd
August ...	4·23	17	0·77	11th
September ...	2·99	13	1·80	4th
October ...	7·90	29	1·00	11th
November ...	1·71	13	0·85	27th
December ...	2·27	13	0·45	10th & 12th
Total ...	35·18	181	Greatest fall in 24 hours, 1·80	Sept. 4th

Snow fell slightly on three occasions only, viz., on April 13th and July 11th and 13th.

The following table shows the total rainfall for the past 14 years :

Year	Total Rainfall in inches	Number of Rainy Days	Greatest Fall in 24 hours	Date of Greatest Fall
1890 ...	21·65	171	1·11	July 17th
1891 ...	31·24	182	1·52	Aug. 20th
1892 ...	22·27	146	1·11	Aug. 18th
1893 ...	23·15	157	0·88	July 4th
1894 ...	35·89	187	1·78	Nov. 11th
1895 ...	27·59	147	1·17	Oct. 30th
1896 ...	25·66	156	1·31	Sept. 2nd
1897 ...	28·38	163	1·13	Aug. 26th
1898 ...	22·65	142	1·45	Nov. 23rd
1899 ...	25·26	118	3·25°	July 23rd
1900 ...	28·50	171	0·98	Jan. 6th
1901 ...	24·11	131	1·30	June 30th
1902 ...	24·16	148	1·14	Aug. 18th
Means ...	26·18	155	Greatest fall in 24 hours, 3·25	July 23rd
1903 ...	35·18	181	1·80	Sept. 4th

°Fell between 1.30 and 3 o'clock p.m. Sunday, July 23rd.

ABSTRACT OF METEOROLOGICAL OBSERVATIONS made at Portsmouth during the year 1903.

DATE. — Week ending.	Barometer reduced to Sea Level and 32° F.	TEMPERATURE.												Humidity	Total Bright Sunshine (Jordan's Recorder)	Amount of Cloud	WIND.								RAINFALL.			
		IN SHADE.						IN SUN.		ON GRASS.		Mean of Earth below Ground.		Wet Bulb.			Number of Days.											
	Mean 9 a.m.	Mean 9 a.m.	Mean Max.	Mean Min.	Mean of Max. and Min.	Highest Max.	Lowest Min.	Blk. bulb in vacuo Mean	Bright b. in vacuo Mean	Mean Min.	Lowest Min.	1 Ft.	4 Ft.	Mean 9 a.m.	Mean 9 a.m.	Mean 9 a.m.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Total (Inches)	No. of Days 0·01 Inch or more rainfall	Greatest fall in 24 hours	Date of Greatest Fall
1903															H. M.												
Jan. 10...	29·594	48·0	56·7	44·9	48·4	53·7	39·0	66·2	54·6	37·4	27·5	45·2	46·8	46·2	87·0	8 55	6·5	...	...	...	...	1	2	3	...	1·08	7	0·63	Jan. 4
,, 17...	30·222	31·3	35·3	28·7	34·5	40·5	23·7	62·8	44·3	22·0	17·0	38·4	46·2	29·8	82·0	21 30	4·0	2	3	2	...	...	...	...	...	0·23	2	0·20	,, 17
,, 24...	30·189	43·0	46·3	36·7	41·5	48·8	31·5	57·8	49·7	32·4	24·0	40·2	44·1	40·9	84·0	8 15	9·0	...	...	3	1	1	...	2	...	0·18	5	0·07	,, 22
,, 31...	30·249	46·0	49·4	43·1	46·2	51·0	41·5	74·4	56·6	38·2	31·0	44·5	45·5	43·6	83·0	14 25	7·0	...	...	...	...	...	4	3	...	0·27	4	0·15	,, 31
Feb. 7...	30·117	43·1	47·2	40·2	43·7	50·5	32·5	75·3	54·6	32·4	23·0	42·6	45·7	41·8	90·0	16 10	6·7	...	...	...	...	1	2	3	1	0·66	2	0·05	Feb. 1
,, 14...	30·431	45·7	50·2	43·5	46·8	52·2	34·0	71·4	56·9	37·1	24·0	46·1	46·5	44·8	93·0	3 50	7·0	1	...	...	...	...	1	5	...	0·01	1	0·01	,, 9
,, 21...	30·382	45·7	50·0	42·5	46·3	56·0	38·5	73·9	59·5	36·6	25·0	44·4	46·7	43·6	86·0	20 25	8·0	...	...	1	...	2	2	2	...	0·08	2	0·06	,, 15
,, 28...	29·801	46·2	50·4	43·1	46·8	52·4	37·5	91·9	61·9	37·6	32·0	45·9	46·9	44·8	93·0	24 10	7·6	1	...	...	...	...	3	3	...	1·46	7	0·62	,, 27
Mar. 7...	29·699	46·0	50·5	40·1	45·3	54·0	35·0	92·1	62·8	35·5	29·5	44·3	46·9	44·9	93·0	15 20	7·7	...	...	...	...	1	2	4	...	1·05	6	0·37	Mar. 1
,, 14...	30·015	45·8	49·9	38·1	44·0	53·0	29·0	94·0	63·4	30·3	18·5	43·5	46·5	44·2	92·0	31 40	5·0	...	...	...	1	5	...	1	...	0·10	2	0·07	,, 9
,, 21...	29·985	47·0	52·0	43·2	47·6	54·3	38·5	95·1	67·3	37·0	26·0	45·9	46·4	44·6	82·0	34 25	7·0	...	...	...	...	2	1	4	...	0·52	3	0·49	,, 17
,, 28...	29·966	51·3	57·2	46·5	51·8	60·0	40·2	104·6	74·6	41·6	37·0	49·4	47·6	49·5	88·0	41 40	6·0	...	...	...	...	2	4	...	1	0·67	6	0·18	,, 26
April 4...	30·042	48·7	52·4	42·5	47·5	54·5	35·0	102·7	70·9	37·9	27·0	48·1	49·0	45·1	78·0	38 35	6·6	...	...	...	...	...	...	6	1	0·26	5	0·11	April 1
,, 11...	30·151	49·2	53·8	40·9	47·1	56·5	35·5	107·2	73·2	35·6	27·3	48·1	49·0	46·1	79·0	32 30	7·4	2	...	...	...	1	1	1	2	...	...	...	...
,, 18...	30·162	41·7	48·2	33·9	41·6	50·3	30·5	102·3	68·7	27·3	23·0	45·5	48·8	40·2	92·0	51 10	3·5	6	...	...	...	...	...	...	1	0·01	1	0·01	,, 14
,, 25...	29·751	46·1	51·7	35·2	43·4	54·0	31·0	106·0	71·6	28·6	21·4	45·9	48·1	43·9	89·0	47 10	3·0	4	1	...	1	...	...	...	1	0·38	1	0·38	,, 25
May 2...	29·480	51·7	55·3	47·3	51·3	57·0	43·0	115·2	77·3	48·1	39·0	48·1	50·3	49·3	85·0	26 0	7·0	...	...	...	1	1	4	1	...	2·60	7	1·08	,, 28
,, 9...	29·521	52·0	56·8	47·8	52·3	58·5	44·0	118·0	79·2	45·2	42·0	53·4	50·5	50·2	87·0	46 35	7·7	...	...	1	2	3	...	1	...	1·34	2	1·01	May 3
,, 16...	29·986	51·1	55·2	45·4	50·3	58·5	41·5	110·6	71·2	36·4	26·5	53·2	52·2	47·9	80·0	24 10	7·0	...	3	...	...	...	1	3	...	0·13	1	0·13	,, 16
,, 23...	30·098	56·3	61·7	46·3	54·0	69·3	39·5	119·5	79·4	38·2	29·0	54·7	52·2	52·9	80·0	71 5	9·0	1	...	...	2	1	...	1	2	0·12	2	0·10	,, 22
,, 30...	30·070	62·6	70·3	50·9	60·2	70·5	44·0	129·7	91·0	45·8	37·0	58·3	53·9	61·1	93·0	69 15	3·0	...	3	4	...	...	...	...	...	0·27	2	0·15	,, 28
June 6...	30·139	60·6	68·6	52·6	60·2	80·0	44·0	122·8	87·5	46·8	39·0	60·9	55·9	59·4	94·0	57 40	4·0	...	6	...	...	...	...	1	...	0·05	1	0·05	June 1
,, 13...	29·996	57·1	63·2	49·1	56·2	67·0	46·0	122·4	84·4	44·7	37·0	59·3	56·7	54·3	83·0	33 55	7·0	1	2	2	1	1	...	...	...	0·71	4	0·34	,, 13
,, 20...	29·694	51·6	56·6	46·8	51·7	63·5	44·0	99·9	70·5	43·9	37·0	56·1	56·1	49·6	86·0	21 5	9·0	1	2	2	...	1	...	1	...	1·43	5	0·64	,, 19
,, 27...	30·151	60·7	64·9	51·5	58·2	72·0	42·0	123·7	85·1	44·8	32·0	58·6	56·1	56·3	74·0	72 5	4·0	1	...	...	2	2	...	2	...	...	...	...	...
July 4...	30·204	65·3	70·1	55·3	62·7	74·0	51·0	130·0	93·1	46·9	43·0	64·5	58·2	60·1	72·0	81 50	2·0	1	...	...	1	1	...	3	1	...	...	...	...
,, 11...	30·158	63·3	72·3	55·4	63·8	80·0	48·0	126·8	92·2	50·5	43·0	64·3	59·2	59·6	79·0	67 40	4·0	3	...	...	...	1	...	1	2	0·06	1	0·06	July 5
,, 18...	29·860	63·0	69·3	54·9	62·1	73·5	49·5	128·9	90·3	50·6	41·0	66·0	60·5	58·0	72·0	48 0	5·0	...	...	...	...	3	1	1	2	0·16	4	0·08	,, 16
,, 25...	29·970	62·3	68·1	55·2	61·7	71·5	51·0	124·4	88·6	50·6	45·0	64·2	61·0	58·0	75·5	38 20	6·6	1	...	...	...	2	1	1	2	1·59	5	0·65	,, 23
Aug. 1...	29·841	60·1	65·4	56·6	61·0	69·9	53·0	118·4	83·7	53·6	48·0	62·2	60·9	57·1	82·0	27 15	8·0	...	...	...	...	1	1	3	2	0·82	6	0·35	,, 28
,, 8...	30·065	63·2	67·9	54·5	61·2	71·0	47·8	124·7	88·0	49·0	38·0	62·7	60·4	58·4	73·5	59 50	4·0	...	...	...	...	...	1	4	2	0·07	1	0·07	Aug. 2
,, 15...	29·753	61·4	67·0	55·4	61·2	69·0	51·0	123·7	86·5	48·3	42·0	63·1	60·8	57·8	75·5	50 20	7·0	...	...	...	...	2	1	4	...	1·45	6	0·77	,, 11
,, 22...	29·702	60·4	65·8	54·6	60·2	69·0	50·0	122·0	85·6	50·1	44·0	61·8	60·1	56·1	76·0	45 55	6·7	...	...	...	...	...	...	4	3	1·62	5	0·63	,, 18
,, 29...	29·974	59·8	65·5	53·6	59·6	67·0	46·0	127·3	85·9	47·5	37·5	61·0	60·2	56·7	75·0	40 55	6·0	...	...	...	...	4	1	1	1	1·16	4	0·60	,, 24
Sept. 5...	30·016	64·9	69·4	57·9	63·7	76·2	54·0	124·0	87·6	52·0	46·0	63·4	60·8	61·6	78·5	49 35	5·0	...	...	...	...	3	3	1	...	1·81	2	1·80	Sept. 5
,, 12...	29·941	56·6	62·0	50·8	56·4	66·0	42·5	117·1	80·9	45·9	35·0	59·4	60·7	53·3	81·0	42 40	5·4	...	...	...	...	...	...	2	5	0·55	4	0·37	,, 10
,, 19...	30·199	54·2	60·3	46·2	53·2	66·0	43·0	117·7	80·4	39·7	33·0	55·6	58·9	50·6	77·0	43 35	4·0	2	2	3	...	...	...	...	...	...	...	...	...
,, 26...	30·102	60·4	65·4	56·6	61·0	69·2	50·0	117·1	83·5	50·4	38·5	59·5	58·1	57·5	82·5	38 30	8·0	...	...	5	...	2	...	...	...	0·25	3	0·17	,, 26
Oct. 3...	29·862	61·5	65·1	57·3	61·2	66·5	55·0	118·2	82·0	51·6	46·5	60·6	59·2	59·2	85·5	31 5	7·4	...	...	...	...	4	2	1	...	0·74	7	0·30	,, 28
,, 10...	29·743	57·5	61·6	54·2	57·9	64·5	44·0	106·1	76·0	48·1	35·0	59·0	59·1	55·1	85·0	25 40	6·7	...	...	...	...	...	3	3	1	1·90	7	0·64	Oct. 4
,, 17...	29·592	54·7	58·9	51·1	55·0	62·5	46·0	100·5	71·2	47·1	42·0	56·0	58·3	46·0	81·0	31 20	6·0	1	...	...	...	1	2	2	1	2·05	6	1·00	,, 11
,, 24...	29·814	53·3	56·3	47·8	52·0	57·5	38·5	94·9	68·5	40·7	28·2	54·4	58·5	50·8	83·0	10 20	9·0	...	...	...	...	4	1	1	1	1·33	7	0·50	,, 21
,, 31...	29·540	52·1	56·8	47·6	52·2	59·0	37·0	95·7	69·0	42·4	26·0	52·9	58·7	49·7	82·0	24 20	7·3	...	...	...	1	2	2	2	...	2·25	6	0·85	,, 26
Nov. 7...	30·374	48·7	53·8	44·7	49·2	56·0	40·6	88·3	64·4	37·4	29·0	51·8	55·0	46·2	82·0	25 55	4·0	3	...	2	...	1	...	...	1	0·15	1	0·15	Nov. 2
,, 14...	30·177	51·8	54·8	46·2	50·5	57·0	42·5	78·2	61·8	40·0	28·5	50·4	53·7	49·8	86·0	8 20	9·4	...	...	...	...	1	2	3	1	0·15	4	0·07	,, 13
,, 21...	29·993	42·7	42·3	36·0	39·1	52·5	30·0	83·3	58·7	28·3	20·0	46·0	52·8	39·4	76·0	20 55	7·4	2	...	...	...	...	...	2	3	0·17	2	0·11	,, 17
,, 28...	30·030	47·7	52·1	43·6	47·8	55·0	37·0	70·3	56·9	37·6	27·0	47·5	51·1	45·7	85·0	12 45	7·0	...	...	...	...	...	...	5	2	1·04	5	0·85	,, 27
Dec. 5...	29·569	37·8	43·4	33·4	38·4	48·0	24·0	69·7	50·4	26·8	12·5	42·6	50·1	35·7	82·0	16 30	6·0	3	2	...	...	...	...	2	...	0·38	2	0·20	,, 29
,, 12...	29·364	43·9	49·4	39·4	44·4	52·1	29·0	73·5	54·7	31·0	17·0	42·4	48·2	42·4	90·0	15 5	8·0	1	...	...	...	3	3	...	...	1·90	7	0·45	Dec. 10 & 12
,, 19...	29·684	43·7	46·5	41·9	44·2	50·0	38·6	59·9	49·4	34·1	26·5	44·3	48·0	42·3	88·0	6 0	8·7	...	...	2	2	2	1	...	...	0·15	4	0·09	,, 13
,, 26...	29·990	42·5	44·9	39·6	42·2	49·0	37·0	53·7	46·4	36·5	30·0	44·7	48·0	41·5	92·0	0 0	10·0	...	1	4	...	...	1	...	1	0·04	1	0·04	,, 26
Jan. 2...	30·070	31·1	35·9	29·7	32·8	40·0	25·5	52·6	39·6	24·1	18·5	39·0	44·2	29·9	84·0	7 40	8·6	...	...	7	...	...	...	...	...	0·06	2	0·04	Jan. 2
Sums ...	1557·478	2692·4	2944·1	2400·3	2671·6	3129·9	2100·4	5176·5	3691·5	2102·2	1652·4	2719·9	2739·3	2553·5	4334·0	1702 30	329·9	37	25	38	15	62	53	93	40	34·88	180		
Weekly Mean	29·951	51·8	56·6	46·1	51·3	66·1	40·3	99·5	70·9	42·0	31·7	52·3	52·6	49·1	83·3	32 44	6·3	...	...	...	...	...	...	...	...	0·67	...		

DARTNELL & CO., PORTSMOUTH.

The climatological conditions during the year proved most disastrous both to the fruit and harvest crops, the frost being answerable for immense destruction of fruit. The greatest harm was no doubt caused by the two frosts which occurred on May 14th and 19th, when 5½ and 3 degrees respectively were registered.

During the year frost occurred on 73 occasions, viz. :

January	14	days frost.	Greatest amount in 24 hrs.,	15	degs.
February	9	,,	,, ,,	9	,,
March	8	,,	,, ,,	13·5	,,
April	13	,,	,, ,,	10·6	,,
May	2	,,	,, ,,	5·5	,,
June	1	,,	,, ,,	Freezing pt.	
October	2	,,	,, ,,	6	degs.
November	9	,,	,, ,,	12	,,
December	15	,,	,, ,,	19·5	,,

On August 17th it was only 6 degrees, and on August 26th only 5·5 degrees above freezing point.

Appended is the abstract of the meteorological observations during the year.

APPENDIX.

TABLE I.—For Whole District.

Year	†Population estimated to middle of each year	Births		Deaths under one year of age		Deaths at all ages—Total		Deaths in Public Institutions
		No.	Rate*	No.	Rate per 1000 Births regtd.	No.	Rate*	
1893 ...	165,153	4,708	28·51	763	162	3,058	18·52	438
1894 ...	167,878	4,709	28·05	611	129	2,593	15·44	429
1895 ...	170,672	4,868	28·52	856	175	3,129	18·33	477
1896 ...	173,565	5,006	28·84	785	156	3,030	17·46	518
1897 ...	176,497	4,879	27·74	819	167	2,974	16·85	520
1898 ...	179,500	4,971	26·58	681	137	3,048	16·98	502
1899 ...	182,576	5,000	27·33	986	197	3,738	20·47	560
1900 ...	185,725	4,994	26·89	771	154	3,359	18·09	687
1901 ...	188,885	5,267	27·88	858	162	3,367	17·82	644
1902 ...	191,909	5,284	27·53	800	151	3,269	17·03	571
Averages for years, 1892-1902	178,236	4,968	27·78	793	159	2,956	17·70	534
1903 ...	194,960	5,431	27·95	620	114	2,867	14·75	517

*Rates calculated per 1,000 of estimated population.

†Revised according to census returns of 1901.

APPENDIX.—TABLE II.

Year / Names of Localities	Whole Borough				Portsmouth				Portsea				Kingston				Landport				Southsea			
	Population estimated to middle of each year	Births registered	Deaths at all ages	Deaths under one year	Population estimated to middle of each year	Births registered	Deaths at all ages	Deaths under one year	Population estimated to middle of each year	Births registered	Deaths at all ages	Deaths under one year	Population estimated to middle of each year	Births registered	Deaths at all ages	Deaths under one year	Population estimated to middle of each year	Births registered	Deaths at all ages	Deaths under one year	Population estimated to middle to each year	Births registered	Deaths at all ages	Deaths under one year
1893	165,153	4,708	3,058	763	6,920	122	91	19	15,298	353	196	41	60,222	1,952	999	330	68,938	2,094	1,174	314	13,573	187	160	29
1894	167,878	4,709	2,593	611	6,900	123	72	14	15,200	323	139	35	62,915	2,087	873	274	68,990	1,965	935	244	13,823	211	145	13
1895	170,672	4,868	3,129	856	6,845	129	71	23	15,170	336	180	63	64,500	2,146	1,049	358	70,084	2,035	1,146	356	14,073	222	206	32
1896	173,565	5,006	3,030	785	6,834	157	83	18	15,000	458	200	57	66,000	2,243	936	308	71,408	2,078	1,090	333	14,323	170	203	20
1897	176,497	4,897	2,974	819	6,809	108	70	13	14,750	318	161	32	67,750	2,250	985	360	72,611	2,048	1,052	360	14,577	173	186	11
1898	179,500	4,971	3,048	681	6,800	170	84	24	14,500	333	204	53	69,250	2,219	1,531	303	73,877	2,063	1,075	282	15,073	186	154	19
1899	182,576	5,000	3,737	986	6,500	...	95	31	14,200	...	218	62	72,050	...	1,349	462	74,033	...	1,326	380	15,823	173	186	11
1900	185,725	4,995	3,359	771	6,200	...	79	28	14,000	...	248	70	73,072	...	1,607	328	75,603	...	1,224	317	16,850	...	201	28
1901	188,885	5,267	3,367	858	6,500	...	90	30	14,200	...	234	66	73,670	...	1,621	438	76,803	...	1,230	293	17,812	...	192	31
1902	191,909	5,284	3,269	800	6,500	...	74	18	14,500	...	195	46	75,694	...	1,620	405	77,103	...	1,197	317	17,812	...	183	14
Avgs. of 10 yrs., '93-'02	178,236	4,968	3,156	793	6,671	141	81	22	14,682	354	197	52	68,512	2,015	1,257	356	72,942	2,047	1,157	319	15,394	189	172	21
1903	194,960	5,431	2,867	620	6,671	...	70	...	13,533	...	211	...	77,468	...	1,436	...	78,476	...	983	...	18,612	...	167	...

APPENDIX.

TABLE III.—Cases of Infectious Diseases notified during the Year 1903.

Notifiable Disease	Cases notified in Whole District							Total Cases notified in each Locality					No. of Cases removed to Hospital from each Locality					
	At all ages	Under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwds.	Ports-mouth	Portsea	Kingst'n	Land-port	South-sea	Ports-mouth	Portsea	Kingst'n	Land-port	South-sea	Total
Small-pox	3	...	...	1	...	2	...	...	1	2	...	...	...	1	2	...	...	3
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria	633	5	189	361	45	33	...	13	19	363	205	33	3	10	120	63	15	211
Membranous croup ...	1	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
Erysipelas	74	3	5	8	4	42	12	1	5	44	23	1	...	...	...	...	...	...
Scarlet Fever ...	1167	8	339	708	77	35	...	19	76	694	353	25	8	35	345	162	22	572
Typhus Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever ...	216	1	26	81	51	54	3	6	16	115	71	8	2	5	39	22	2	70
Relapsing Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever ...	13	...	2	4	4	3	...	...	...	9	3	1	...	...	...	...	...	...
Puerperal Fever ...	9	...	...	...	5	4	...	...	...	7	2	...	...	...	...	...	...	...
Plague	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals ...	2116	17	562	1163	186	173	15	39	117	1234	658	68	13	51	506	247	39	856

APPENDIX.—TABLE IV.—Causes of, and Ages at, Death during year 1903.

CAUSES OF DEATH	Deaths in whole District at subjoined ages							Deaths in Localities (at all ages)					Deaths in Public Institutions
	All ages	Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	Portsmouth	Portsea	Kingston	Landport	Southsea	
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	17	3	12	2	...	...	...	...	2	6	8	1	...
Scarlet Fever	27	4	10	11	1	1	...	...	2	16	9	...	6
Whooping Cough	34	18	16	...	...	...	...	...	2	16	14	2	...
Diphtheria or Membranous Croup ...	75	3	39	33	...	...	...	1	1	38	28	7	17
Croup	5	...	5	...	...	...	...	...	...	2	3	...	...
Fever { Typhus ... / Enteric ... / Other continued }	23	...	3	4	6	9	1	1	2	13	5	2	8
Epidemic Influenza	20	2	1	1	...	9	7	...	2	14	3	1	7
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa	115	78	23	1	...	12	1	5	13	53	44	...	17
Enteritis	16	9	1	2	...	3	1	...	1	9	6	...	1
Puerperal Fever	3	...	...	...	...	3	...	...	...	...	3	...	...
Erysipelas	7	3	3	...	...	1	...	...	1	1	5	...	...
Other Septic Diseases	6	1	...	1	...	3	1	...	...	5	1	...	...
Phthisis	269	7	4	9	51	189	9	8	23	156	74	8	66
Other Tubercular Diseases ...	69	23	24	8	7	7	...	2	9	40	16	2	20
Cancer, Malignant Disease ...	163	...	...	...	...	97	66	2	5	76	58	22	32
Bronchitis	216	57	20	2	1	46	90	7	18	92	91	8	22
Pneumonia	121	36	26	8	8	33	10	4	11	58	43	5	17
Pleurisy	4	...	1	...	1	2	...	...	...	1	2	1	...
Other Diseases of Respiratory Organs	46	6	12	1	2	10	15	2	5	17	19	3	1
Alcoholism / Cirrhosis of Liver	63	...	...	...	1	51	11	2	2	30	26	3	8 / 2
Venereal Diseases	11	5	...	...	...	5	1	...	...	7	4	...	5
Premature Birth	104	104	...	...	...	...	...	3	9	59	30	3	5
Diseases and Accidents of Parturition	11	...	...	...	4	7	...	...	1	7	3	...	...
Heart Diseases	290	10	12	12	13	157	97	8	20	131	103	28	51
Accidents	83	19	8	8	3	30	15	4	10	41	23	5	23
Suicides	21	...	...	...	1	19	1	1	4	6	9	1	3
All other causes	1048	234	56	22	21	304	411	20	68	542	353	65	206
All causes	2867	622	265	125	120	998	737	70	211	1436	983	167	517

Port Sanitary Authority.

To the Chairman and Members of the Port Sanitary Authority.

GENTLEMEN,

I have to report that no infectious disease occurred on board any of the ships in the port during the past year, but I must again point out that we have at present no hospital ship, or infectious hospital in connection with the port, for isolating any cases of plague or cholera that may be brought to the port.

The following is the list of ships entering the port during the past year, all have been visited by the Port Sanitary Inspector, Mr. Thomas Meades, and, when occasion required, by myself—

Vessels from foreign ports	...	474
Vessels from coasting ports	...	1578
Vessels from places within the waters of the Solent—steamers, etc.	...	7569
Total	...	9621

The following are the nationalities of the foreign vessels :

French	55	Danish	16	Dutch	4
Norwegian	39	Russian	11	Spanish	3
German	33	Swedish	5	American	4

I have the honour to be,

Your obedient servant,

A. MEARNS FRASER, M.D.,

Medical Officer to the Port of Portsmouth.

Report of
The Chief Inspector of Nuisances,

FOR THE YEAR 1903.

To the Chairman and Members of the Health Committee.

GENTLEMEN,

I have the honour to submit my Eighteenth Annual Report of the work carried on by your Inspectors of Nuisances, and at the same time to thank the Committee for the consideration and the kindness the Inspectors and myself have always received at your hands.

During the year, 3758 notices were issued for the abatement of nuisances, etc., against 3439 for the year 1902. This year there have been only six district inspectors, whereas during the year 1902 there were seven district inspectors. There have also been changes in the staff which has tended to somewhat disorganize the department.

The following works have been carried out under the supervision of your officers, viz.—

DRAINAGE DEFECTS.

Drains cleansed	381
„ repaired or relaid with water-tight cement joints	1721
„ ventilated or ventilating shafts repaired or raised	41
Sink waste pipes disconnected from drains ...	19
Rain water pipes disconnected from drains ...	35
Soil pipes repaired	64
„ removed to the outside of houses ...	15
"Pan" closets removed and replaced by "washdown" W.Cs.	13
New water closet pans provided ...	957
Water closet fittings repaired ...	512
Water closets repaired	18
„ cleansed	66

Water laid on to water closets ...	62
Extra water closet accommodation provided ...	4
Cesspits cleansed	17
Waste pipes repaired or provided ...	212
,, trapped	18
Glazed earthenware sinks provided ...	127
Yards drained	22

DEFECTS IN CONNECTION WITH DWELLING HOUSES.

Roofs repaired	621
Outside walls repaired or protected ...	64
Sashes and frames repaired or renewed ...	519
Stairs or flooring repaired	412
Space under flooring ventilated ...	12
Damp proof courses provided ...	2
Houses or portions of houses cleansed ...	518
Walls and ceilings repaired	323
Rain water spouts repaired or provided ...	757
Galvanized iron dust bins provided ...	13
Yards repaved	1021
Urinals repaired	2
,, cleansed	6
Overcrowding in dwelling houses abated ...	52
Deadwells filled in	12

OFFENSIVE MATTER, &c.

Manure removed	92
Refuse ,, ...	87
Bones and offal ,, ...	16
Human excrement ,, ...	20
Stagnant water ,, ...	9

ANIMALS.

Animals removed	22

SLAUGHTERHOUSES, STABLES, &c.

Slaughterhouses cleansed and limewashed ...	39
Cow stables ,, ,, ...	8
Stables ,, ,, ...	62
Stables drained	44
,, paved	69
Sties paved and drained	42
,, cleansed and limewashed ...	63
Manure pits provided	34
,, ,, repaired	4

BYE-LAWS.

Notices under slaughterhouse bye-laws not complied with	4
,, nuisance ,, ,,	67
,, dairies, cowsheds, and milkshops	3
,, common lodging house ...	5

The following articles of food have either been seized or given up by the owners or consignees for destruction, as unfit for the food of man, viz.—

Carcases of Beef	...	...	8
,, Mutton		...	3
,, Pork	...	...	81
Quarters of Beef	...	...	8
Pieces of Meat	...	... lbs.	84
Bacon	...	... side	1
Suet	...	... lbs.	42
Tripe	...	... kegs	5
Kidneys (Pig's)	...	... ,,	11
,, ,,	...	...	119
,, (bullock's)	...	...	213
,, ,,	...	... cases	10
Pork chines	...	cwt. 3, qrs. 2	
Ox tails	...	...	85
Bullock's livers	...	...	29
Pig's plucks	...	...	51
Sheep's plucks	...	...	18
Chitterlings	...	... sets	59
Cows' udders	...	...	2
Mackerel	...	...	1500
Hake	...	...	32
,,	...	... boxes	4
Codfish	...	... ,,	2
Cod's roes	...	... kit	1
Smelts	...	... boxes	29
Ling	...	... barrels	17
Salted cod	...	... cwt.	1
Whiting	...	... boxes	11
,,	...	... barrel	1
Pollock	...	... box	1
Herrings	...	... kits.	30
,, (loose)	...	...	1560
Kippers	...	... boxes	93
Bloaters	...	... ,,	580
Haddock (dried)	...	... ,,	239

Haddock	...	...	cwt. 239
Skate	...	...	,, 2
Sprats	...	...	kit 1
Soles	...	...	boxes 11
Plaice	...	...	,, 4
Gurnet	...	...	,, 13
Dog fish	...	...	,, 2
,,	...	...	kits 2
Sardines	...	...	packages 2
Mixed fish	...	...	kit 1
Crabs	...	...	100
,,	...	...	barrel 1
Shrimps	...	...	boxes 13
,,	...	...	gals. 76
Fowls	...	...	62
Ducks	...	...	10
Rabbits	...	...	17
Apples	...	...	bushels 22
,,	...	...	barrels 6
Pears	...	...	cases 23
Oranges	...	...	1850
Grapes	...	...	packages 4
Onions	...	...	cask 1
Horse radish	...	...	barrel 1
Milk	...	...	gals 122
Dutch Cheese	...	...	4

GENERAL INSPECTION.

During the year, 7472 dwelling houses were inspected, and notices were issued for the abatement of such nuisances that were found to exist.

12,040 re-inspections of property under notices were made during the progress of the work.

806 complaints were made at the office, and received prompt attention.

SLAUGHTERHOUSES—There are 173 entries of slaughter-houses in the register, but at the present time only 102 of them are in actual regular use. Of this number there are five which are licensed annually. The premises as a whole are kept in accordance with the bye-laws and limewashed

periodically. During the year, 4,331 visits of inspection have been made.

DAIRIES, COWSHEDS, AND MILKSHOPS—This year 226 persons were registered as cowkeepers or purveyors of milk, and of this number only 17 are cowkeepers. The whole of the premises have been kept in good order, and no complaints have been made with regard to cowkeeping. 1869 visits of inspection have been made.

COMMON LODGING HOUSES—There are 19 common lodging houses in the borough, which with some few exceptions have been fairly well kept. Three new ones have been approved of and registered during the year, viz.—

9, Little Charlotte Street,
28, Kent Street, and
2, St. George's Square.

680 visits have been made, including 388 night visits.

WORKSHOPS.—3031 visits were made to the various workshops and outworker's premises, under the Factory and Workshops' Act, and 376 visits were made to shops under the Shop Hours' Act.

BAKEHOUSES.—875 visits were made to the different bakehouses, which have generally been kept in a satisfactory manner.

INFECTIOUS AND ZYMOTIC DISEASES.

During the year, 2213 cases of Infectious and Zymotic Diseases were investigated. Particulars were also taken of 294 fatal cases of consumption, and efforts were made to have the rooms occupied by the patients disinfected. Arrangements were made for the removal of 856 patients to the Infectious Diseases Hospital. 2213 rooms were disinfected by the disinfector.

DRAINAGE.

5549 suspected drains were tested or re-tested, of which 1633, or 29·4 per cent. were found defective.

Complaints under Section 41 of the Public Health Act have been made with respect to combined drains in many cases, and the drains have been opened up and repaired by the Borough Engineer's Staff.

At the request of the Education Committee, the drains of the following schools were carefully tested and reported on, viz.—

The Free Schools, Richmond Place.
St. Agatha's Schools.
St. John's Schools, Prince George's Street.
St. John's R.C. Schools, Alfred Road.
St. Swithun's R.C. Schools, Saxe-Weimar Road.
Corpus Christi R.C. Schools, Glady's Avenue.
St. Luke's Schools.
St. Jude's Schools.
The Beneficial Society's School.

Of the above the whole of St. John's School, Prince George's Street, the whole of St. John's R.C. Schools, the whole of St. Jude's, and a part of the Beneficial Society's School drains have been relaid and tested by water by your officers.

In addition to these the drains of Penhale Road Board School have been entirely relaid under our supervision.

Inspector Turner has tested the drains of 2595 new houses, and the inside fittings of 779 houses.

SALE OF FOOD AND DRUGS ACT.

During the year your Inspectors submitted 654 samples of Food and Drugs to the Public Analyst for analysis, compared with 282 for the previous year.

Of this number 78 or 11·9 per cent were certified to be adulterated. 88 samples of milk were taken in course of delivery, chiefly at the railway stations.

PROSECUTIONS AND FINES.

Public Health Act. The following proceedings have been taken, viz.—

To abate nuisances at—

44, Beresford Road	... Order for work to be done in 14 days and payment of costs, 10s., made.
11, Kingston Crescent	... do. and 11s. costs.
111, 113, 115, 117 & 119, Grosvenor Street	Withdrawn on work being carried out
47, Leopold Street	... do.
Piggery, Warren Lane	... Order made to abate in 3 days.
30, Cressy Place	... „ „ 21 „

Application under Sect. 102 for a Magistrates' order for admission to inspect 39, North Street	Order made
For keeping 28, Kent Street, as a common lodging house without being registered	Fined £1
For keeping 48, Havant Street as a common lodging house without being registered	Fined £2 and 9s. 6d. costs
For exposing a child whilst suffering from a dangerous infectious disorder in the street	Fined £1
For exposing for sale 17 rabbits which were unsound	Fined £1 6s.6d.

Sale of Food and Drugs Act. Proceedings were taken in 51 cases under the Act. In 42 cases for adulterated milk, 1 for butter, 4 for coffee, 1 for spirits, 1 for vinegar, and in 2 cases against dairymen for selling milk without having their name and address on vehicles. Four cases were dismissed, two were withdrawn, and one summons was not served, the person having left the town. Fines and costs amounting to £130 6s. 9d. were inflicted. Particulars of these will be found in the Public Analyst's Report attached.

Margarine Act. Proceedings were taken in three cases, but summons was not served in one case, defendant having decamped. Fines and costs amounting to £3 14s. were inflicted.

Nuisance Bye-Laws. Nine persons were proceeded against for non-compliance with these Bye-Laws, chiefly with respect to defective drainage, and paving of pigsties, stables, and the non-provision of manure pits. Convictions were

obtained in every case, and fines and costs amounting to £15 2s. 6d. imposed.

Building Bye-Laws. Proceedings were instituted in one case for allowing premises which had been declared unfit for habitation to be occupied. On the house being closed the information was withdrawn.

The Contagious Diseases (Animals) Act. Proceedings were taken by me against one person for failing to notify the existence of Swine Fever at Warren Lane, Milton. Defendant was fined 5s. with respect to each of seven pigs, amounting with the costs to £2 4s. 6d.

I am, Gentlemen,

Your obedient servant,

FRED L. BELL,

Chief Inspector of Nuisances.

The Contagious Diseases (Animals) Act.

INSPECTOR'S REPORT,

For the year ending 31st December, 1903.

Inspection of Cattle. The following is a list of animals which have been imported into the Borough during the year ending December 31st, 1903. The greater number arrived at the Fratton Railway Station from various markets.

Beasts	... ...	14,526
Sheep	... ...	30,373
Calves	... ...	3,396
Pigs	... ...	15,639
	Total ...	63,934

Inspection of Cattle Trucks, &c. 2,601 cattle trucks, 1,350 horse boxes, and 234 tow boats have been inspected during the year, all were found to be properly cleansed and lime-washed in accordance with the requirements of the Act.

Swine Fever. There have been three outbreaks of this disease during the year. The first occurred at the piggeries on the south side of the canal, Milton. The disease was possibly conveyed by a stock boar or by young pigs from a farm or market. The sties were surrounded by town refuse which, by shutting off the drainage caused flooding during the heavy rains and probably resulted in aggravating the disease when introduced.

The other two cases were clearly traced ; one at Milton, and the other at Eastney. The owner of pigs at Eastney lent the person at Milton a stock boar for stock purposes, and

whilst the boar was on the last mentioned premises, the owner bought 34 store pigs from a dealer at Cowplain, near Waterloo, Hants, and in a few days no less than 27 of these pigs died, and 7 others were killed by order of the Inspector under the Board of Agriculture as suffering from swine fever. At the time swine fever was raging on the premises, they returned the stock boar to its owner at Eastney, who then had 119 pigs upon his premises, these soon developed the disease, and in consequence the whole, with the exception of 7 stock sows, had to be killed.

To stamp out the disease it was necessary for me to serve Form "B," which I am empowered to do under the Act, upon the various owners in the two districts, the effect of which was to confine 400 pigs upon the various premises for months.

Many pigs have been licensed into the Borough from other districts, which have had my supervision until slaughtered. In all cases the pigs have been for food and not for stock purposes.

Rabies. The police have reported to me many suspicious cases of dogs which had been killed by request of the owners, or deemed by the police dangerous to the public, but in all cases, after an examination, Mr. F. E. Knott, M.R.C.V.S., was able to certify them to be suffering, not from rabies, but from other illnesses common to dogs.

Importation of Dogs' Order, 1901. Licenses have been forwarded to me through the Town Clerk from the Board of Agriculture, and in all cases the inquiries and supervision required have been rigorously carried out, any infringements have been duly reported by me to the Town Clerk, who forthwith reported the same to the Board of Agriculture.

The greatest difficulty I experience in effectually enforcing this Act, seems with respect to dogs brought home by officers and men of His Majesty's ships which arrive from foreign ports.

I would most respectfully suggest that the captains or commanding officers of such ships should be held responsible that all dogs on board their vessels were duly declared, on a similar form as that used for contraband, which I am given to understand is duly handed over by the commanding officers on arrival, to the Customs authorities.

The Customs would then be fully acquainted with the number of dogs on board on arrival, and if they would notify the Local Authority, I could immediately enforce the Act, and so avoid illegal disembarkations.

If this could be done, it would materially assist me in the proper performance of my duties, as I find that when illegal landing occurs, the ship is paid off, and the dogs cannot in some cases be traced.

Glanders. Several suspicious cases of this disease have been reported to me during the year, but only one case has been certified by Veterinary Surgeons, Messrs. Green and Knott, to have developed into glanders. This occurred at Landport, and the horse was killed and buried in accordance with the Act. Compensation was paid to the owner, and the whole of the premises thoroughly disinfected under my supervision.

Proceedings have been instituted against one person for not reporting swine fever existing upon the premises, and a fine imposed to the total amount of 35s. and 9s. 6d. costs (5s. for each pig).

I should like to take this opportunity of thanking the Chief Constable and his staff for the assistance they have rendered me during the year in enabling me to effectually carry out the various orders.

I am, Gentlemen, your obedient servant,

G. W. MONKCOM,

Inspector under the Contagious Diseases (Animals) Act.

Public Analyst's Report

For the Year ending Dec. 31st, 1903.

To the Chairman and Members of the Health Committee, Portsmouth.

GENTLEMEN,

I have the honour to present you with my report for the year ending December 31st, 1903.

During the year 654 samples were submitted for analysis. The following tables show the nature and number respectively of the samples submitted with the number reported as genuine and the number adulterated, also the nature and extent of the adulteration in each case.

The final table contrasts the rate of adulteration during the past 3 years with that in England and Wales.

Total number of samples (1903) :—

Article.	No. Examined	No. Genuine	Adulterated	Percentage adulterated
Milk	393	339	54	13·7
Butter	117	112	5	4·3
Margarine	2	2	—	—
Spirits	42	37	5	11·9
Coffee	19	12	7	36·8
Cheese	32	31	1	3·1
Tea	12	12	—	—
Cream	1	1	—	—
Pepper	3	3	—	—
Bread	4	4	—	—
Flour	8	8	—	—
Drugs	12	11	1	8·3
Vinegar	7	4	3	42·8
Lard	2	2	—	—
	654	578	76	11·6

Adulterated samples :—

Sample	Nature and extent of Adulteration.	Result, Fines, &c.
Milk ...	50 p.c. deficient in Milk fat ...	Fined £10 and 15/6 costs
Do. ...	6 do. ...	Fined £5 and 13/6 costs
Do. ...	20 do. ...	Fined £5 and 15/6 costs
Do. ...	21 do. ...	Sold as skimmed Milk
Do. ...	3 do. ...	No prosecution
Do. ...	3 do. ...	do.
Do. ...	13 do. ...	Fined £5 and 13/- costs
Do. ...	6 do. ...	Withdrawn
Do. ...	7 do. ...	Dismissed
Do. ...	3 do. ...	No prosecution
Do. ...	10 do. ...	Fined £2 and 13/- costs
Do. ...	3 do. ...	No prosecution
Whisky ...	30·8 per cent. u.p. ...	Fined £3 and 15/- costs
Do. ...	27 do. ...	No prosecution
Do. ...	30 do. ...	do.
Coffee ...	57 p.c. of Chicory ...	do.
Milk ...	6 p.c. deficient in Milk fat ...	do.
Do. ...	3 do. ...	do.
Do. ...	3 do. and 4 p.c. added water ...	Fined £1 and £1 3s. 9d. costs
Cheese ...	26 p.c. of fat other than Milk fat	Fined £1
Milk ...	6 p.c. deficient in Milk fat ...	Dismissed
Do. ...	38 do. ...	Fined £1 10s. and 14/- costs
Butter ...	12 p.c. excess of water ...	Fined £1
Milk ...	52 p.c. deficient in Milk fat ...	No prosecution
Do. ...	10 do. ...	Fined £5
Do. ...	16 do. ...	do.
Do. ...	20 do. ...	Fined £10
Camphorated Oil	2 p.c. deficient in Camphor ...	No prosecution
Butter ...	100 p.c. Margarine ...	Summons not served ; seller
Milk ...	10 p.c. deficient in Milk fat ...	Fined £1 10s. [absconded
Do. ...	18 do. ...	Fined 15s.
Do. ...	10 do. ...	Fined £2 16s. 6d.
Do. ...	10 do. ...	Fined £3 15s.
Do. ...	6 do. ...	Fined £1 19s. 6d.
Do. ...	13 do. ...	Fined £3 9s. 6d.
Do. ...	45 do. ...	Fined £4 8s. 6d.
Do. ...	10 do. ...	Fined £2
Do. ...	10 do. ...	Fined £3
Do. ...	8 do. ...	Fined £2 15s. 6d.
Coffee ...	25 p.c. Chicory; sold as an admixture ...	No prosecution
Milk ...	53 p.c. deficient in Milk fat ...	Withdrawn
Rum ...	29 u.p.; sold as diluted, 5 p.c. added water ...	No prosecution
Milk ...	50 p.c. deficiency in fat and 40 p.c. added water ...	do.
Do. ...	23 p.c. added water ...	Fined £1
Do. ...	56 p.c. deficient in Milk fat ...	Fined £2 15s.
Do. ...	16 do. ...	Fined £3 and 8s. 6d. costs
Do. ...	5 p.c. added water ...	Fined 15s.
Do. ...	50 p.c. deficient in fat ...	Fined £3 and 8s. 6d. costs
Butter ...	90 p.c. Margarine ...	Summons not served
Milk ...	30 p.c. deficient in fat ...	Dismissed
Do. ...	10 do. ...	Fined £2 15s.
Coffee ...	75 p.c. Chicory ...	Dismissed
Do. ...	35 p.c. Chicory, sold as an admixture ...	

Adulterated samples (contd.) :—

Sample	Nature and extent of Adulteration	Result, Fines, &c.
Milk ...	26 p.c. deficient in fat ...	No prosecution
Malt Vinegar ...	75 p.c. distilled vinegar ...	do.
Do. ...	do. ...	do.
Do. ...	33 p.c. added water ...	Fined 15s.
Coffee ...	54 p.c. Chicory ...	Fined £1
Do. ...	48 do. ...	Fined £1
Do. ...	33 do. ...	Fined £1
Milk ...	20 p.c. deficient in fat ...	Fined £1 and 15s. costs.
Butter ...	100 p.c. Margarine ...	Fined £2 and 14s. costs, under
Do ...	do. ...	Margarine Act Test sample
Milk ...	33 p.c. deficient in fat ...	Fined £2 19s. 6d.
Do. ...	10 do. ...	Fined £2
Do. ...	7 p.c. added water and 18 p.c. deficient in fat ...	Fined £1 10s. 0d.
Do. ...	18 p.c. added water ...	Fined
Do. ...	23 do. ...	Fined £5 and 16s. costs
Do. ...	23 do. ...	Fined £1 and 10/6 costs
Do. ...	18 do. ...	Fined £1
Do. ...	18 do. ...	Fined £1
Do. ...	5 p.c. deficient in fat ...	Cautioned
Do. ...	13 do. ...	Fined £2
Do. ...	18 added water ...	Fined £3
Whisky ...	27 u.p. 3·4 p.c. added water ...	No prosecution
Milk ...	13 p.c. deficient in fat ...	Fined £2

The fines, including costs, amounted to £126 5s. 9d.

Table shewing number of samples, and the number found adulterated during the last three years in Portsmouth.

	Year	Samples Examined	No. Adulterated	Percentage Adulterated
PORTSMOUTH ...	1901	299	42	14·05
Do. ...	1902	300	52	17·33
Do. ...	1903	654	76	11·5
England and Wales ...	1902	72,321	6,281	8·7

The above tables indicate that there are two substances which are the subject of serious adulteration, viz., milk and coffee.

With regard to the 294 samples of milk examined by myself, I should like to offer a few critical remarks.

I have separated these samples into five divisions—adulterated samples 26 in number, those of poor quality 13 in number, those which are low in fat 61 in number, those which are sold as skimmed milk 5 in number, and the remainder of undoubtedly genuine character 189 in number.

The following table shows the mean analytical figures of the samples in each category.

	No. of Samples Examined	Fat	Specific Gravity
Samples of poor quality ...	13	2·96	1033·2
„ low in fat ...	61	3·34	1032·7
„ undoubtedly genuine	189	3·99	1031·8

With regard to the first series in this table, these are adulterated, but they are so near the legal limit for genuine milk, that the adulteration is too small for certification. With regard to the second series (those low in fat), some of these are genuine and others are the result of sophistication. It is not possible in the case of these samples to draw the line between those which are genuine and those which have been tampered with.

The third series represents the composition of milk of good average quality and approaches very closely to the figures obtained by Vieth from the analysis of 128,000 samples of milk of average quality.

It will thus be seen that although the certified adulteration in these 294 samples only amounted to 8·8 per cent, the number of samples satisfying the standard indicated above was only 65·4 per cent ; the remainder 25·8 per cent. represents the milk derived from poor herds, or the result of careful sophistication.

With regard to Coffee, of the 15 samples examined six were adulterated, with amount of chicory varying from 25 per cent. to 80 per cent. This is a very appalling result, though not an adulteration frought with the same serious results to the

consumer as that of milk, it is nevertheless an objectionable fraud.

The amount of fines inflicted for this form of adulteration is too small to act as a deterrent, but the percentage adulterated (viz. 40 per cent.), will doubtless be decreased by the increased number of samples now taken.

The other substances examined did not afford any evidence of serious adulteration, the analytical figures, however, obtained in the examination of butter are of some interest. Of the 85 samples examined by myself only three were adulterated. Of the remaining 82 samples there were only 4 of which could be regarded as of poor quality owing to the high figure obtained by the valenta reaction. This figure was 50 degrees, taking the mean of the four figures. The average valenta figure for the remaining 78 samples was as low as 37·6 degrees. So that it will be seen that the supply of butter is very satisfactory when compared with that of milk.

There are two points in the administration of the Food and Drugs Act to which I have called the attention of the Committee during the past year, viz., the inadequacy of fines and the collection of samples. It may not, therefore, be out of place to quote what is said on this subject in the recent annual report of the Local Government Board. The report runs as follows :—

" During the year we drew the attention of the Secretary of State for the Home Department to the fact that we have, from time to time, received complaints from local authorities respecting the inadequacy of the penalties imposed by Justices for breaches of the provisions of the Sale of Food and Drugs Act, and he subsequently addressed a circular letter to Clerks to the Justices of the Petty Sessional Divisions throughout the country asking that the matter might be brought to the notice of the Justices in order that they might give special consideration to the question whether the penalties imposed in the cases coming before them were such as would be likely

to deter offenders from repeating, and other persons from committing the offence."

And in reference to the second point, the following :—

"The value of having an experienced Inspector to take samples for analysis is again shewn this year in the case of Islington, where many samples are procured by an Inspector who is allowed by the Borough Council much more time than the remaining sampling officers have for the work. The reports shew that of the 385 samples taken by the ordinary officers 23 or 6 per cent. were adulterated, while of 547 taken by the special officer 111 or 20·3 per cent. were condemned."

I have the honour to be,

Gentlemen,

Your obedient servant,

EDWARD RUSSELL, B.Sc., F.I.C.,

Public Analyst.

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