[Report 1912] / Medical Officer of Health, Portsmouth Borough.

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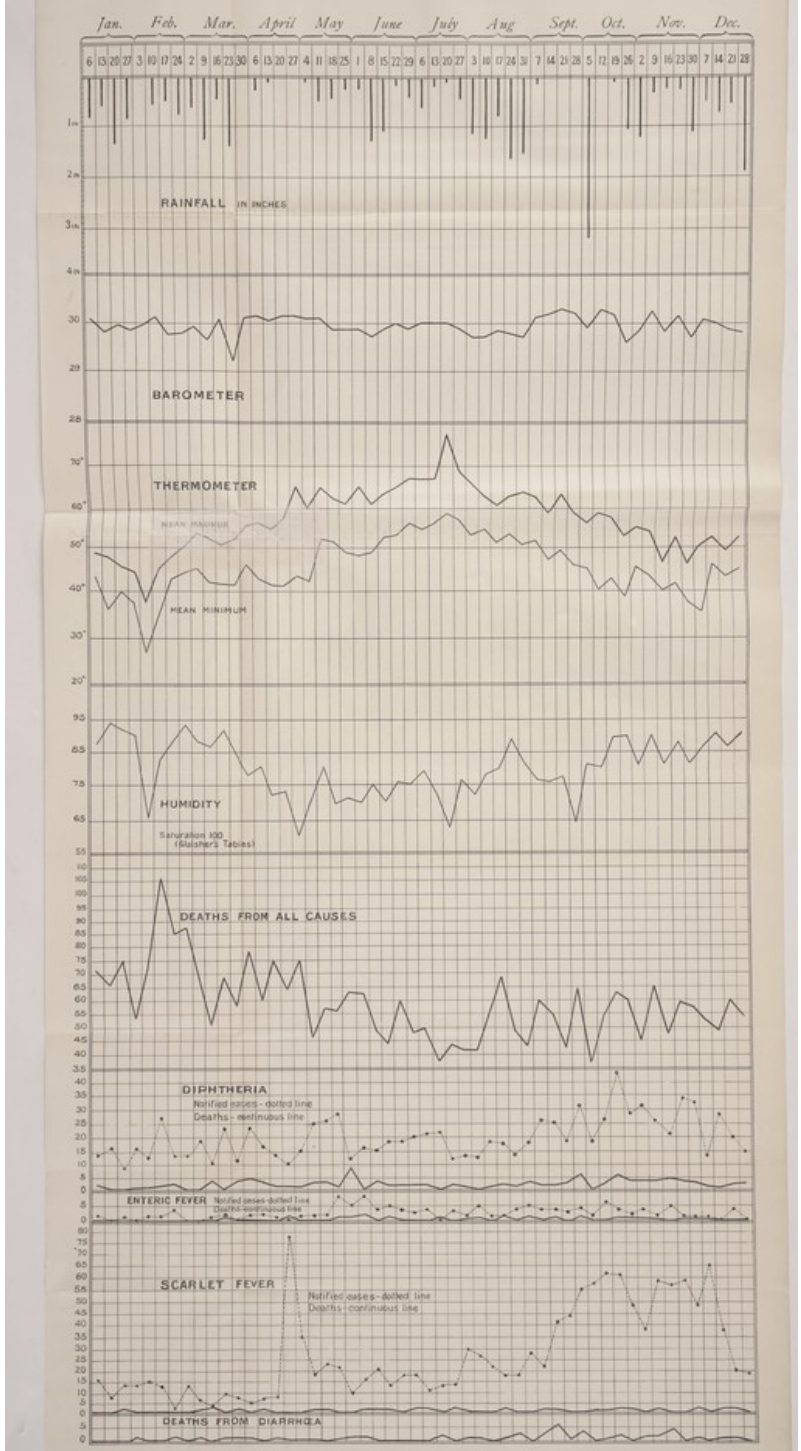
MAP SHOWING INCIDENCE OF CERTAIN INFECTIOUS DISEASES IN PORTSMOUTH DURING THE YEAR ENDING DECEMBER 31st, 1912.

BOROUGH OF PORTSMOUTH.

METEOROLOGICAL & DISEASE CHART FOR THE YEAR 1912.



"SALUS POPULI SUPREMA LEX."

REPORT

ON THE

Health of Portsmouth

For the Year 1912

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,
Medical Adviser to the Education Committee,

INCLUDING

The Reports of the Medical Superintendent, Milton Hospital, and the Public Analyst.

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Health Committee, 1911-12.

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VICE-CHAIRMAN:

COUNCILLOR F. T. SHORT.

ALDERMAN SIR GEORGE E. COUZENS, K.L.H., O.R.O.R., J.P.

ALDERMAN T. E. FULLJAMES.

ALDERMAN J. MULVANY, J.P.

COUNCILLORS:

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T. BREWIS

M. GILL, J.P.

R. WINDIBANK

H. R. PINK, J.P.

W. A. BILLING

J. DUMMER, J.P.

H. PALIN

W. J. BONE

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Medical Officers of Health's Dept.

Medical Officer of Health :
A. MEARNS FRASER, M.D., D.P.H.

Assistant Medical Officer of Health :
JAMES FAIRLEY, M.D., D.P.H.

Chief Inspector of Nuisances :
F. L. BELL, Cert. San. Inst.

Chief Clerk and Meteorological Observer : C. W. HEARN.

Inspector of Diseases of Animals Act :
G. W. MONKCOM.

Inspector of Workshops and Inspector of Nuisances :
H. G. GRAY, Cert. San. Inst.

Inspector of Drains and Inspector of Nuisances :
W. H. TURNER, Certs. San. Inst. and Adv. Bdg. Constn.

Inspector under the Sale of Food and Drugs Act and Inspector of Nuisances :
J. S. HOBBS, Cert. San. Inst.

Inspectors of Nuisances :
H. J. LOVELOCK, Cert. San. Inst.
F. R. LOVETT, Cert. San. Inst.
H. HOLMAN, Cert. San. Inst.
C. W. HALL, Cert. San. Inst., Hons. Medallist City & Guilds, R.P.C. Lond., Adv. Bdg. Constn.
E. J. G. SINNETT, Cert. San. Inst.
A. F. PARDO, Cert. San. Inst., R.P.C. Lond., Hons. City & Guilds, Lond.

Female Sanitary Inspector :
MISS M. MONK, L.O.S., C.M.B., Cert. San. Inst.

Health Visitors :
MISS F. PRESTON, C.M.B., I.S.T.M., Cert. San. Inst.
MISS E. WEAVER, Cert. San. Inst.

First Asst. Clerk : G. W. WILKINS.
Asst. Clerks : F. A. CROFT and W. TUCK.

Port Sanitary Inspector : A. YATES.

Disinfector : A. AYLMER.

Municipal Tuberculosis Dispensary.

Chief Medical Officer :
MISS HILDA CLARK, M.B.

Assistant Medical Officer :
JAMES FAIRLEY, M.D., D.P.H.

Nurses :
MISS E. RICKETTS, C.M.B., MISS N. ALLEN, C.M.B.,
MISS E. ETHERINGTON, C.M.B.

Langstone Hospital.

Sister-in-Charge .. MISS STARBUCK.

Infectious Diseases Hospital.

Medical Superintendent :
J. McGREGOR, L.R.C.P., L.R.C.S.

Matron : MISS F. PETCHEY.

PUBLIC ANALYST : F. W. F. ARNAUD, F.I.C.

Medical Officer's Report, 1912.

To the Chairman and Members of the Health Committee.

GENTLEMEN,

I have the honour to submit for your consideration my Annual Report on the Health of Portsmouth for the past year. This is the seventeenth report I have presented, and it will be satisfactory to you to find that Portsmouth occupies so satisfactory a position in comparison with other large towns, the death-rate, 12.85, being the lowest of any town of its size in the Kingdom.

The principal work of the year has been in connection with the prevention and cure of tuberculosis, and there is no doubt that through the assistance of the funds available under the National Insurance Act and the grants promised by the Treasury, still greater efforts will be made in the near future. The work carried on at the Municipal Dispensary has attracted considerable attention throughout the country, and has been inspected by representatives of a large number of other sanitary authorities.

During the early part of the year I had the honour of being one of the two Medical Officers of Health appointed to serve on the Committee to advise the Government on their general policy in respect of the problem of tuberculosis in the United Kingdom. The interim and final Reports of this Committee have been issued, and the recommendations made there have been generally adopted by the Government Departments and Local Sanitary Authorities.

An important new departure during the year has been the prohibition under penalty of the occupation of new dwelling houses until these have been certified by the Borough Engineer and Medical Officer of Health to be in every respect fit for human habitation.

Progress has been made with the Portsea Housing Improvement Scheme, and it is hoped the coming year will see its completion.

Steps are now being taken for increasing the physique and general condition of children attending the public elementary schools, by the provision of open-air schools; this is the natural sequence of the increased attention given to the health of school children, and must prove very beneficial to delicate children and those suffering from anaemia, or with a tendency to chest and lung trouble.

The work of the Health Department is increasing with leaps and bounds, and the Sanitary Authority are doing more than has ever been attempted before in respect to the prevention of disease and the preservation of the health of the inhabitants of the Borough.

I have gratefully to acknowledge the courteous treatment always extended to me by the members of the Health Committee, and also the able assistance rendered by the various members of the Health Department Staff.

I have the honour to be, Gentlemen,

Your obedient servant,

A. MEARNS FRASER,

Medical Officer of Health.

Summary for 1912.

POPULATION (Estimated to middle of 1912)		..		236,732
TOTAL BIRTHS	.. ..	5,580	Rate per 1000 ..	23.6
,, DEATHS	.. ..	3,044	,, ,, ..	12.8
			Corrected death-rate	12.7
DEATHS—Under 1 year	..	462	Deaths under 1 year to 1000 Births	82.8
,, 65 years and upwards	..	933	Percentage of Deaths to total Deaths	30.6
,, Principal Zymotic Diseases		379	Death-rate per 1000	1.6
,, Small-pox ..	..	0	,, ,,	0
,, Measles ..	..	95	,, ,,	0.40
,, Scarlet Fever	..	29	,, ,,	0.12
,, Diphtheria ..	..	124	,, ,,	0.52
,, Whooping Cough	..	52	,, ,,	0.21
,, Fever ..	..	22	,, ,,	0.09
,, Diarrhoea (under 2)	..	57	,, ,,	0.24
,, Violence ..	..	88	,, ,,	0.37
,, Inquest Cases	..	225	Percentage to total Deaths	7.38
,, Public Institutions	..	811	,, ,,	26.63
,, Uncertified Causes	..	23	,, ,,	0.72
Average Death-rate for 10 years, 1902—1911		.. ..		14.8
Mean Temperature	.. ..	.. ..		51.4
Total Rainfall, in inches	.. ..	.. ..		31.96

Statistics.

POPULATION.—The population estimated to the middle of 1911 was 236,732. I am now able to give further statistics relating to the CENSUS in 1911. The population of the Borough was found to be 231,141 (115,160 MALES and 115,981 FEMALES), or an increase of 22.18 per cent. on the census population of 1901.

The population of the various Wards in the Borough at the Census was as follows :—

No.	WARD	No. of families or separate occupiers	POPULATION			Institutions, Large Establishments, Vessels, &c.	
			Total	Males	Females	No.	Population
1	St. Thomas	2706	16327	8929	7398	130	5749
2	Portsea	2999	22119	15953	6526	134	9309
3	Mile End	2804	11895	5841	6054	25	107
4	North End	7519	31909	15506	16403	20	1565
5	Buckland	5421	21357	10066	11291	1	121
6	Kingston	3745	18350	8819	9531	9	3501
7	Highland	6594	25726	11930	13796	2	11
8	St. Simon	3949	17129	6862	10267	28	1586
9	Havelock	2921	11515	4870	6645	4	299
10	St. Paul	2857	11291	5118	6173	6	133
11	Town Hall	2064	8792	4274	4518	4	180
12	Fratton	2682	10645	5190	5455	5	129
13	St. Mary's	2570	11326	5939	5387	5	909
14	Charles Dickens ..	2874	12760	6223	6537	13	363
		51705	231141	115160	115981	386	23962

Population in Military and Naval Barracks, etc.

There are 18 separate Military and Naval Barracks in the Borough. The population was as follows :—

Officers and Men	Other Inmates (Families, Servants, etc.)		Total
	Males	Females	
5836	284	541	6661

Public Institutions, Nursing Homes, etc.

Special Inmates (Patients, Paupers, Lunatics, etc.)			Officials and their Families			Total
Persons	Males	Females	Persons	Males	Females	Persons
3776	1910	1866	503	97	406	4279

The number of persons enumerated in barns, sheds, caravans, etc., was 102—57 males and 45 females.

BIRTHS.—The total number of Births registered in the Borough was 5,605, which is equal to a birth-rate of 23.75. This is by far the lowest birth-rate ever registered in this Borough, and is 1.24 per 1000 lower than that of last year. The average birth-rate for the past ten years has been 26.90.

Births were registered in the different quarters of the year as follows :—

First Quarter, ending	March 30th	..	1443	births
Second ,, ,,	June 29th	..	1464	,,
Third ,, ,,	Sept. 28th	..	1403	,,
Fourth ,, ,,	Dec. 28th	..	1295	,,

MARRIAGES.—The total number of Marriages was 2,083. This is the largest number that has been registered in one year.

DEATHS.—3,044 deaths were registered during the year. The death-rate was 12.85 per 1,000 living, and this is the lowest death-rate ever recorded in the Borough, the average for the previous ten years being 14.82. The death-rate, corrected by the Registrar General's factor for age and sex, is 12.70 per 1,000. Not only is this the lowest death-rate recorded in Portsmouth, but there is no town so large as Portsmouth in England and Wales in which the death-rate is so low. This is a satisfactory record to be able to give. The low death-rate is largely accounted for by the small number of deaths (45) from diarrhoea amongst children under one year of age, and for this, doubtless, the cold and wet summer and autumn of 1912 was to a large extent responsible. On the other hand, the same meteorological conditions were a contributory cause to the increase in the number of deaths from bronchitis, pneumonia, phthisis and heart disease. The principal causes of death, as will be seen from Table V, were bronchitis 259, pneumonia 163, cancer 213, heart disease 354, and pulmonary tuberculosis 253.

It will be noted that this year a new method of classification of deaths has been adopted. This has been suggested by the Registrar General for use in the Reports of Medical Officers of Heath, and if generally adopted will lead to uniformity in them and render their statistics more easily comparable.

TABLE I.

Table showing the Population, Marriages, Inhabited Houses, Births and Deaths, for the year 1912, 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
1912	236,732	47,673	2,083	5,605	3,044	462	786
1911	232,221	47,033	2,055	5,787	3,255	730	1013
1910	227,821	46,457	1,917	5,801	2,995	603	890
1909	223,436	45,475	1,846	5,820	3,045	556	862
1908	219,095	44,734	1,930	6,110	2,957	607	825
1907	214,797	43,897	2,015	5,796	3,332	714	1,089
1906	210,546	43,036	2,005	5,870	3,049	761	1,006
1905	206,336	43,059	1,939	5,641	3,345	755	1,179
1904	202,171	41,053	1,969	5,579	3,333	791	1,126
1903	198,049	39,874	1,882	5,431	2,867	620	889
1902	193,969	38,967	1,772	5,284	3,269	800	1,153
Average 10 years 1902-11	212,844	43,358	1,933	5,711	3,144	693	1,003

*Revised in accordance with Census Returns, 1911.

NOTES.

1.—Population at Census, 1911 : { Males 115,160 ... } 231,141
{ Females 115,981 ... }

2.—Area in Acres (land and inland water) 6,100

3.—Average number of Persons in each house at Census (1911) 4.9

4.—Average number of Persons per Acre at Census (1911) ... 38

TABLE II.

Showing **Births and Deaths** during the four quarters ending 28th December, 1912.

Quarter	Births	Birth Rate	Deaths	Death Rate	The Deaths registered include													
					Deaths of		Deaths from										Inquest Cases	Deaths in Public Institutions	Uncertified Causes of Deaths
					Infants under 1 year of age	Persons aged 65 years and upwards	Total Zymotic Diseases	Small-pox	Measles	Scarlet-fever	Diph-theria	Whooping Cough	Fever	Diarrhoea	Violence				
1st Quarter	1443	24·4	943	16·0	134	326	108	—	46	3	22	26	1	10	31		74	232	4
2nd „	1464	24·8	757	12·8	120	202	123	—	46	7	35	18	6	11	18		43	180	9
3rd „	1403	23·8	645	10·9	95	137	70	—	3	8	25	5	8	21	18		49	179	4
4th „	1295	21.6	699	11·8	113	216	78	—	—	11	42	3	7	15	22		59	219	6
TOTAL	5605	23·75	3044	12·8	462	931	379	—	95	29	124	52	22	57	89		225	810	23

TABLE III.

*Table showing the Annual Birth-rate, Rate of Mortality, and Death-rates among children for the year 1912, and ten preceding years.

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	Proportion of Deaths of Children under 1 year per 1000 Registered Births	Deaths of Children under 5 years: Percentage to total Deaths
1912	23·75	12·85	1·6	15·1	82	25·8
1911	24·99	14·06	2·01	22·4	126	31·1
1910	25·41	13·14	1·29	20·2	104	29·6
1909	26·40	13·62	1·35	18·2	96	28·3
1908	27·88	13·49	0·91	20·5	99	28·9
1907	26·93	15·51	1·77	21·4	123	32·6
1906	27·87	14·48	1·79	24·9	130	33·0
1905	27·34	16·21	2·58	22·5	134	35·2
1904	27·59	16·46	2·06	23·7	142	33·5
1903	27·42	14·47	1·46	21·6	112	31·0
1902	27·88	16·85	2·32	24·4	151	35·2
Average of 10 years, 1902-11	26·90	14·82	1·75	21·9	121	31·8

* Revised in accordance with the Census Returns of 1911.

TABLE IV.—Showing the Population, Birth-rates, Recorded Death-rates, Zymotic Rates, and Deaths under 1 year to 1000 Births in the 20 Large Towns for the year 1912.

Name of Town	Population estimated to middle of 1912 (1)	Per 1000 living: Birth-rate (2)	Per 1000 living: Recorded Death-rate (3)	ZYMOTIC DEATH-RATE: Small-pox (5)	Measles (6)	Scarlet Fever (7)	Diph-theria (8)	Whooping Cough (9)	Enteric Fever (10)	Diarrhœa &Enteritis (und. 2 yrs) (11)	Total of Cols. 5-11 (12)	Deaths of Children under 1 year of age to 1000 Births (13)
1 WILLESDEN ..	159,432	24·6	10·1	..	0·21	0·00	0·06	0·17	0·02	0·01	0·47	84
2 CROYDON ..	174,257	22·0	10·6	..	0·18	0·00	0·14	0·06	0·04	0·26	0·48	75
3 PORTSMOUTH ..	**236,732**	**23·7**	**12·85**	..	**0·40**	**0·12**	**0·52**	**0·22**	**0·09**	**0·23**	**1·58**	**82**
4 BRISTOL ..	359,400	21·4	13·3	0·01	0·43	0·02	0·13	0·19	0·01	0·15	0·94	102
5 BOLTON ..	182,534	22·4	13·4	..	0·19	0·05	0·11	0·21	0·05	0·19	0·70	98
6 LEICESTER ..	229,291	22·1	13·4	..	0·42	0·05	0·09	0·21	0·02	0·19	0·98	111
7 LONDON ..	4,519,754	24·8	13·5	0·00	0·39	0·03	0·10	0·21	0·03	0·03	0·79	90
8 CARDIFF ..	184,636	25·0	13·7	..	1·09	0·04	0·17	0·31	0·08	0·27	1·96	109
9 BIRMINGHAM ..	850,948	36·1	14·1	..	0·67	0·18	0·12	0·39	0·03	0·26	1·65	112
10 WEST HAM ..	291,900	29·4	14·1	..	0·84	0·06	0·12	0·43	0·05	0·34	1·84	104
11 LEEDS ..	447,725	23·2	14·2	..	0·36	0·09	0·20	0·12	0·04	0·22	1·03	101
12 SHEFFIELD ..	460,649	27·6	14·2	..	0·39	0·07	0·10	0·41	0·09	0·29	1·35	106
13 NEWCASTLE ..	269,193	26·9	14·2	..	0·61	0·13	0·11	0·14	0·06	0·18	1·23	102
14 BRADFORD ..	289,618	19·3	14·3	..	0·17	0·04	0·19	0·05	0·17	0·08	0·70	99
15 NOTTINGHAM ..	262,563	23·7	14·4	..	0·62	0·09	0·10	0·27	0·05	0·28	1·41	117
16 HULL ..	282,987	27·7	14·4	..	0·52	0·00	0·08	0·09	0·12	0·22	1·03	101
17 STOKE-ON-TRENT	237,153	31·3	15·8	..	0·23	0·12	0·24	0·30	0·10	0·05	1·04	128
18 MANCHESTER ..	723,550	25·4	16·0	0·00	0·68	0·07	0·13	0·41	0·06	0·35	1·70	121
19 SALFORD ..	232,726	26·4	16·5	..	1·05	0·04	0·14	0·55	0·08	0·39	2·25	128
20 LIVERPOOL ..	752,055	29·6	18·1	..	1·15	0·12	0·14	0·35	0·03	0·60	2·39	125

TABLE V.

Deaths Registered at several groups of ages from the different classes of Diseases during the year ending December 28th, 1912.

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	Landport North	Landport Central	Mid-Southsea	outhsea	
TOTALS	462	324	182	92	165	224	300	179	183	456	374	103	76	213	823	825	863	244	3044
CLASS I.																			
General Diseases.																			
Enteric Fever	..	2	6	3	3	3	3	1	1	..	..	..	3	..	4	7	7	1	22
Measles	22	68	5	..	..	..	..	..	..	..	..	..	2	5	11	48	27	2	95
Scarlet Fever	1	13	14	1	..	..	..	..	..	..	..	..	2	3	7	9	6	2	29
Whooping Cough	17	30	3	2	..	..	..	..	..	..	..	..	..	6	15	23	5	3	52
Diphtheria	1	49	73	..	..	..	1	..	..	..	..	..	1	4	36	32	46	5	124
Influenza	2	..	..	..	3	4	1	1	..	8	3	..	2	2	2	5	7	4	22
Erysipelas	2	1	..	..	..	..	1	1	..	1	1	..	..	1	1	1	3	1	7
Pyaemia, Septicaemia	1	2	..	..	..	..	..	..	1	1	1	..	..	1	..	1	3	1	6
Pulmonary Tuberculosis	1	9	12	42	56	59	49	9	10	6	..	..	4	15	82	74	58	20	253
Acute Phthisis	2	2	..	1	2	2	2	1	1	1	..	..	..	1	3	6	4	..	14
Tuberculosis Meningitis	6	14	5	3	1	..	1	..	..	..	..	..	1	1	9	11	7	1	30
Tuberculosis of Peritoneum and Intestines, Tabes Mesenterica etc.	7	5	7	..	1	3	4	3	..	..	1	..	1	2	8	8	11	1	31
Tuberculosis of Spinal Column	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	1	1	..	2
Tuberculosis of Joints	..	1	1	..	2	1	..	..	..	..	..	..	..	..	4	..	1	..	5
Tuberculosis of other Organs	1	..	1	1	1	..	2	..	1	..	..	..	..	..	2	2	2	1	7
Disseminated Tuberculosis	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Rickets and other forms of Bone Softening	..	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	2
Syphilis	5	..	..	..	..	..	..	1	1	..	..	..	..	1	2	1	3	..	7
Cancer of the Buccal Cavity	..	..	..	..	..	2	4	6	4	5	6	..	1	..	8	10	8	..	27
,, ,, stomach, liver, &c	..	..	..	..	4	4	8	11	9	25	12	..	1	3	21	16	23	9	73
,, ,, peritoneum, intestines and rectum	..	..	..	..	2	3	6	6	10	11	10	..	..	2	12	10	15	9	48
,, ,, female genital Ogs	..	..	..	..	..	3	8	4	1	3	3	..	..	2	9	2	6	3	22
,, ,, breast	..	..	..	..	..	2	4	1	3	5	3	..	..	..	6	4	6	2	18

Cancer of the skin	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	1	1	..	2
,, ,, other or unspecified organs	..	..	..	..	..	1	7	1	7	4	2	1	..	3	3	7	8	2	23
Other Tumours, &c. ..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	1	1	..	2
Rheumatic Fever	..	..	1	2	4	..	1	..	..	..	..	..	..	..	3	2	2	1	8
Chronic Rheumatism & Gout	..	1	2	..	..	3	3	..	1	5	1	..	..	1	3	6	5	1	16
Scurvy	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1
Diabetes	..	..	..	..	..	4	2	5	1	5	..	..	..	2	6	2	5	2	17
Exophthalmic Goitre ..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	1
Addison's Disease	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Leucocythaemia	..	..	..	..	..	..	1	..	1	..	..	..	..	..	1	..	..	1	2
Anaemia, Chlorosis	1	1	..	1	2	2	1	1	..	..	..	..	..	..	3	3	2	1	9
Other General Diseases ..	2	..	..	..	..	..	..	..	1	..	..	..	..	1	1	1	..	..	3
Alcoholism	..	..	..	..	1	3	1	..	..	..	..	..	..	1	2	..	..	2	5
Chronic Lead Poisoning ..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	1
CLASS II.																			
Diseases of the Nervous System and of the Organs of Special Sense.																			
Encephalitis	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	2	2
Cerebro-spinal Fever, &c. ..	3	7	3	..	1	1	..	..	..	3	..	..	1	..	7	5	3	2	18
Locomotor Ataxy	..	..	..	..	1	..	..	1	..	..	..	..	..	..	2	..	..	..	2
Other Diseases of the Spinal Chord	..	2	1	..	..	1	3	..	..	..	..	..	..	1	3	3	..	..	7
Cerebral Haemorrhage, Apoplexy, &c.	1	..	1	..	3	9	17	21	20	60	32	7	4	10	47	38	51	21	171
Softening of Brain	..	..	..	..	..	1	3	2	1	4	3	..	1	..	2	7	3	1	14
Paralysis, without specified cause	..	..	..	..	..	1	3	..	4	3	2	..	..	1	2	2	4	4	13
General Paralysis of the Insane	..	..	..	..	5	4	6	2	..	..	..	..	..	2	5	6	3	1	17
Other forms of mental alienation	..	..	..	1	..	..	..	1	..	1	..	..	..	..	..	2	1	..	3
Epilepsy	..	..	..	1	3	1	3	1	1	3	1	..	..	1	6	5	2	..	14
Convulsions (5 years or over)	..	..	..	..	..	..	1	..	..	..	..	1	..	..	2	..	..	..	2
Infantile Convulsions (under 5)	19	8	..	..	..	..	..	..	..	..	..	..	2	3	4	13	5	..	27
Chorea	..	1	..	..	..	1	..	..	..	..	..	..	..	1	1	..	..	..	2
Hysteria, Neuralgia Neuritis	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	2	2
Mastoid Disease, &c. ..	..	..	3	..	1	..	..	..	..	..	..	..	..	1	..	2	..	1	4

TABLE V.—*Continued*

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	Landport North	Landport Central	Mid-Southsea	Southsea	
CLASS III																			
Diseases of the Circulatory System.																			
Pericarditis	..	..	..	..	..	1	..	..	1	1	2	..	..	..	1	..	4	..	5
Acute Endocarditis	..	..	3	1	4	2	2	1	3	2	3	..	..	3	9	6	2	1	21
Valvular Disease	1	2	7	8	19	34	49	33	30	93	40	9	6	14	99	73	105	28	325
Angina Pectoris	..	..	..	..	..	..	..	..	1	2	..	..	..	..	..	..	1	2	3
Aneurysm	..	..	..	..	..	3	6	3	1	1	3	..	..	4	6	4	3	..	17
Cerebral Embolism and Thrombosis	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	1
Diseases of the Veins ..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	2	..	2
CLASS IV.																			
Diseases of the Respiratory System.																			
Diseases of the Larynx ..	..	2	3	..	..	..	..	..	..	..	..	..	..	1	1	..	3	..	5
Diseases of the Thyroid Body	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	1
Bronchitis	29	23	3	..	6	13	14	18	30	66	47	10	9	25	62	76	67	20	259
Bronchiectasis, Bronchial Catarrah, &c.	1	2	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	..	3
Broncho-pneumonia ..	20	29	9	..	..	1	2	1	2	5	4	1	1	8	30	17	15	3	74
Lobar Pneumonia	6	12	5	1	11	16	11	5	5	8	9	..	6	10	22	18	25	8	89
Pleurisy	..	..	1	..	..	..	3	..	1	..	1	..	..	..	..	2	3	1	6
Pulmonary Congestion and Apoplexy, &c.	..	..	..	..	..	1	2	..	..	3	..	1	..	..	2	1	1	3	7
Asthma	..	..	..	..	..	..	4	1	..	..	2	..	..	1	1	2	3	..	7
Fibroid Disease of the Lung ..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	1	1	..	..	2

CLASS V.																		
Diseases of the Digestive System.																		
Diseases of Pharynx, Tonsillitis	1	2	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	3
Perforating Ulcer of Stomach	..	..	..	1	1	1	3	..	1	..	..	..	..	1	1	2	3	..	7
Inflamation of Stomach ..	3	..	..	..	..	1	2	1	2	1	..	..	2	..	3	4	1	..	10
Diarrhoea and Enteritis (under 2 years)	45	12	..	..	..	..	..	..	..	..	..	..	3	9	13	16	10	6	57
Diarrhoea and Enteritis (over 2 years)	..	1	2	..	..	2	2	..	2	4	..	..	..	1	5	5	2	..	13
Appendicitis	1	1	1	3	3	..	1	..	1	..	..	..	..	1	4	4	2	..	11
Hernia, Intestinal Obstruction	2	1	..	..	2	2	3	1	3	6	2	..	..	2	12	2	5	1	22
Other Diseases of the Intestines	1	..	..	1	..	..	..	..	1	..	..	..	..	..	1	..	2	..	3
Cirrhosis of the Liver, &c. ..	..	..	..	..	..	6	7	11	..	2	3	..	..	3	9	4	11	2	29
Biliary Calculi	..	..	..	..	..	..	..	..	..	2	..	..	..	..	1	1	..	..	2
Other Diseases of the Liver ..	2	..	..	..	1	..	..	..	2	2	..	..	..	..	2	1	2	2	7
Peritonitis	..	..	..	..	..	..	3	..	..	2	..	..	..	..	..	..	4	1	5
CLASS VI.																			
Non-Venereal Diseases of the Genito-urinary System and Annexa.																			
Acute Nephritis	..	2	1	2	1	2	9	5	4	6	2	..	1	5	5	4	12	7	34
Bright's Disease	..	..	..	1	3	6	10	7	4	8	4	..	..	4	10	12	13	4	43
Other Diseases of Kidney, &c.	1	..	1	..	..	..	1	1	..	..	..	..	..	..	2	2	..	..	4
Diseases of Bladder ..	..	..	..	..	..	..	..	..	2	1	..	..	..	..	..	1	2	..	3
Diseases of the Uretha, Urinary Abscess, &c.	..	..	..	..	..	..	..	1	1	2	..	..	..	..	2	..	2	..	4
Diseases of the Prostate ..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	1	1	2
Uterine Haemorrhage ..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	1
Uterine Tumour	..	..	..	..	..	1	1	1	..	..	..	..	..	..	1	..	1	1	3
Ovarian Cyst, Tumour ..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
Other Diseases of the Genital Organs	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	1

TABLE V.—*Continued.*

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	Landport North	Landport Central	Mid-Southsea	Southsea	
CLASS VII. The Puerperal State.																			
Puerperal Haemorrhage ..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	1
Other Accidents of Childbirth	..	..	..	1	3	2	..	..	..	..	..	..	1	..	3	1	..	1	6
Puerperal Fever	..	..	..	2	4	1	..	..	..	..	..	..	1	1	3	1	1	..	7
Puerperal Albuminuria and Convulsions	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	1
Puerperal Insanity	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	1
CLASS VIII. Diseases of the Skin and Cellular Tissue																			
Senile Gangrene	..	..	..	..	..	..	..	..	..	2	..	..	..	..	1	..	1	..	2
Carbuncle, Boil	..	..	..	..	..	..	..	2	..	1	..	..	..	..	1	..	1	1	3
Phlegmon, Acute Abscess ..	1	1	..	..	1	..	..	..	..	..	..	..	..	..	2	1	..	..	3
Diseases of the Integmentary System	2	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	2	..	3
CLASS IX. Diseases of the Bones and of the Organs of Locomotion.																			
Diseases of the Bones ..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	1
Diseases of the Joints ..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	1	..	1	..	2
Other Diseases of the Locomotor System	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
CLASS X. Malformations.																			
Congenital Malformations ..	26	..	..	..	..	..	..	..	..	..	..	..	..	1	11	2	12	..	26

CLASS XI.																			
Diseases of Early Infancy.																			
Premature Birth, Infantile Debility, &c.	194	2	..	..	..	..	..	..	..	..	..	..	8	16	44	65	53	10	196
Other Diseases peculiar to early Infancy	15	..	..	..	..	..	..	..	..	..	..	..	1	..	8	4	1	1	15
CLASS XII.																			
Old Age.																			
Old Age, Senile Dementia, Senile Decay	...	..	..	..	..	..	..	..	4	70	166	71	3	16	76	87	109	20	311
CLASS XIII.																			
Affections produced by External Causes.																			
Suicide—Poison	..	..	..	2	..	..	1	..	..	..	1	..	..	..	..	1	3	..	4
Asphyxia	..	..	..	1	..	..	1	..	..	..	..	..	..	1	..	..	1	..	2
Hanging	..	..	..	..	..	..	3	..	..	..	..	..	..	1	..	..	2	..	3
Drowning	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	1
Firearms	..	..	..	..	..	1	1	..	..	..	..	..	..	..	1	1	..	..	2
Cutting or Piercing Instruments ..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
Accident—Other acute poisonings	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	1
Burns	..	6	1	..	..	..	..	..	1	1	..	..	..	..	1	3	4	1	9
Suffocation ..	11	2	4	2	1	1	1	1	..	1	..	..	..	..	8	11	4	1	24
Drowning ..	..	..	..	3	..	1	..	1	1	1	..	..	5	..	1	..	1	..	7
Cutting or Piercing Instruments ..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	1
Fall	..	..	1	1	2	..	2	2	..	..	..	2	..	2	1	2	4	1	10
Machines	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Crushing ..	..	1	1	1	..	1	1	..	..	..	..	..	..	5	..	..	..	..	5
Fractures	..	..	1	..	..	2	1	..	..	..	..	..	..	..	1	1	1	1	4
CLASS XIV.																			
Ill-defined Causes.																			
Heart Failure, other Ill-defined Causes	4	3	..	..	..	2	1	1	..	1	..	..	..	..	2	4	4	2	12

SUMMARY OF TABLE V.

Class	DISEASES	Number of Deaths
I.	General Diseases	988
II.	Diseases of the Nervous System and of the Organs of Special Sense	298
III.	Diseases of the Circulatory System	374
IV.	Diseases of the Respiratory System	453
V.	Diseases of the Digestive System	169
VI.	Non-venereal Diseases of the Genito-urinary System and Annexa	96
VII.	The Puerperal State	16
VIII.	Diseases of the Skin and Cellular Tissue	11
IX.	Diseases of the Cones and of the Organs of Locomotion	4
X.	Malformations	26
XI.	Diseases of Early Infancy	211
XII.	Old Age	311
XIII.	Affections produced by external causes	75
XIV.	Ill-defined Causes	12

TABLE VI.

Table showing the Numbers and Death-rates per 1000 of Population form the Seven Principal Zymotic Diseases, from Lung Diseases (excluding Phthisis), from Phthisis, and from all causes, during each Quarter and for the whole year 1912.

Quarter ending	The Seven Principal Zymotic Diseases* All ages		Lung Diseases (excepting Phthisis†)		Phthisis		From all Causes	
	No.	Rate per 1000	No.	Rate per 1000	No.	Rate per 1000	No.	Rate per 1000
March 30th, 1912 ..	108	1·83	210	3·54	62	1·05	943	15·98
June 29th, 1912 ..	124	2·10	91	1·54	67	1·13	757	12·82
September 28th, 1912	70	1·18	62	1·05	73	1·23	645	10·93
December 28th, 1912	77	0·45	90	1·52	65	1·10	700	11·86
Totals ..	379	1·60	453	1·91	267	1·13	3045	12·90

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

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

TABLE VII.

Showing the number of Deaths in the Years 1861 to 1912, from the Seven Principal Zymotic Diseases.

Year	Population	DISEASES							Totals
		Small-pox	Measles	Scarlet Fever	Diph-theria	Whoop'g Cough	Fever	Diarr-hoea	
1861	95220	1	3	5	6	11	111	152	292
1862	96960	..	42	225	20	36	128	71	523
1863	98731	12	80	134	24	16	37	68	391
1864	100531	228	6	17	17	48	72	118	498
1865	102363	3	14	20	7	50	74	122	317
1866	104230	1	16	34	26	46	85	117	330
1867	106130	..	82	15	4	23	74	140	338
1868	108064	..	46	107	18	57	119	117	526
1869	110034	1	57	295	18	26	105	100	602
1870	112040	1	39	119	13	46	91	121	430
1871	114083	39	42	30	10	66	72	100	366
1872	114970	514	52	5	21	17	112	113	834
1873	116380	45	16	12	15	19	97	106	310
1874	117810	2	56	36	19	104	101	149	470
1875	119260	..	54	47	18	8	103	141	371
1876	120730	1	109	457	11	42	71	131	822
1877	122210	..	12	36	5	59	87	153	322
1878	123710	..	36	16	1	92	96	170	411
1879	125250	..	10	11	4	9	62	73	169
1880	126830	..	42	9	20	48	70	192	381
1881	128691	..	7	25	205	66	60	73	436
1882	131535	..	156	40	106	36	107	111	556
1883	134441	1	10	16	20	54	93	80	274
1884	137412	..	164	9	41	9	58	116	397
1885	140448	..	7	5	42	44	93	123	314
1886	143552	1	197	18	65	102	124	191	698
1887	146724	3	8	26	47	41	53	151	329
1888	149966	..	50	12	17	27	27	98	230
1889	153279	2	8	11	33	92	32	122	300
1890	156667	..	4	19	47	39	50	105	265
1891	160128	..	223	9	23	38	33	73	399
1892	163667	..	38	18	26	87	42	99	310
1893	165153	..	120	32	29	36	54	247	518
1894	167878	4	139	14	34	41	29	93	534
1895	170672	..	39	7	18	64	37	238	403
1896	173565	..	126	19	20	60	28	157	410
1897	176497	..	35	11	22	65	44	286	463
1898	179500	..	73	31	54	42	44	183	427
1899	182576	..	50	22	120	62	75	316	645
1900	185725	..	3	11	104	87	93	159	457
1901	188885	..	82	15	70	21	43	311	542
1902	193969	..	70	14	62	92	54	159	451
1903	198049	..	17	27	75	34	23	115	291
1904	202171	..	1	22	71	76	34	213	417
1905	206336	..	218	11	69	45	18	173	534
1906	210546	..	8	5	60	63	17	226	377
1907	214797	..	169	4	61	57	30	60	381
1908	219095	..	14	8	49	55	26	48	200
1909	223436	..	104	19	66	27	33	54	303
1910	227821	..	64	30	56	52	39	54	295
1911	232221	..	28	21	72	40	26	290	477
1912	236732	..	95	29	124	52	22	57	379

SMALL-POX.—Again there has been no case of Small-pox notified in the Borough during the year. I append the usual tables giving particulars as to Vaccination. It will be noted that the number of children in respect of whom certificates of conscientious objection to vaccination have been received is steadily on the increase. It is perhaps only natural that this should be so, for the cases of small-pox have been, fortunately, so few during recent years that the old dread of the disease is disappearing. Of course, Portsmouth is still far from being what could be termed an unvaccinated community. I sincerely trust it will never become so, because, should this happen, the introduction of small-pox is almost certain to emphasize the mistake by exacting a heavy death toll amongst children.

TABLE VIII.

VACCINATION RETURNS FOR PAST FOURTEEN YEARS.

Year	No. of Births returned in birth sheets so registered from 1st Jan. to 31st Dec.	Successfully Vaccinated	Insusceptible to Vaccination	Had Smallpox	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
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	5446	4831	12	..	471	23	35	24	..	50
1904	5609	4916	23	..	556	28	23	17	1	45
1905	5637	5015	15	..	477	25	35	26	..	44
1906	5891	5117	35	..	552	43	47	28	2	67
1907	5863	5069	20	..	495	40	63	25	2	149
1908	5998	5120	35	..	473	37	43	24	..	266
1909	5861	4938	46	..	430	40	33	26	2	346
1910	5809	4667	15	..	449	40	50	21	5	562
1911	5788	4376	57	..	510	41	43	42	6	713
1912 (to June)	2907	2181	15	..	197	63	34	14	11	392

TABLE IX.

VACCINATION RETURNS—1st January to 30th June, 1912.

Registration Sub-Districts comprised in the Vaccination Officer's District	Number of Births returned in the Birth List Sheets as registered from 1st January to 30th June, 1912	Number of these Births duly entered by 31st Jan., 1913 in Columns 1, 2, 4 and 5, of the Vaccination Register Birth List Sheets, viz.:					Number of these Births which on 31st January, 1913, remained unentered in the Vaccination Register on account (as shown by Report Book) of			Number of these Births remaining on 31st January, 1913, neither duly entered in the Vaccination Register (columns 3, 4, 5, 6 & 7 of this Return) nor temporarily accounted for in the Report Book (columns 8, 9 and 10 of this Return)
		Col. 1 Successfully Vaccinated	Col. 2		Col. 4 Number in respect of whom Certificates of Conscientious Objection have been received	Col. 5 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	
			Insusceptible of Vaccination	Had Small-Pox						
1	2	3	4	5	6	7	8	9	10	11
1. North End and Buckland ..	904	666	5	..	153	53	10	9	5	3
2. Kingston and East Southsea ..	806	602	5	..	123	43	17	7	5	4
3. Portsea and Landport ..	698	531	2	..	65	65	20	9	3	3
4. Portsmouth and Mid-Southsea..	499	382	3	..	51	36	16	9	1	1
Totals ..	2907	2181	15	..	392	197	63	34	14	11
VACCINATION OF CHILDREN whose Births were registered in this District from Jan. 1st to Dec. 31st, 1911, inclusive.										
1. North End and Buckland ..	1869	1366	17	..	314	144	11	9	8	..
2. Kingston and East Southsea ..	1572	1170	16	..	212	140	10	14	6	4
3. Portsea and Landport ..	1430	1132	10	..	101	140	13	16	17	1
4. Portsmouth and Mid-Southsea..	917	708	14	..	86	86	7	4	11	1
Totals ..	5788	4376	57	..	713	510	41	43	42	6

SCARLET FEVER.—Scarlet Fever was unusually prevalent during the year. Altogether 1,407 cases of this disease were notified ; the deaths, however, only amounted to 29, showing that the disease was of a mild type. This large number of cases was caused in the first place by the distribution during the third week in April of milk from a dairy farm in which there had been a case of scarlet fever. Later on in the year, during September, October, November and December, the disease again became prevalent, but in this case no specific source of infection was discernible.

The first outbreak in April is interesting as showing how rapidly, by means of a properly equipped Health Department, one is able, when a disease is milk-borne, to locate the source of infection and stop the spread of the disease. The circumstances of the outbreak have been already reported to you and briefly were as follows :—

On Thursday evening and Friday morning, April 18th and 19th, an unusually large number (32) cases of scarlet fever was notified to me from Southsea. An Inspector at once, on Friday morning, went round on a bicycle to all these cases, and it was ascertained that nearly all the cases were amongst the consumers of milk from a certain dairy. I at once saw the manager of the dairy, and having satisfied myself that there was no infection either on the premises or amongst the employees, obtained from him the addresses of the farms from which the milk had come which had been supplied to the infected houses. It was found that the infected houses were on one particular round, and fortunately the milk supplied on this round came from two farms only, and was not mixed with the milk sent in from other dairy farms. At my request the manager stopped issuing the milk supplied by these farms, and all the cans and dairy utensils were at once disinfected with steam. I then took a motor car and visited the two farms in question. The first farm visited was at Fareham, and careful examination of the cattle and of all the hands employed on the farm, revealed no evidence that this milk could be the cause of the outbreak ; everybody on the farm and the families of the milkers employed at the farm were in good health and showed no signs of scarlet fever.

I next proceeded to the other farm, which was situated at Westbourne. Here I was informed that there was no illness at the farm nor amongst the persons employed in milking the cows. As regards the farm itself, this I found to be correct, but on visiting the homes of the milkers I learned that the wife of one of the milkers had been in bed for a day with

what was described as "a chill." An examination of this woman showed that she was unmistakably recovering from an attack of scarlet fever. No medical man had, however, been called in ; the illness was thought to be just an ordinary cold and sore throat. (Subsequently I heard from the Medical Officer of Health of the district that two of the children of this woman also contracted scarlet fever.)

The milk supply from this farm was at once stopped, and the dairy in Portsmouth agreed to take no more milk from it until I had notified them there was no longer any danger of infection.

The discontinuance of the supply had the desired effect of at once stopping the outbreak, except for a few secondary cases ; altogether there were over 100 cases of scarlet fever attributable to this milk. The milk from this farm was not again sent into the town for about three months, until all danger of further infection had disappeared.

Some persons who had suffered from the outbreak were inclined to blame the dairy, and talked of commencing civil actions for damages. In the end, however, no such action was taken, and so far as I could form an opinion, the management of the dairy was in no ways to blame ; they had adopted all reasonable precautions to secure the purity of their supply, and they not only willingly and promptly adopted every measure I suggested, but gave me every facility and assistance in investigating the outbreak.

An interesting point in connection with the outbreak, and one which has been noticed before in connection with an outbreak spread by milk, was the large proportion of domestic servants who were attacked. This is explained by the suggestion that a number of servants take a drink of milk in the morning when it is delivered at the houses. Out of 48 adults whose disease was attributed to this milk supply in April, 11 were domestic servants.

Later on in September the disease again became prevalent. From the beginning of September till the end of the year 807 cases were notified, an average of about 41 per week. Although there was no definite source of infection to which we could attribute the disease, I have no doubt in my own mind that the principal factors concerned in the spread were the large public elementary schools, where so many children of susceptible age are daily brought into close contact. The prevalence began to be marked soon after the schools reassembled after the summer holidays, and continued right

up to the Christmas holidays, when rather fewer cases were notified. A reason why scarlet fever spreads is that the type of disease is now so exceedingly slight, that it is often overlooked, and a child who has a mild attack, accompanied by a slight sore throat, a transient rash and a little feverishness, is regarded as having had only a chill, and returns to school after a day's absence while still in an infective condition. It appears impossible to prevent this state of affairs, and there seems little hope of ever getting scarlet fever under control so long as it exhibits the mild and indefinite type so common at the present time.

HOSPITAL.—Both early in the year and during the last four months it was found impossible to find accommodation at the Milton Hospital for all the cases who desired admission. The question of further enlargement of the Hospital is accordingly receiving the attention of the Health Committee, and it has already been decided to purchase more land adjoining the present site.

All the premises upon which a case of scarlet fever occurred have been visited, and careful examination has been made in order to secure the removal of any conditions existing that might be prejudicial to the inmates. Library books have been removed; precautions have been taken to prevent infection being carried to schools, and at the end of the illness the premises have been disinfected. Sanitary defects were found upon 121, or 8.5 of the premises upon which scarlet fever occurred.

TABLE X.

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 to 1912.

Year	Cases notified	Attack-rate per 100,000 population	No. of Deaths	Percentage of Deaths to cases notified
1884 ..	266	194	9	3·38
1885 ..	314	224	5	1·59
1886 ..	343	239	18	5·24
1887 ..	647	441	26	4·02
1888 ..	465	310	12	2·58
1889 ..	728	475	11	1·51
1890 ..	573	366	19	3·31
1891 ..	326	203	9	2·76
1892 ..	1023	630	18	1·76
1893 ..	1176	712	32	2·73
1894 ..	458	273	14	3·06
1895 ..	311	182	7	2·25
1896 ..	524	302	19	3·62
1897 ..	699	396	11	1·57
1898 ..	710	395	31	4·65
1899 ..	578	316	22	3·80
1900 ..	348	187	11	3·16
1901 ..	452	239	15	3·31
1902 ..	603	310	14	2·32
1903 ..	1167	589	27	2·31
1904 ..	726	358	22	3·03
1905 ..	530	256	11	2·07
1906 ..	383	181	3	0·80
1907 ..	282	130	4	1·42
1908 ..	597	272	8	1·34
1909 ..	1165	521	19	1.62
1910 ..	1276	560	30	2·35
1911 ..	855	368	28	3·27
1912 ..	1407	594	29	2.06
Total (29 years)	18,932	352	482	Mean 2·54

TABLE XI.

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 admitted for the years 1884 to 1912.

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 ..	354	11	3·12
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
1904 ..	340	8	2·38
1905 ..	274	4	1·44
1906 ..	243	2	0·82
1907 ..	202	5	2·48
1908 ..	343	4	1·17
1909 ..	631	14	2·20
1910 ..	850	16	1.88
1911	635	18	2.83
1912 ..	702	19	2·70
Total (29 years) ..	9,961	201	Mean 1·80

DIPHTHERIA.—I have to report that this disease, which was unduly prevalent during the latter part of 1911, continued to be notified in unusually large numbers during the whole of 1912. Altogether 1,051 cases of diphtheria were notified during the year, and of these 124 proved fatal, the mortality rate being 11.8 per cent. There have been more cases of diphtheria notified during 1912 than in any previous year since the notification of this disease has been in force in the Borough (1884). The attack rate of the disease was 444 per 100,000 of the population ; the nearest approach to this was in 1903, when it reached 319 per 100,000 population.

During the last three months of 1911 the notifications of diphtheria numbered 226 ; these numbers were exceeded during 1912. During the week ending February 10th there were 28 notifications, and the incidence of the disease has been maintained without any appreciable diminution throughout the year. The largest number of notifications in any one week was in that ending October 9th, when they reached 44.

The following table shows the number of notifications received during each week in the year, together with the weekly number of deaths registered from the disease.

Week ending	Notifications	Deaths	Week ending	Notifications	Deaths
January 6	14	2	July 6	21	2
,, 13	17	..	,, 13	22	..
,, 20	9	..	,, 20	13	2
,, 27	17	1	,, 27	14	1
February 3	13	1	August 3	13	..
,, 10	28	2	,, 10	18	1
,, 17	14	3	,, 17	17	2
,, 24	14	..	,, 24	14	1
March 2	19	..	,, 31	17	3
,, 9	11	4	September 7	26	2
,, 16	23	1	,, 14	25	2
,, 23	12	3	,, 21	18	3
,, 30	23	5	,, 28	32	6
April 6	17	4	October 5	18	1
,, 13	14	2	,, 12	27	2
,, 20	10	2	,, 19	44	6
,, 27	15	1	,, 26	28	4
May 4	25	3	November 2	32	4
,, 11	26	3	,, 9	26	4
,, 18	28	1	,, 16	22	5
,, 25	12	9	,, 23	34	4
June 1	16	..	,, 30	33	3
,, 8	15	4	December 7	13	2
,, 15	18	2	,, 14	28	1
,, 22	18	2	,, 21	20	3
,, 29	20	2	,, 28	15	3

With the exception of the districts of Portsmouth and Southsea the disease has shown itself all over the Borough ; amongst the areas principally affected were Eastney and the neighbourhoods of St. Mary's Road and Voller Street. The number of cases notified in the different sanitary districts of the Borough were as follows :—

Portsmouth ..	13	Landport Central ..	325
Portsea ..	22	Mid Southsea ..	308
Landport North	316	Southsea ..	67

The number of cases removed and treated at the Milton Hospital was 782, or 74.4 per cent. of the notifications. On several occasions, owing to lack of accommodation at the Hospital, it was not possible to admit at once all the cases that needed removal, and on one day, October 24th, we were unable to admit four such cases. The inability to admit cases was partly due to the large number of cases of scarlet fever which had to be dealt with at the same time.

The total number of deaths has been 124, and of these 86 occurred amongst patients who had been removed to Hospital. One of the principal reasons for so many deaths, is that patients have been sent to the Hospital when it is too late for treatment by anti-toxin to have a chance of success. The parents of the children have apparently not realised the serious nature of the disease, and have not called in a medical man until the disease has advanced too far for any hope of successful treatment. Tracheotomy had to be performed in 12 cases, and of these four recovered ; several of these were cases of severe faucial and laryngeal diphtheria, and the patient was dying from the effects of toxaemia when admitted.

Although I have carefully considered the circumstances in connection with this disease, I have been unable to find a satisfactory explanation for its prevalence. It has been accompanied by an increased prevalence of scarlet fever, a disease similar in some respects to diphtheria, and it is possible that both may be due to some climatic or atmospheric conditions not sufficiently understood. But although unable to state the actual cause of the disease, I think there can be no doubt that one of the factors concerned in its spread is the facility afforded for the transmission of infection in the public elementary schools and Sunday schools. Another factor which undoubtedly offers great facility for spread of infection is the large attendance of children at cinematograph performances. At these the children are seated closely

together, and the ventilation of the halls often leaves much to be desired. Beyond the fact which has been ascertained, that a number of children notified to be suffering from diphtheria have previously attended picture palaces, I have no direct evidence that these have played a part in the spread of the disease ; it is a matter, however, that certainly needs further investigation.

Special endeavours have been made to prevent the spread of infection at schools. The teachers have been notified at once of the illness of any of their pupils, and have been warned to be on the look out for any symptoms of illness amongst children who have been sitting next to the child affected, or who come from the same neighbourhood, and in the event of any such child appearing out of sorts, are instructed to send him home at once and report to me without delay. A handbook, setting out in plain language the prominent symptoms of the common infectious diseases, has been issued to every teacher in order to enable them to recognise the onset of disease at the earliest possible moment.

No child is allowed to return to school until four weeks have elapsed since the termination of the disease, and it is also advised that no child be allowed to return until two bacteriological examinations of the throat have shown it to be free from diphtheria bacilli. Other children in a house infected with diphtheria are allowed to return to school at the end of two weeks after the removal of the patient to Hospital, provided bacteriological examination shows their throats free from diphtheria bacilli. If the patient is not removed to Hospital, but is treated at home, other children in the house are allowed to return at the end of two weeks after the patient is declared free from infection, provided bacteriological examination is satisfactory ; if no bacteriological examination is made the period is increased to four weeks.

In several cases where the patient had recovered and was apparently free from infection, the bacteriological examination of rubbings taken by the medical attendant has shown diphtheria bacilli still to be present in the throat. This points to the necessity for insisting that no child should be allowed to return to school after an attack of diphtheria until the throat has been found on bacteriological examination to be free from the bacillus.

Amongst the schools which have suffered most severely have been St. Mary's Road with 60 cases, Drayton Road 52,

Reginald Road 52, and Penhale Road 46 cases. The number of cases in each school is shown in the following table :

School	*No. of Cases*	*School*	*No. of Cases*
Albert Road	1	Kent Street	3
Arundel Street	26	Milton	27
Beneficial Society ..	2	New Road	24
Binsteed Road	8	Omega Street	16
Bramble Road	15	Penhale Road	46
Church Street	10	Portsea Free	2
Circus	6	Portsmouth Town ..	1
Conway Street	2	Reginald Road	52
Copnor	24	St. Agatha's	7
Corpus Christi	3	St. John's R.C. ..	2
Cottage Grove	29	St. Jude's	3
Drayton Road	52	St. Luke's	8
Flying Bull Lane ..	19	St. Mary's Road ..	60
Francis Avenue	20	St. Swithun's	4
Fratton	14	Swan Street	12
George Street	16	Stamshaw	28
Highland Road ..	24	Wellington Place ..	12

The ages of the persons attacked, and the number of deaths at each, is given in the following table. It will be seen that the disease occurred mostly amongst children of school age, and that the disease proved most fatal amongst children aged from 1 to 5 years.

Ages in Years	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 & over	Total
Notified Cases	6	20	58	92	115	143	110	117	78	68	53	24	29	25	16	28	40	18	5	5	1	1051
Deaths	..	4	13	16	16	17	15	14	9	10	3	2	1	..	2	1	..	..	..	1	..	124
Percentage Mortality of each Age Group	..	20	22·4	17·4	13·9	11·9	13·6	11·9	11·6	14·7	5·7	8·3	3·5	..	12·5	3·6	..	..	..	20	..	11·9

Each of the premises upon which a case of diphtheria occurred was at once visited by an Inspector, with a view to endeavour to ascertain the cause of the disease and to see that the necessary precautions were observed to prevent its spread. Printed leaflets of instruction were also left, the premises were examined with a view to the removal of any nuisance injurious to health that might exist, and the house drainage, sinks, wastes, etc., were inspected and tested. In 210 cases, or 19.9 per cent., sanitary defects were discovered. Enquiries were instituted in each case in regard to the milk supply, as to school attendance, as to contact with persons in ill-health, and as to any places that may have been visited by the patient previously to the attack. At the conclusion of the disease, and when the patient had been certified by the medical attendant to be free from infection, the premises have been disinfected by means of formalin.

Although enquiries have been systematically made in regard to the milk supply I have not been able to trace the disease to this source ; there have not been any suspicious circumstances pointing to the implication of the milk supply in spread of the disease, nor marked prevalence of the disease amongst the consumers from any particular dairy. Under the existing conditions of the milk supply, where the milk from a number of farms is received by one large dairy firm and distributed to various retail dealers, it is often difficult to establish the relationship, should it exist, between cases of disease and the milk from a particular dairy farm. At the same time I think if the milk had been involved some evidence would have been forthcoming. I am strengthened in this opinion by the fact that when in the spring of the year a particular milk was found to be involved in the spread of scarlet fever, the source of the infection was quickly detected.

As has been the practice in the Borough for a number of years, facilities have been provided to medical practitioners for a bacteriological report in every case ; outfits for collecting material from the throats of patients are prepared at the Health Department and can be obtained on application ; the results are telephoned soon after receipt if a direct examination is made, and as a rule within 18 hours if a cultivation from the swab had to be made. During the year I have made 887 bacteriological examinations and the results have shown that diphtheria bacilli were present on 331 occasions. Included in these is the examination of 81 specimens from nasal discharge, of which 38 were found to contain diphtheria bacilli.

Antitoxin has been supplied to medical practitioners free of charge for necessitous cases. A circular letter was issued informing practitioners that in order to avoid delay in obtaining antitoxin, arrangements had been made for it to be supplied on application day and night at the Town Hall, or at any police station in the Borough. Altogether 449 bottles of antitoxin (each of 2,000 units strength) were supplied to medical practitioners, and of these 223 were supplied free of charge. A circular letter has also been issued advising that in any suspicious case antitoxin should be administered without awaiting the result of a bacteriological examination, and that in any severe case that needed removal to the Hospital, antitoxin should be at once administered pending the patient's removal.

Steps are being taken to enlarge the Milton Hospital, so that all cases of diphtheria that need accommodation can be admitted. An isolation hospital is of particular value for cases of diphtheria, not so much for purposes of isolation as for the means it affords of providing the skilled nursing that is so essential a part of the treatment of the disease. If only cases of diphtheria were committed to the Hospital on the first day of the disease it is safe to say that nearly the whole would make a good recovery. In the Report for 1911 of the Metropolitan Asylums Board it is shewn that of the 149 cases admitted on the first day of the disease only 4, or 2.7 per cent., proved fatal.

TABLE XII.

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 1912.

Year	Cases notified	Attack-rate per 100,000 population	No. of Deaths	Percentage of Deaths to cases notified
1884 ..	174	127	41	23·44
1885 ..	173	123	42	24·25
1886 ..	232	161	65	26·72
1887 ..	260	175	47	19·08
1888 ..	128	86	17	13·28
1889 ..	126	82	33	26·19
1890 ..	212	135	47	22·69
1891 ..	140	87	23	16·42
1892 ..	121	74	26	21·48
1893 ..	140	84	29	21·48
1894 ..	139	82	34	24·46
1895 ..	124	72	18	14·51
1896 ..	124	71	20	16·12
1897 ..	148	83	22	15·07
1898 ..	283	157	54	19·08
1899 ..	566	310	120	21·20
1900 ..	568	305	104	18·30
1901 ..	454	240	70	15·41
1902 ..	495	255	62	12·52
1903 ..	633	319	75	11·84
1904 ..	601	297	71	11·81
1905 ..	457	221	69	15·10
1906 ..	430	204	60	13·95
1907 ..	423	196	61	14·89
1908 ..	434	198	49	11·28
1909 ..	494	221	66	13·36
1910 ..	470	206	56	11·90
1911 ..	554	238	72	13·00
1912 ..	1,051	444	124	11·80
Total (29 years)	10,154	181	1577	Mean 15·53

TABLE XIII.

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 1912.

Year	Cases admitted	No. of Deaths	Percentage of Deaths to cases treated
1884 ..	4	1	25·00
1885 ..	6	..	..
1886 ..	11	1	9·09
1887 ..	27	8	29·60
1888 ..	23	..	..
1889 ..	18	..	..
1890 ..	69	18	26·10
1891 ..	52	4	7·70
1892 ..	27	6	22·22
1893 ..	12	4	33·33
1894 ..	38	8	21·05
1895 ..	46	5	10·87
1896 ..	38	4	10·52
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
1904 ..	220	23	10·45
1905 ..	198	24	12·12
1906 ..	239	35	14·64
1907 ..	235	28	11·91
1908 ..	284	23	8·10
1909 ..	354	40	11.30
1910 ..	336	45	13·40
1911 ..	436	51	11·69
1912 ..	782	86	10·99
Total (29 years) ..	4,484	552	Mean 12·31

ENTERIC FEVER.—I am glad to be able to report that during last year there were fewer cases of Enteric or Typhoid Fever than in any previous year. The total number was 140 and there were only 22 deaths. The decrease in the number of cases of enteric fever is particularly satisfactory, because this is perhaps the one disease whose prevalence is most closely affected by improved sanitation. As marking the improvement which has taken place in the Borough in respect of this disease it is interesting to note that whilst in the five years commencing 1884 (the first year in which records were kept), 47 out of every 10,000 persons in the Borough were attacked each year by enteric fever, during the last five years, including 1912, only 9 out of every 10,000 have been attacked, and during 1912 only 6 out of every 10,000. In other words, if enteric fever had been as prevalent last year as it was in 1884-89, there would have been, not 140, but 1,013 cases of the disease. Great as this reduction is, it might easily be a great deal less if the public would exercise a little common sense in the selection of certain articles of diet, particularly in regard to shell-fish. I believe that most of the enteric fever in the Borough is due to eating shell-fish—oysters, cockles, butterfish and winkles—which have been contaminated with sewage. I have drawn attention to this danger year after year in my annual and in special reports ; these warnings have, however, fallen largely upon deaf ears. The collection of shell-fish takes place regularly from places which are obviously sewage polluted, and the shell-fish are disposed of in the Borough. It is quite common to see persons picking up shell-fish off the bank near Fort Cumberland, within 100 yards of the outfall of the sewage of the Borough, and from other places almost as dangerous. Sometimes these are eaten raw, which is one of the most certain methods of contracting enteric ; and sometimes partially cooked—which partially reduces the risk. So much has been said and written on the danger of contracting enteric fever from eating polluted shell-fish that I am hopeless of any good resulting from anything I may now write. I realise that the difficulty is that the public are to a large extent unable to protect themselves. Once the shell-fish are gathered there is nothing in their appearance to indicate whether they have been collected from a polluted source or not, and provided they are fresh they may appear to be quite wholesome, although loaded with typhoid bacilli. In these circumstances it appears to me the only effectual method of dealing with the subject is by suitable legislation, rendering it illegal to

collect shell-fish from places which are known to be sewage polluted — the lines upon which such legislation should proceed I have already indicated in my Annual Report of 1908.

Last year out of the 140 cases no fewer than 50 were suspected of being caused by eating polluted shell-fish, the shellfish involved were: cockles 36, oysters 7, winkles 4, butterfish 3, and mussel 1. In at least two cases the shell-fish had been picked from the bank at Fort Cumberland, near the sewage outfall.

In connection with the great reduction in the prevalence of enteric fever in this town, which one may fairly claim is for the most part the result of the administration of the Health Department, it may not be inopportune to point out that, in addition to the lessened amount of sickness and death, this reduction represents a considerable monetary saving to the community. It is impossible to estimate accurately the amount of money saved, but if we suppose that every case of enteric fever lasts only for six weeks, and estimate the cost of the illness at 10s. a week, then the reduction in enteric fever represents a saving to the community of over £1,400 in one year—this, too, without taking into account the money lost in wages, or the cost of maintenance of families who might be forced upon the Guardians through the deaths of the wage-earners.

I mention this aspect of the case because, in discussing the cost to the ratepayer of the Health Department, the fact that the money so spent is in reality a good investment from a financial standpoint, as well as from a health point of view, is often lost sight of.

A careful inspection of the premises upon which cases of enteric fever occurred was made and sanitary defects were found in 33 or 23.5 per cent.

TABLE XIV.

Table showing the number of cases of ENTERIC or TYPHOID FEVER notified, the number of Deaths, and the percentage of Deaths to cases notified, for the years 1884 to 1912.

Year	Cases notified	Attack-rate per 100,000 population	No. of Deaths	Percentage of Deaths to cases notified
1884 ..	539	392	58	10·76
1885 ..	762	542	93	11·48
1886 ..	1249	870	124	9·90
1887 ..	554	378	53	9·52
1888 ..	313	208	27	8·60
1889 ..	317	207	32	10·01
1890 ..	457	292	50	10·94
1891 ..	265	165	33	12·40
1892 ..	330	203	38	11·51
1893 ..	361	218	54	14·96
1894 ..	201	119	25	12·44
1895 ..	258	151	33	12·74
1896 ..	235	135	27	11·49
1897 ..	320	181	42	13·08
1898 ..	305	170	43	14·10
1899 ..	531	290	75	14·12
1900 ..	1083	583	92	8·49
1901 ..	324	171	43	13·27
1902 ..	448	230	54	12·05
1903 ..	216	109	23	10·65
1904 ..	223	110	33	14·80
1905 ..	165	79	18	10·91
1906 ..	146	69	17	11·64
1907 ..	233	108	30	13·73
1908 ..	207	94	26	12·07
1909 ..	274	122	33	12·04
1910 ..	251	110	39	15·14
1911 ..	159	68	28	17·61
1912 ..	140	59	22	15·71
Total (29 years)	10,866	219	1,265	Mean 11·64

TABLE XV.

Table showing the number of cases of ENTERIC FEVER admitted to the MILTON HOSPITAL, the number of Deaths, and the percentage of Deaths to cases of Enteric Fever admitted, for the years 1884 to 1912.

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	4·20
1896 ..	76	6	7·90
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	4·28
1904 ..	73	9	12·19
1905 ..	57	7	12·28
1906 ..	72	7	9·72
1907 ..	109	14	12·84
1908 ..	102	15	14.70
1909 ..	96	14	14 58
1910 ..	114	13	11.40
1911 ..	70	10	14·28
1912 ..	71	9	12.67
Total (29 years)	2,133	222	Mean 10·40

MEASLES.—During the year 95 deaths occurred from Measles. This is one of the diseases the control of which has, up to the present, baffled the efforts of sanitary authorities. As I have reported so frequently on the reasons for its prevalence and the causes of the mortality from it, it is unnecessary for me to discuss it again this year. I may, however, again draw attention to the fact that usually nearly all the deaths occur amongst children under five years of age ; this year was no exception, and out of the total of 95 no fewer than 90 come within this class.

It may be remembered that the fact that so many children under five years of age die from measles is one of the arguments I have advanced in favour of the practice of not allowing children under five to attend the public elementary schools, for it is through the medium of these and of Sunday schools that the disease is largely spread. It is true that in any case most children probably will contract measles sooner or later, but the important point to bear in mind is that the longer this can be postponed, *i.e.*, the older the child is before attacked the better chance he has of recovery. If, therefore, children under five years of age were not admitted to the public elementary schools and Sunday schools, doubtless a far larger number would escape measles until after this age, and consequently fewer would die from the disease.

TUBERCULOSIS.—No subject has of late years received so much attention as the prevention and cure of tuberculosis, and in this Borough especially great efforts have been made to control the ravages of this disease.

The total number of deaths from pulmonary tuberculosis during the year was 267, giving a death-rate of 1.13 per 1,000. This is a slight increase over the previous two years, when it was 1.090 and 1.02 per 1,000 living respectively.

That there should have been a slight increase in the number of deaths registered from tuberculosis, in spite of the special efforts made to deal with the disease, may possibly be accounted for by the fact that the year, especially during the summer months, was cold and wet, meteorological conditions which are particularly unsuited to consumptive patients. Another explanation is that although from the death certificates it would appear slightly more deaths from consumption have occurred, in reality this may not be so, but owing to the great attention now given to the disease and to improved methods of diagnosis, deaths from tubercle, which were

formerly erroneously attributed to other diseases, are now more correctly attributed to their proper cause.

The deaths from all other forms of tubercular disease number 78, including tubercular meningitis 30, tubercular disease of the intestines 31.

The Public Health (Tuberculosis) Regulations, 1911, which came into force on January 1st, rendered compulsory the notification of all cases of pulmonary tuberculosis by medical practitioners, and the following is the number of cases notified to me during the year :—

Notified from	Private Medical Practitioners ..	497
,,	District Poor Law Medical Officers ..	117
,,	the Poor Law Infirmary	173
,,	Hospitals	89
,,	School Medical Officers	4
,,	the Municipal Tuberculosis Dispensary	409
	Total ..	1289

A number of persons, however, were notified on more than one occasion, and the above notifications only refer to 1107 individuals. It is principally in connection with admission to the Poor Law Infirmary that duplicate notifications are received, each person suffering from pulmonary tuberculosis must be notified on admission to and on leaving the Union, and as these persons are continually entering and leaving that Institution, it follows they are notified several times. According to the regulations persons suffering from consumption are required to give the address to which they are proceeding when they leave the Union ; these have to be forwarded to the Medical Officer of Health. This information would be of value in enabling us to take measures for the prevention of the disease if the correct addresses were given. Unfortunately we find that as a rule the persons leaving the Union never appear at the addresses which they have given, or else the addresses given are fictitious ones.

The majority of the cases of pulmonary tuberculosis which have been notified have been visited by a Health Visitor, either from the Health Department or from the Dispensary. At these visits various particulars are ascertained, advice is given as to the measures to be taken in regard to the prevention of the spread of infection, pocket sputum flasks have been provided, printed instructions left, disinfection undertaken, sanitary defects remedied, and generally action is taken to

prevent the spread of the disease. Altogether 5,616 visits to patients in their homes have been made, including 4,243 made by Nurses at the Dispensary. In addition to the visits by the Health Visitors and Nurses, various visits, when necessary for the removal of insanitary conditions, have been paid by the district Sanitary Inspectors.

The Municipal Tuberculosis Dispensary branch of the Public Health Department in providing an effective means of treatment has filled an important gap in the municipal scheme for the control of tuberculosis in the Borough.

The Dispensary is open every day of the week, except Sundays. The mornings (except Saturday) are occupied with the examination of new patients, the re-examination of old patients during their course of treatment or before discharge, the periodical examination of patients who have received a course of treatment and been discharged, laboratory work, work in connection with the Care Committee, attendance at the Langstone Hospital, the classification and indexing of particulars in regard to patients, together with correspondence and other matters incidental to dispensary administration. Patients receiving a course of tuberculin treatment come to receive their doses in the afternoons and on Saturday mornings. To suit those whose work prevents them coming at these times the Dispensary is kept open from 8.30 to 9.0, or later if required two evenings in the week.

The convenience of the patient is studied as far as possible, and at each attendance a fixed time for his next visit is given him, and he is seen punctually at that time. By this means the congregation of a large number of consumptives in the waiting room is avoided ; further, the patient's time is not wasted, an important consideration to those who have to earn their own living during the time they are undergoing treatment ; and lastly, the giving a fixed appointment, and seeing him at that time punctually, shews the patient that a personal interest is being taken in his case and it encourages him to attend and to follow out the instructions that are given to him.

When a patient first applies at the Dispensary an appointment is given him to attend at an early date for a thorough and careful examination. In the meantime he is instructed how to take and record his temperature on a card, this has to be done four times a day. His weight is taken ; a nurse visits to instruct him on matters connected with home hygiene ; specimens of sputum are obtained for examination ; further particulars required by the Medical Officer are ascertained, and enquiries are made as to the

health of other members of the household ; any insanitary conditions that need remedying are dealt with by the Sanitary Inspectors. Urgent cases, when it appears necessary, are examined at their first application without delay, and if found unfit to attend the Dispensary are adviesd as to the best course to pursue.

One of the most important features in connection with Dispensary work is the endeavour to induce other persons in the household, apparently in the early stage of the disease, to seek medical treatment, either from their medical attendants or at the Dispensary. When visiting at the homes of patients the nurses always ask if there are any other members of the household in ill-health, and the result of these enquiries has been that very many persons in the initial stages of the disease have been induced to seek medical advice, who otherwise might not have done so until too late.

Our relations with medical practitioners in the Borough have been quite satisfactory, and a large proportion of our patients have been sent for treatment by their own medical attendants. We have endeavoured in every way to co-operate with the general practitioner, and I am pleased to think, with success.

A very important factor in the successful administration of the Dispensary has been the Care Committee, the members of which have given a large amount of time and labour in endeavouring to assist persons undergoing treatment at the Dispensary. In a chronic disease like consumption, treatment must of necessity be prolonged, and often the best results cannot be secured unless medical treatment is supplemented by additional nourishment and attention to various social conditions, which do not come within the province of a doctor or nurse. There are patients who are unable to carry out the medical instructions as regards rest, food, sleeping alone, or temporary cessation from work ; others are in need of treatment at a sanatorium or rest in a convalescent home. For these patients the services and aid secured by the members of the Care Committee has been invaluable.

The Care Committee works in co-operation with, and comprises amongst its members, representatives from other organised charitable associations in the Borough. The Hon. Secretary attends at the Dispensary on regular days to interview patients referred by the Medical Officers to the Committee Each patient is then allotted to a member of the Committee, who endeavours to secure the particular assistance that may be needed. As each member of the Committee is usually

connected with some other charity the necessary assistance can generally be secured, and the case can be dealt with satisfactorily, without overlapping, and, consequently, without waste of money or effort. One of the principles of the Committee is that if a case is to be helped at all the assistance must be adequate, for half measures are of little use in dealing with cases of consumption. In those cases where the patient is extremely poor and there is no prospect of the Committee being able to undertake all that is necessary, application is made to the Guardians, who through Councillor Groves, their representative on the Care Committee, have co-operated effectively.

During the year 220 cases have been referred to the Care Committee by the Medical Officers of the Dispensary ; the assistance secured has included friendly visiting, extra nourishment, maintenance of patients under treatment till able to work, part maintenance of family while patient was at hospital or sanatorium, assistance with housework while undergoing treatment, provision of separate beds, loan of deck chairs for outdoor use, provision of warm clothing, and letters for sanatoria and convalescent homes, etc. It is impossible to speak too highly of the advantage of the close co-operation of a band of skilled workers, possessing a knowledge of local social conditions and experienced in dealing with the problems.

Before passing from the Care Committee I must acknowledge with gratitude the valuable services of its Hon. Secretary, Miss E. M. Pye, to whose great experience, powers of organisation and untiring energy the success of the Care Committee is largely due.

The Langstone (Small-pox) Hospital has proved a most valuable adjunct to the Dispensary. It was adopted for the purpose of treating consumptives in September 1911, and during the past year 95 patients have been treated there ; of these 19 were insured persons. The hospital contains 13 beds, and during the summer months two or three extra patients are accommodated in shelters. Medical attention is provided by the Medical Officers to the Dispensary. The hospital has been utilised in connection with the Dispensary for those patients who needed more treatment than could be given at the Dispensary. They include (1) Those whose home conditions were unsatisfactory ; (2) Those for whom a period of observation was necessary in order to form an opinion if there was a possibility of arresting the disease ; and (3) Those who were not responding satisfactorily to tuberculin treatment at the Dispensary.

The majority of patients admitted to the hospital were in a more advanced stage of disease than those generally accepted at sanatoria. Patients are admitted as a rule with the intention of not keeping them for a longer period than three months ; where more prolonged institutional treatment is deemed necessary an endeavour is made to transfer the patient elsewhere.

The patients admitted to Langstone have, with few exceptions, done well, in some cases surprisingly well, and there can be no question but that the results have thoroughly justified the utilisation of this hospital for consumptives. It is difficult to give separate statistics of the results of treatment at the hospital, for when a patient is admitted, his residence there is regarded as part of his course at the Dispensary, where his treatment will in all probability be continued till his discharge. The cases admitted are those presenting difficulties of treatment, and they are essentially those in regard to whom some time must elapse before the permanent effect of treatment can be correctly estimated. While the treatment at Langstone is merely part of the general scheme of treatment carried on from the Dispensary, and the results cannot properly be separated from the Dispensary statistics, yet they have been such as to warrant the provision of a considerable larger hospital on this site, and I hope that in the near future (as provided for in my scheme for the treatment of persons suffering from tuberculosis in the Borough) accommodation will be provided for 40 patients.

The following is the number of patients who have been treated at Langstone Hospital during the year :—

	Men	Women	Total
No. of Patients at beginning of 1912..	4	6	10
,, ,, admitted during 1912	41	44	85
,, ,, discharged during 1912	37	43	80
,, ,, remaining at end of 1912	8	5	13
,, ,, insured persons treated during 1912	14	5	19

The services of Miss Starbuck, the Sister-in-Charge, have been very valuable and have contributed greatly to the comfort of the patients and to the successful administration of the Hospital.

The principal method of active treatment at the Dispensary has of course been by means of tuberculin. The tuberculins employed have been P.T.O. (Perlsucht Tuberkulin Original), P.T. (Perlsucht Tuberkulin), O.T. or T. (Tuberkulin

or Alt Tuberkulin), T.A.F. (Tuberculin Albumose Free), P.B.E. (Persucht Bacillus Emulsion), B.E. (Bacillus Emulsion) and in a few cases Spengler's I.K. Solution).

The routine has been to use T.A.F. for testing, where a test dose has been necessary, T.A.F. has been used in preference to O.T. for this purpose, as it is found by using the T.A.F. the constitutional reaction due to the presence of albuminoids is avoided, and consequently the presence of a local reaction is more easily detected. The course of treatment usually commences with P.T.O., proceeding on to P.T., and finally to O.T. In some cases where the patients have complained of the reactions, T.A.F. has been employed before proceeding to O.T. The bovine emulsion has been tried in some cases that did not appear to respond satisfactorily to the routine preparations ; this has been administered either at an early stage in the treatment or, later on, in those who still showed signs or symptoms of active disease after reaching large doses of O.T. This has in some cases been followed by B.E. Dr. Clark writes, "I have no doubt that T.A.F. is useful in acquiring tolerance to O.T., but it appears advisable not to rest content without obtaining immunity to large doses of O.T. I have not been able to obtain any definite evidence of special clinical characteristics of the emulsions."

The total number of patients who have received a course of tuberculin treatment during 1912 is 567. These, as will be seen from the following table, include 127 insured persons.

		Commenced treatment in 1911	Commenced treatment in 1912	Total
Males ..	Insured ..	19	90	109
	Non-Insured ..	56	44	100
Females	Insured ..	..	18	18
	Non-Insured ..	60	151	211
Children	Males ..	16	48	64
	Females ..	12	53	65
		163	404	567

In regard to the particulars given as to the results secured at the Dispensary, it must be borne in mind that tuberculosis is a disease of long duration, and also that it advances in waves of progression alternating with periods of non-activity. It is therefore impossible to state definitely, after a patient has

completed his course of treatment, that he is quite cured of the disease. To speak confidently of a "cure" four or five years must elapse without any return of the signs or symptoms. In considering therefore the results that are given in the following tables, it must be understood that they refer to the state of the patient, ascertained by very careful examination, at the end of the course. It is probable that a certain proportion of those spoken of as "disease arrested" will in the course of time relapse, and may need a second course of treatment. Allowing for this, I think it will be admitted that the results so far obtained have been distinctly good, better than could have been obtained by other forms of treatment, and, what from the public health administrative point of view is most important, certainly they have been secured at a tithe of the expense of any other method.

During the year 260 patients have been discharged after a course of three months or more. The patients are divided into three stages (after Turban) :—

Stage I.—Patients with definite signs, limited to a portion of one lobe of a lung.

Stage II.—Patients with definite signs, limited to a portion of two lobes, or the whole of one lobe of a lung.

Stage III.—Patients with definite signs, extending beyond the above.

The results secured and tabulated according to the above classification are as follows :—

PATIENTS DISCHARGED DURING 1912 AFTER 3 OR MORE MONTHS TREATMENT.

	Disease arrested	Much improved	Better	No change	Worse	Died	Total
Stage I. ..	88	13	2	4	0	0	107
Stage II. ..	45	27	4	3	2	2	83
Stage III.	12	14	6	10	3	8	53
Non-Pulmon'y cases	11	2	1	3	0	0	17
	156	56	13	20	5	10	260

From which it is seen that 82.2 per cent. of the Stage I. cases, 54.2 per cent. of the Stage II. cases, and 22.6 per cent. of the Stage III. cases have been apparently cured. Of the non-pulmonary cases 64.7 per cent. have been apparently cured.

The above includes a number of cases in whom, although the signs and symptoms left no doubt in the mind of the Medical Officers that the patients were suffering from pulmonary tuberculosis, the actual presence of the tubercle bacillus was not demonstrated. It is more difficult in dispensary practice to prove the presence of the tubercle bacillus than when the patients are under constant supervision at a sanatorium or hospital ; moreover, the frequent examination of the sputum in each case occupies more time than the medical officers have at their disposal. It will, however, prove of interest to give the results obtained in regard to 162 of these patients in whom the tubercle bacillus was found. These are as follows :—

	Disease arrested	Much improved	Better	No change	Worse	Died	Total
Stage I. ..	11	5	1	2	0	0	19
Stage II. ..	10	15	1	2	1	3	32
Stage III.	8	15	3	6	1	7	40
Total ..	29	35	5	10	2	10	91

As is only to be expected, the percentage of successes amongst the patients in whom tubercle bacillus were found is much smaller than in those cases in which no bacilli were found. They are, in Stage I., 57.9 per cent., in Stage II., 31.2 per cent., and in Stage III., 20.0 per cent., in which the disease was arrested.

A large number of advanced cases have been treated at the Dispensary, for whom there was practically no chance of obtaining permanent arrest of the disease. This must be borne in mind when comparing the results of dispensary treatment, where an endeavour is made to take every patient to whom there is a chance of conferring any benefit, with that of sanatorium treatment, where the rule is to accept only patients who offer a good chance of being benefited. Some of the advanced cases at the Dispensary have improved in health and prolonged their working capacity, so that they have been able to make more satisfactory arrangements for their dependents, and also whilst under treatment have generally shewn themselves ready to put into effect the advice given them to prevent the spread of infection.

Only those patients have been refused treatment in regard to whom it was considered that no improvement, even temporary, could be obtained by tuberculin, and for whom no

arrangements could be made to enable them to undergo a course of treatment by tuberculin.

A number of patients have needed other than Dispensary treatment. This has in the following cases been provided by the Care Committee and associated charities, by the local Insurance Committee, and by friends and otherwise. Forty patients have been sent to sanatoria ; 6 to convalescent homes; 58 referred to their own doctors ; 26 to children's homes ; 30 to the infirmary ; 33 to the Royal Portsmouth Hospital, and 9 to other institutions.

The following is a list of the persons who applied at the Dispensary during 1912, but who for the various reasons stated did not receive a course of tuberculin treatment :—

Found on examination not to be Tubercular	..	30
Diagnosis not completed: Not inhabitants of the Borough of Portsmouth		33
Diagnosis not completed: Referred to their own Doctor or to an institution		17
Diagnosis not completed: Unwilling to attend for observation and testing		52
Diagnosis not completed: Being kept under observation	.. ..	247
Refused to have treatment	.. .. ..	34
Referred to their own Doctors, to Hospital, Sanatorium or other Institution	.. .. ..	75
Treatment not necessary, but kept under observation		26
		514

The following table gives the age and sex of applicants at the Dispensary during 1912 found to be tubercular :—

Sex	0 - 15	16 - 20	21 - 30	31 - 40	41 - 50	51 - 60	60 & ov.	Total
Males ..	44	28	59	59	23	12	2	227
Females ..	60	20	76	60	21	6	1	244
Total ..	104	48	135	119	44	18	3	471

The following table classifies the patients according as to whether suffering from pulmonary tuberculosis or otherwise:—

	Tuberculosis of the lungs	Tuberculosis of lungs and larynx	Tuberculosis of lungs and other organs	Tuberculosis of organs other than lungs
Male Adults ..	94	78	3	6
Female Adults	124	56	6	6
Children under 15	64	5	9	20
Total ..	282	139	18	32

The principal occupations of applicants found to be tubercular are as follows :—

Housewives	112	Stay Factory	14
School Children	90	Teachers	8
H.M. Dockyard	36	Laundry	5
Skilled Artisans	14	Clerks	11
Domestic Service	26	Labourers	10
Service (Invalided)	28	Miscellaneous	71
Corporation	11		
Shops	21	Total	471
Tailors & Dressmakers	14		

The average length of a full course of treatment works out at $6\frac{2}{3}$ months, and the average number of attendances during this period is 50. Towards the end of the course the intervals between attendances are much greater than at the commencement.

The number of patients who remained at work throughout their course of treatment was 51 ; included amongst these is one, who, though not fit to work at the beginning of treatment, became fit after a course of sanatorium treatment, and one who was only doing part work at the beginning returned to full work during treatment. The number who were unable to work at the beginning of treatment, but who returned to work during treatment, was 44, and the number who were unable to work, but had their working capacity restored at the end of treatment, was 64.

The best results are of course to be expected in the same class that will do well under other forms of treatment, that is, the early non-acute type. Sanatorium treatment will bring about arrest of the disease in a large proportion of such cases ; if however a dispensary can bring about only equally as good results as sanatoria, there is this advantage, that the patient is cured while still at work and the great cost of maintenance in a sanatorium, loss of work, etc., is avoided. Consequently a Local Authority and Insurance Committee are enabled to provide effective treatment for a far larger number than would be possible if all had to be sent to and maintained at a sanatorium.

The cure for advanced cases of pulmonary tuberculosis has not yet been discovered, but if tuberculin can help some such cases symptomatically, if it can improve the appetite and sleep, lessen headaches, breathlessness and expectoration, give the patient a feeling of well-being, which has perhaps been lost for years, and possibly allow him to carry on his work—and in some cases it certainly does this—then it is certainly worth using, even in advanced cases.

Considerable interest has been taken in the work of the Dispensary by Local Authorities throughout the country, and we have had the pleasure of receiving visits from many Medical Officers of Health and other representatives in order to inspect the Dispensary and methods of administration. Amongst our visitors have been 150 medical men, 45 Medical Officers of Health, and several deputations from Sanitary Committees. Almost without exception these have expressed their satisfaction with what they have seen, and in many instances have decided to model similar institutions in their own districts upon the Portsmouth Dispensary. In addition there have been numerous written enquiries asking for particulars of the Dispensary and details of the administration.

The total cost of the Municipal Dispensary and Langstone Hospital during the year ending December 31st, 1912, has been £2,292 2s. 10d. From this there should be deducted £37 11s. 11d., payments by patients for maintenance at Langstone Hospital and for thermometers ; also the sum of £500 paid by the Local Insurance Committee, leaving a net cost to the Local Authority of £1,754 10s. 11d. It will be noted also that in this amount is the sum of £351 16s. 3d. for furniture at Langstone Hospital.

The expenditure is made up as follows :—

TUBERCULOSIS DISPENSARY.

	£	s	d
Wages	37	18	10
Furniture, etc.	12	1	3
Linen	0	14	2
Rates and Taxes	3	18	4
Telephone	9	10	0
Uniforms (Nurses)	13	19	0
Drugs and Apparatus	230	17	11
Printing, Stationery, etc.	49	8	4
Fuel	5	4	8
Coal Shed	12	18	3
Sundries	25	10	8
	402	1	5
Salaries	804	8	4
Dispensary	1206	9	9
Langstone Hospital	1085	13	1
TOTAL	2292	2	10
Less Local Insurance Committee & Patients' Contributions	537	11	11
	£1754	10	11

LANGSTONE HOSPITAL.

	£	s	d
Wages	165	6	0
Rates and Taxes	15	10	3
Water	8	14	0
Fire Insurance	0	15	4
Telephone	5	3	1
Fuel and Oil	64	13	7
Shelters	12	6	5
Furniture, Fittings, etc.	351	16	3
Drugs and Apparatus	10	9	1
Provisions	376	17	8
Petty Cash	45	0	0
Sundries	29	1	5
	1085	13	1

In the future, owing to the passing of the National Insurance Act, 1911, and to the grants in aid, which have been promised by the Treasury, the Corporation will be able to

greatly extend its work, and in accordance with the instructions of the Council, I prepared in December a scheme for dealing with tuberculosis generally in the Borough. This scheme, which is now under consideration, is as follows :—

SCHEME for the Prevention and Cure of Tuberculosis, including the Administration of Sanatorium Benefit under the Provisions of the National Insurance Act, 1911.

INTRODUCTORY.

In connection with the new conditions that have arisen under the provisions of the National Insurance Act, I am instructed to draw up a scheme for the prevention of Tuberculosis, and for the treatment of persons in the Borough suffering from that disease.

One of the duties of Local Insurance Committees is to make provision for sanatorium benefit for insured persons suffering from tuberculosis, and this benefit may also be extended to the dependants of insured persons. It must be noted that the Local Insurance Committee themselves have no power to give sanatorium benefit, but must make arrangements for this with some persons or local authority (not with the Poor Law Authority). The expression "Sanatorium Benefit" employed in the Act does not necessarily mean residence and treatment in a sanatorium or hospital ; it may include this, but it may equally mean simply giving a bottle of medicine, or even advice, at a surgery. The meaning of "Sanatorium benefit" is simply treatment in some form or another.

Further, not all insured persons are entitled to sanatorium benefit under the Act, but only such insured persons as are recommended for it by the Local Insurance Committee. The number of persons who will receive sanatorium benefit, and the particular form of benefit they will receive, will depend largely upon the sum of money available for this purpose.

The Local Insurance Committee in most large towns will make their arrangements for the administration of sanatorium benefit with the local Sanitary Authority, and this will doubtless be the case in this town, where the Portsmouth Sanitary Authority has already taken such a leading part in endeavouring to combat tuberculosis. I shall accordingly presume this arrangement in formulating the following scheme.

Further, although the National Insurance Act provides sanatorium benefit only for insured persons (and for their dependants if funds are available), most local authorities are now adopting the policy of providing treatment for other poor persons in their districts suffering from tuberculosis. This policy has been put into practice for some time in Portsmouth, and it is now proposed, as referred to later on in this Report, that the National Exchequer shall assist local authorities with grants for this purpose.

Bearing this in mind there will then be three classes of persons for whom provision must be made :—

(1) Insured persons, who are recommended for sanatorium benefit by the Local Insurance Committee, and who will be paid for out of money provided under the Insurance Act ;

(2) The dependants of insured persons, who will also be paid for, if possible, out of the Insurance Act funds. (The expression "dependants" in relation to any insured person, includes such persons as the approved society or Insurance Committee shall ascertain to be wholly or in part dependent upon his earnings.—*National Insurance Act, Sect.* 79.) ;

(3) Other inhabitants of the Borough.

The scheme therefore must make provision for the treatment of all tuberculous persons in the Borough, except those of the well-to-do classes, who will naturally prefer to be attended by their own medical attendants. What this number may eventually prove to be it is impossible at present to estimate accurately, and any arrangements made must be of an elastic nature, capable of enlargement. The important point to bear in mind is that the Municipal scheme for the control of tuberculosis must make provision for practically the whole of the persons affected with tuberculosis in the Borough.

COMPONENT PARTS OF SCHEME.

The scheme which I recommend for adoption is an amplification of the methods already adopted with considerable success in the Borough and will include the following :—

(1) The Dispensary.
(2) A Hospital.
(3) Domiciliary Treatment.
(4) A Sanatorium.
(5) Poor Law Infirmary.
(6) For Children—open-air school, residential school, or home in country, and hospital for cases of surgical tuberculosis.
(7) A Care Committee.

(1) **The Dispensary.** For this scheme by far the most important factor is the Dispensary, which will, under the Health Department, be the centre of the scheme for the control of tuberculosis in the Borough. As you are aware, a Municipal Dispensary—of which the work has proved extremely valuable—was established in Portsmouth in June, 1911, and in the Interim

Report of the Departmental Committee on Tuberculosis subsequently published, the value of the Dispensary fully recognised, and it is regarded indeed as the most important unit in fighting tuberculosis. In the Committee's Report the functions of the Dispensary are stated to be as follows :—

" (1) Receiving house and centre for diagnosis.
(2) Clearing house and centre for observation.
(3) Centre for curative treatment.
(4) Centre for examination of contacts.
(5) Centre for ' after-care.'
(6) Information bureau and educational centre."

So far as possible, every person suffering from tuberculosis will be passed through the Dispensary ; here he will be carefully examined by the Medical Officers, and the best form of treatment for him decided upon. Experience has shown us that a large proportion of patients can be given all the treatment they require at the Dispensary ; others, however, need something further being done for them, and inasmuch as persons in every stage of consumption, and suffering from every form of tuberculosis, will attend at the Dispensary, it is evident that no scheme can pretend to be complete unless it includes the provision of every form of treatment that will be required to meet every class of patient. Some patients, for example, will receive part of their treatment at the Dispensary, and part at some other institution, such as the hospital, sanatorium, or residential school, but wherever the treatment be given, it is the Dispensary which will be the head centre at which the arrangements will be made and from which general supervision will be exercised.

The present Dispensary has already proved too small for the demands that are made upon it, and the increased work that will result from the proposed extended administration of sanatorium benefit demands a larger institution. Moreover, a serious obstacle to the work of the present building has been the fact that it was erected too near to the railway, and the continuous noise from the trains, trams, and heavy carts, renders accurate work with the stethoscope extremely difficult and at times impossible.

It will be necessary then to provide a new Dispensary. I do not propose an expensive permanent structure, but one of similar construction to the present, which can be cheaply and quickly erected, and should contain the following accommodation : Two large consulting rooms ; one large waiting room ; a dark room for laryngoscopic work ; dressing rooms ; laboratory and dispensing room ; committee and secretarial room ; offices, etc.

The present staff at the Dispensary consists of two Medical Officers, three Nurses, and a Secretary. These will probably prove insufficient with the extra work that may result from the extension of sanatorium benefit to dependants and others. At this point, however, I do not make any suggestion as to new appointments ; it is better to wait until a general settlement has been arrived at between the National Health Commissioners and the medical profession as to the part the members of the latter are prepared to take in the administration of sanatorium benefit.

(2) **Hospital.** Next to the Dispensary I regard the provision of a Hospital as of most importance. The success of the scheme suggested for Portsmouth depends largely upon the complete linking together of Dispensary with Hospital, by which method the best results will be secured and the prolonged expensive sanatorium treatment that has been the feature of most methods for dealing with tuberculosis in the past will be to a great extent avoided. To the small extent possible with the limited accommodation (13 beds) at Langstone Hospital, this system has been followed with satisfactory results during the past 15 months, and I have accordingly confidence in advising the Council to proceed along the same lines in the future. The Corporation possess nearly eight acres of land at Langstone, and I advise, to start with, the provision here of a hospital capable of accommodating 40 patients, and that in the plans for its construction the possibility of future extension should be kept in view. I recommend this site because from our past experience patients are found to do well here, and it is necessary that the Hospital should be easily accessible, both to the Medical Officers at the Dispensary and to the patients in the Borough.

The Hospital will be used in connection with the Dispensary for persons who need to be kept for a period under observation, either before commencing a course of treatment at the Dispensary, or who, during their treatment at the Dispensary, are found to need a period of institutional treatment; for persons for whom a course of treatment upon the principle of graduated labour is found advisable; for persons whose home conditions render a short hospital course advisable, and for those whom it is advisable to move to a hospital for purposes of isolation in order to prevent the spread of infection. It is important to have the hospital provided with as little delay as possible, for it must play a most important part in this scheme.

(3) **Domiciliary Treatment.** It is impossible at the present time to make definite detailed suggestions for domiciliary treatment, owing to the attitude of the British Medical Association toward the administration of sanatorium benefit.

A short time ago the Local Insurance Committee enquired of the Provisional Local Medical Committee if medical practitioners in the Borough would undertake the domiciliary treatment of insured persons, provided the Insurance Committee agreed to pay the scale of fees* demanded by the British Medical Association. A reply was received that domiciliary treatment could not be undertaken unless all the conditions drawn up at the Annual Representative Meeting of the British Medical Association were conceded. Inasmuch as some of these conditions are quite impracticable

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* The fees demanded were: (*a*) For Medical Report on Case, 5s.; (*b*) For Consultation at Surgery, 2/6; (*c*) For Visit, 2/6; (*d*) Injection of vaccine, 2/6, vaccines to be supplied at the cost of the Local Authority. (At the Portsmouth Dispensary 20 patients are often injected with tuberculin in one hour; if the same number were treated by a general practitioner at his surgery, the cost would amount to £5, in addition to the cost of the tuberculin. I do not think, however, practitioners are likely to see so many patients as this at their surgeries, and probably the charges here suggested would not in practice prove to be excessive.)

—such, for instance, as that requiring that whole-time medical officers at dispensaries are not to treat patients themselves, but to confine themselves solely to diagnosis and consultative work—nothing further could be done in the direction of securing the co-operation of medical practitioners. Unless a more reasonable attitude is adopted by the British Medical Association, it would appear that the only method of providing domiciliary treatment would be by the employment of whole-time medical officers. At the same time, I do not at present recommend this course, and I should prefer to wait and see if the co-operation of medical practitioners cannot eventually be secured, for it seems to me inevitable that the British Medical Association must listen to the advice of those who have had practical experience in tuberculosis administration ; if they do, they will undoubtedly modify the extraordinary conditions at present insisted upon.

Definite recommendations, therefore, for the provision of domiciliary treatment I propose to omit for the present.*

(4) **The Sanatorium.** As regards the provision of sanatorium beds, I do not think, provided that the Hospital at Langstone be put in hand at once, there need be any great hurry for these. The patients for whom sanatorium treatment appears to be absolutely necessary, can probably be sent by arrangement to existing sanatoria. I estimate that about 30 sanatorium beds will be required for the scheme. As it is proportionately far cheaper to build and maintain a sanatorium for 200 patients than for 30 or 40, I advise that for the present we wait and see what sanatorium accommodation is proposed to be provided by neighbouring County Councils, with a view to concerted action being taken with them.

(5) **Poor Law Infirmary.** Full advantage should be taken of the valuable work done by the Guardians, through their Medical Officer at the Poor Law Infirmary. Special provision is made there for the treatment of persons suffering from tuberculosis ; at the present time there are special wards capable of accommodating 27 patients, and early next year, owing to extensions, there will be special accommodation for 35 males and 35 females. Treatment is there being given on up-to-date lines, and although this institution under the provisions of the National Insurance Act is not available for purposes of sanatorium benefit to insured persons, there will undoubtedly be plenty of scope for the further extension of the useful progressive work there carried out

(6) **Children.** It is essential in any comprehensive scheme for dealing with tuberculosis, that very careful consideration be given to the treatment of tubercular and pre-tubercular or phthisically-disposed children. This is a subject with which the Local Education Authority is also deeply concerned,

*Since writing the above the Chancellor of the Exchequer has made the suggestion that 6d., out of the 1/3 per insured person allowed for sanatorium benefit should be paid to practitioners to provide for domiciliary treatment. If this offer be accepted the difficulty will be solved.

and any action taken must be taken in concert with the Education Committee.

I advise that, as regards children, action be taken in three directions, and that there should be provided, an Open-air School, a residential school or home in the country, and a hospital for the treatment of cases of surgical tuberculosis in children. These three institutions are complementary to each other, and to the Dispensary ; a child attending the Dispensary may go to the open-air school, and from thence to the home in the country, or may be advised to go to the surgical hospital, and then have its education continued at the open-air school. No scheme for dealing with children will secure the best results unless provision in all three directions is made.

Open-air School.—As regards the Open-air School, I suggest the use of a small portion of Milton Park. I recommend this site because the situation is open, the land already belongs to the Corporation, and on the ground of convenience—an important point—it is admirably served by the Corporation tramways. At the start I should advise accommodation being provided for 60 children. I think it inevitable, however, that a considerable increase in this will be needed in the future, and this possibility should be borne in mind in planning the institution.

Open-air Schools will not be limited solely to the use of tuberculous children. They have already been erected by various Education Authorities in the country, and their provision is strongly recommended by Sir George Newman, Medical Officer to the Board of Education, who in his Annual Report for 1911 just issued, writes : " Further, to the School Medical Officer, open-air education is a means of direct preventive medicine. The anaemic child improves in regard to the haemoglobin content of the blood, the emaciated child increases in weight, enlarged glands diminish or disappear, incipient lung troubles improve and even vanish. The individual attention given to the child by the nurse and teacher, the opportunities of bathing and personal hygiene, the adequate meals, the rest hour, and the special arrangements for physical training, engender and foster habits of personal cleanliness and health, difficult to secure in the crowded conditions of the ordinary day school. In this way open-air education tends to restore the enfeebled body to a normal condition of nutrition and energy, helps to dispel many of the nervous conditions incidental to child life in towns, and serves as a most valuable factor in the prevention of all forms of constitutional disease, including tuberculosis."

Residential School or Country Home.—A residential school or home in the country should be provided in connection with the open-air school for defective children who need more continuous attention than can be given at the open-air school. During the past year there have been a number of children attending the Dispensary, for whom residence at such an institution has been necessary, and for many of these the Care Committee have been able to make provision ; it has, however, been a difficult matter to arrange, owing to the distance of the Homes from Portsmouth, the difficulty in securing vacancies, and the cost of maintenance and railway fares. There

are several districts in the vicinity of Portsmouth, easily accessible by train or tram, where a children's home could be established conveniently and at little expense. Arrangements might possibly be made with some existing institution, but as we shall want accommodation for at least 40 children, I believe by far the most satisfactory course will be for the Education Committee to have their own residential school; possibly a suitable existing house may be purchased, which would avoid the necessity of building. I think it preferable for the Education Committee to own the school, as by this means they will have fuller control over it, and also, taking into consideration that a substantial grant may be secured from the Board of Education, it may also prove more economical. Provision for the establishment of residential county schools will be found in "The Elementary Education (Defective and Epileptic Children) Act, 1909."

Surgical Hospital for Tuberculous Children.—The last of the three institutions necessary for children is a hospital where children suffering from surgical tuberculosis, such as tuberculous disease of bones and joints, etc., can be treated. There are hundreds of children in this Borough who will pass through a childhood of suffering to a crippled adolescence, unless they are taken in hand at an early stage and proper treatment provided for them. From enquiries at the Royal Hospital I find that the number of children there treated (indoor and outdoor patients) suffering from tuberculous bones and joints during the past five years has averaged annually 275. A very large proportion of these can be successfully dealt with and trained to be useful citizens if suitable provision for prolonged treatment be afforded. For the children of Portsmouth I advise most strongly an arrangement by which they can be treated at the Lord Mayor Treloar Hospital at Alton, which is readily accessible by train from the town. The results that are obtained at this Hospital, under the skilled superintendence of Dr. Gauvain, are remarkable, and have received considerable attention throughout the country.* Not only are complete cures being obtained in a large number of cases, but—what is equally important—the little patients are educated and taught a trade, so that on

* The treatment practised at the Hospital is what is known as "conservative," that is to say, it is mostly by means of rest and splints, etc., and surgical operations, in the ordinary acceptance of the term, are rarely, if ever, resorted to. The following table of results, extracted from an article recently communicated to the *Lancet* by Dr. Gauvain, shows what can be accomplished by these methods.

	1908	1909	1910	1911	1912	Total
Number of Patients admitted	102	196	158	198	84	738
Number Tuberculous	80	193	156	194	84	707
Number other than Tuberculous	22	3	2	4	nil	31
Number Discharged	3	99	142	194	82	520
Number Tuberculous Discharged	2	77	139	190	81	489
Number other than Tuberculous Discharged ..	1	22	3	4	1	31
Number Tuberculous apparently Cured ..	2	68	133	174	78	455
Number Tuberculous who Died	nil	nil	nil	6	2	8
Number Tuberculous not improved	nil	6	6	4	nil	16
Number transferred to other hospitals or removed by parents before treatment completed ..	nil	3	nil	6	1	10
Number of recurrences re-admitted	nil	nil	1	4	5	10

leaving they are put in the way of earning their own living, and are thus in a position to provide themselves with proper nourishing food, which is a very important factor in enabling them to maintain good health. I believe the arrangement I have suggested will prove more beneficial and more economical than building a special hospital for children.

(7) **The Care Committee.** As regards the work of a Care Committee, Portsmouth is fortunate in already possessing a Care Committee which may, without exaggeration, be called a model organisation. As the work of this Committee is well-known and appreciated by members of the Council, it is unnecessary for me to enlarge upon its great value to the Borough, or upon the important part it must play in any scheme for the prevention and cure of tuberculosis.

Summary. The whole of the scheme will be under the control of the Health Committee, and will be administered by the Health Department. It is the view of the Local Government Board that " The organisation of schemes must be undertaken as part of the public health administration of the area to which they relate, and the Medical Officer of Health should be the chief executive and organising officer." I think both the Council and the Insurance Committee will agree, that if the fight against tuberculosis is to have the best chance of success, all efforts must be centralised and organised under one department, and obviously the Health Department is the one best qualified to deal with the subject. At the same time the Health Committee will endeavour to co-operate with any other voluntary agency whose assistance is likely to prove of value. Out of the principle enunciated in the National Insurance Act of providing treatment for insured persons affected with tuberculosis, has grown the broader and sounder view, that not only insured persons, but all persons suffering from the disease, should receive special attention. To this end, as will be seen from the financial portion of this report, the Government are prepared to contribute a considerable proportion of the expense. So far the Council have adopted the various means in their power, such as : the provision of a Dispensary, a Hospital at Milton, Shelters, Health Visitors, issuing printed instructions, the provision of sputum flasks, the provision of the bacteriological examination of sputum for medical men, etc ; now the opportunity has occurred of supplementing and extending their operations into a complete scheme of action, and it cannot be doubted that if the Council avail themselves of these new powers, an enormous reduction in the amount of disease, misery and death from tuberculosis must result.

FINANCE.

Having enumerated the various factors of the scheme for dealing with tuberculosis, I will endeavour, so far as possible, to give an estimate of the cost of putting this scheme into operation, and the sources from which the money for capital and maintenance charges will be available. Although

this scheme may at first glance seem somewhat expensive, I do not think that in practice it will be found to put a very heavy charge upon the rates. Part of the capital charges for construction will be borne by the Treasury, and a large proportion of the maintenance charges will, I trust, be received from the National Insurance funds and Exchequer, and a smaller part in grants from the Board of Education.

Dealing first with the initial cost of the suggested scheme :—

Dispensary. The total cost of building and equipping a Dispensary, providing the site which has been suggested in Victoria Park be obtained, is £850.

In accordance with Section 16 (1) (*b*) of the Finance Act, 1911, the sum of £1,500,000 is available for the provision of Sanatoria and other such institutions in the United Kingdom. This will be distributed by the Local Government Board, in accordance with the financial recommendations made by the Departmental Committee on Tuberculosis.* The recommendation as regards the provision of Dispensaries is that grants should be made up to four-fifths of the amount required, provided that this sum should generally not exceed £1 per 750 of the population of the district. Taking the population of Portsmouth at 240,000, we should therefore expect a grant of £320, leaving the sum of £530 to be found by the Council.

Hospital. If a Hospital for 40 beds be provided on the land already in the possession of the Corporation at Langstone, the cost should not exceed £165 per bed, including furnishing, or a total of £6,600. Here again the recommendation of the Departmental Committee on Tuberculosis which has been adopted by the Local Government Board, is that a capital grant should be made up to three-fifths of the cost per bed, provided that the total sum does not exceed £90 per bed. On this basis we should receive a grant of £3,600, leaving the sum of £3,000 to be found by the Council.

Sanatorium. As regards the provision of a Sanatorium, I have recommended that we should enter into an agreement with neighbouring authorities for a joint concern, in which we should be responsible for 30 beds. Allowing the cost of such a sanatorium to be £200 per bed, the cost to Portsmouth would be £6,000, and of this amount again we should be given a grant of £90 per bed, or £2,700, leaving £3,300 to be found by the Council.

Open-air School, etc. The cost of an Open-air School depends so much on the style of building and material employed, that I am not at present prepared to give a definite estimate. I think, however, it could be provided on land belonging to the Corporation for between £600 and £700. The cost, again,of a residential school and country home cannot be accurately estimated and so much depends upon whether a suitable building can be acquired

* Local Government Board Memorandum, 14th May, 1912.

or whether one has to be built. Again, instead of building or purchasing, there is the possibility that an arrangement may be come to with some such institution already existing, although I do not regard this as so satisfactory.

There will be no capital outlay in regard to a Hospital for the treatment of children with Surgical Tuberculosis, if my suggestion is adopted of maintaining 20 beds at the Lord Mayor Treloar Home at Alton.

Capital Expenditure. This concludes the capital expenditure, and as the money for the sanatorium beds will not probably be required for some little time, the total immediate outlay that will be needed for the scheme is as follows :—

	Cost	*Less* Govt. Grant.	Total Cost to Council.
Dispensary	£850	£320	£530
*Langstone Hospital	£6600	£3600	£3000
Open-air School (say)	—	—	£650
Residential School in Country ..	—	—	?
Total immediate outlay by Council			£4180

MAINTENANCE CHARGE.

Dispensary. As regards maintenance charges. The annual charge for the Dispensary I estimate as follows :—

Salary of Medical Officer	£500
Salary of Assistant Medical Officer	£300
Salary of Four Nurses at £80 to £100	£360
Salary of Secretary	£60
Cleaner at 15s. a week	£39
Lighting, Heating, Rates and Taxes	£50
Drugs, etc.	£120
Stationery, Books, and Sundries	£100
	£1529

For the Hospital at Langstone I estimate, without going into details, that it can be run at a cost of not exceeding 22s. per bed per week, or £2,288 per year. The cost of the 30 beds at the sanatorium should also not exceed 22s. each per week, or £1,726 per annum. If 20 beds be secured for children at the Lord Mayor Treloar Hospital at the same rate, 22s. per week, the cost of these will amount to £1,114 per annum.

* In connection with the erection of a Hospital at Langstone it will be necessary to provide elsewhere accommodation for Small-pox patients, unless the corner of this ground occupied by the Caretaker's house be utilized for this purpose. In any case there must be some additional expenditure for this purpose, even if it be possible, which is doubtful, to move the iron structure now utilized for a small-pox hospital.

The estimated total cost of maintenance therefore, leaving out of consideration the two items of the open-air school and the country residential school and home (for which I cannot at present estimate*) but including the cost of sanatorium, which will not arise for some time to come, is as follows :—

Dispensary	£1559
Langstone Hospital	£2288
Sanatorium	£1726
20 beds at Lord Mayor Treloar Hospital	£1144
Total	£6717

The whole of this amount, however, will not need to be provided out of the rates. There will be in the hands of the Insurance Committee 1/3 per head per insured person to expend on sanatorium benefit. It is estimated there will be about 60,000 insured persons in the Borough ; the total amount available for sanatorium benefit on this estimate will be £3,750. As the Council is preparing to give sanatorium benefit, I assume, that in accordance with the recommendation of the Local Government Board,† the Insurance Committee will hand this sum over to the Council, only retaining a small sum for domiciliary treatment, for which I have made no allowance. If, however, the recent suggestion made by the National Health Commissioners as regards domiciliary treatment be adopted, *i.e.*, that out of the 1/3 per insured person, 6d. be paid to the general practitioners for carrying out domiciliary treatment, it will only leave 9d. per insured person, or a total of £2,250 per annum. That is to say at least one-third of the total annual expenditure will be paid, not out of the rates,

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* A certain proportion, however, of the cost of maintenance of children at the residential and open-air schools will be paid by the Board of Education, as seen from the following extracts :

"25. The grant payable each year in respect of a certified *Boarding School* for defective or epileptic children is as follows :—

For each defective or epileptic child who has attended the school for not less than one month during the school year, and has received with due regularity efficient elementary education, including manual instruction or industrial training, a grant of 7s. may be allowed for each month of that part of the school year during which the name of the child has been on the books . . . .

26. (*a*) The grant payable each year in respect of a certified *Day School* or class for defective children is as follows :—

On account of instruction other than Manual Instruction, 50s. for each unit of average attendance.

On account of Manual Instruction :—

30s. for each unit of the average attendance of younger children, and 40s. for each unit of the average attendance of older children . . . ."

Board of Education's *Regulations Applicable to Schools for Blind, Deaf, Defective, and Epileptic Children*, 1909.

† In order to secure compliance with the terms of the Act, and at the same time to arrive at a complete scheme for the treatment of tuberculosis generally, it will be desirable that the Insurance Committees should extend sanatorium benefit in so far as institutional treatment is concerned to the dependants of insured persons, and should arrange, subject to the consent of the Insurance Commissioners, to pay over to the Local Authorities the sums available for institutional treatment, the latter being responsible for such treatment of all classes, whether insured or dependants of the insured or non-insured."

Extract from Circular of Local Government Board, Dec. 6th, 1912.

but out of the funds provided by the National Insurance Act for sanatorium benefit.

This however does not represent all the money outside of the rates that will be available. The National Insurance Act empowers Insurance Committees to provide sanatorium benefit for the dependants of insured persons, and the Act also provides that any estimated excess of expenditure over income may be met as to half by the Local Authority, and as to the other half by the Exchequer. The Government has, however, now gone a step further and decided that if a Local Authority provides sanatorium benefit not only for dependants of insured persons, but also for those who do not come within this class, that is to say, for the whole population of their district, the Exchequer will still pay one-half of the excess of the estimate of the expenditure over income. That is to say, that if the scheme I have detailed costs £6,700 per annum to administer, the Insurance Committee will contribute £2,250, leaving an estimated deficit of £4,450, and of this the Exchequer will pay £2,225, leaving the Council only £2,225 to pay.

Conclusion. I have endeavoured to present in the foregoing a scheme capable of dealing with all the persons suffering from tuberculosis in the Borough. I trust this will meet with the approval of the Council as regards the Borough generally; with the approval of the Local Insurance Committee, as regards insured persons and their dependants; and with the approval of the Education Committee, as regards children. If this be so, it will still be necessary to secure the approval of the Health Commission and of the Local Government Board before payment is made by the Insurance Committee or grants are given by the Exchequer. I think that for a complete scheme, having regard to the fact that it will not entail an estimated annual charge upon the rates for some years to come of more than £3,000, it may be regarded as an economical one.

The position to be faced is this: Obviously the Council must do something to combat tuberculosis, and whatever it does must cost money. If the Council decide to deal with the subject thoroughly and efficiently, considerable financial assistance will be received from the Government; on the other hand, if no efficient scheme is proposed, no grants will be received. In other words, to deal half-heartedly with tuberculosis in the Borough will cost not very much less than to secure the Government grants and deal with it thoroughly.

A. MEARNS FRASER,

Medical Officer of Health.

HEALTH DEPARTMENT,
TOWN HALL, PORTSMOUTH.
December, 1912.

TABLE XVI.

TABLE SHEWING DEATH-RATE FROM CONSUMPTION PER 10,000 POPULATION SINCE 1885.

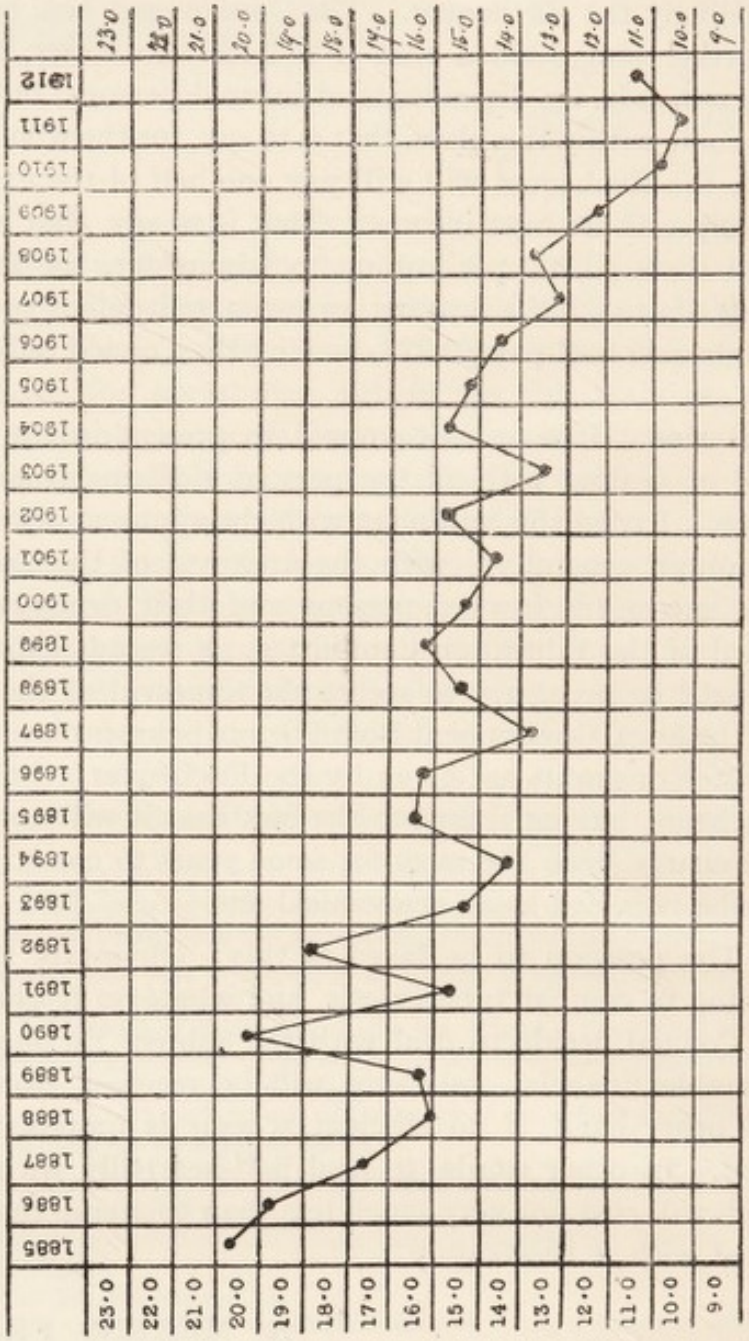


TABLE XVII.

Table showing the number of Deaths and Death-rates per 1000 living from TUBERCULAR DISEASES for Thirty Years (1879 to 1912).

Year	(1) Pulmonary Tuberculosis		(2) Tubercular Meningitis, Hydrocephalus Deaths	(3) Other forms of Tuberculosis Deaths	Totals of Cols. , 2 and 3	
	Deaths	Rate			Deaths	Rate
1879	271	2·05	44	58	102	·77
1880	234	1·74	49	81	130	·96
1881	275	2·14	44	61	105	·81
1882	269	2·07	33	67	100	·76
1883	262	1·96	41	72	113	·84
1884	292	2·12	34	62	96	·69
1885	290	2·06	36	54	90	·64
1886	285	1·98	38	85	123	·86
1887	261	1·77	41	95	136	·92
1888	240	1·60	38	90	128	·85
1889	251	1·63	35	93	128	·83
1890	319	2·03	37	57	94	·60
1891	252	1·57	41	86	127	·79
1892	308	1·89	31	51	82	·50
1893	254	1·53	32	59	91	·55
1894	241	1·43	21	50	71	·42
1895	280	1·64	43	50	93	·54
1896	283	1·63	51	55	106	·61
1897	245	1·38	39	33	72	·39
1898	277	1·54	37	57	94	·52
1899	295	1·61	40	64	104	·57
1900	286	1·53	42	53	95	·51
1901	278	1·47	37	91	128	·67
1902	308	1·58	31	51	82	·42
1903	269	1·35	35	34	69	·34
1904	321	1·58	44	32	76	·37
1905	314	1·52	42	25	67	·32
1906	306	1·45	38	36	74	·35
1907	282	1·31	47	36	83	·38
1908	300	1·36	39	38	77	·35
1909	272	1·21	41	33	74	·33
1910	249	1·09	40	23	63	·28
1911	239	1·02	36	23	59	·25
1912	267	1·13	30	77	107	·45

TABLE XVIII.

WEEKLY RETURN of cases of Infectious Diseases reported in accordance with the Infectious Disease (Notification) Acts, 1889 and 1899, during the year 1912.

Week ending	Small-pox	Scarlet Fever	Diphtheria	Fevers		Puerperal Fever	Erysipelas	Epidemic Cerebro Spinal Meningitis	Total
				Enteric	Continued				
1912									
January 6	..	..	16	14	1	..	..	7	..	38
,, 13	..	..	8	17	..	..	..	..	..	25
,, 20	..	..	14	9	1	..	..	2	..	26
,, 27	..	..	14	17	..	..	..	1	..	32
February 3	..	..	13	13	1	..	..	2	..	31
,, 10	..	..	13	28	1	1	1	4	..	48
,, 17	..	..	2	14	4	..	..	5	..	25
,, 24	..	..	13	14	..	..	1	4	..	32
March 2	..	..	7	19	..	..	..	3	..	29
,, 9	..	..	4	11	1	..	1	4	..	21
,, 16	..	..	10	23	2	..	..	1	..	36
,, 23	..	..	7	12	..	..	..	..	..	19
,, 30	..	..	5	23	2	..	..	1	..	31
April 6	..	..	7	17	2	..	..	1	..	27
,, 13	..	..	8	14	1	1	..	..	..	24
,, 20	..	..	78	10	..	..	..	1	..	89
,, 27	..	..	35	15	2	..	..	4	..	56
May 4	..	..	19	25	2	..	..	6	..	52
,, 11	..	..	23	26	2	..	..	2	..	53
,, 18	..	..	21	28	9	..	..	3	..	61
,, 25	..	..	10	12	5	..	..	3	..	30
June 1	..	..	16	16	9	..	..	1	..	42
,, 8	..	..	21	15	4	..	..	3	..	43
,, 15	..	..	14	18	5	..	..	2	..	39
,, 22	..	..	18	18	4	1	1	3	..	45
,, 29	..	..	18	20	3	..	..	2	..	43
July 6	..	..	11	21	4	..	..	1	..	37
,, 13	..	..	13	22	..	..	..	..	..	35
,, 20	..	..	14	13	3	..	..	..	..	30
,, 27	..	..	25	14	2	1	..	3	..	45
August 3	..	..	22	13	5	..	1	1	..	42
,, 10	..	..	18	18	1	..	..	..	..	37
,, 17	..	..	14	17	1	..	..	2	..	34
,, 24	..	..	14	14	4	..	..	3	..	35
,, 31	..	..	28	17	5	1	..	..	..	51
September 7	..	..	22	26	4	..	..	4	..	56
,, 14	..	..	42	25	4	..	..	1	..	72
,, 21	..	..	44	18	3	..	..	2	..	67
,, 28	..	..	55	32	4	..	..	4	..	95
October 5	..	..	58	18	1	..	..	5	..	82
,, 12	..	..	62	27	6	1	..	7	..	103
,, 19	..	..	61	44	4	..	1	5	..	115
,, 26	..	..	49	28	3	1	1	6	..	88
November 2	..	..	38	32	4	..	..	4	..	78
,, 9	..	..	59	26	2	..	..	10	..	97
,, 16	..	..	57	22	5	..	..	4	..	88
,, 23	..	..	59	34	2	..	..	1	..	96
,, 30	..	..	48	33	2	1	..	5	..	89
December 7	..	..	65	13	2	..	1	4	..	85
,, 14	..	..	37	28	..	..	..	5	..	70
,, 21	..	..	20	20	4	..	..	9	..	53
,, 28	..	..	19	15	.	..	..	1	..	35
Totals ..	..	..	1370	1038	136	8	8	152	..	2712

INFANTILE MORTALITY.—The total number of deaths of children under one year was 466 in 1912, giving an infantile mortality rate of 82 per 1,000 children born. This death-rate of 82 is the lowest on record in the town, the nearest approach to it being 96 in 1909. In 1911 the death rate was 126 per 1000, which means that there were 264 fewer deaths in 1912 than in the previous year. This great and satisfactory fall is largely due to the differences in the meteorological conditions, last year being cold and wet, while 1911 was hot and dry ; and on examining the causes of death the reduction is most evident in the number of deaths from summer diarrhoea which had found such perfect conditions for its spread in 1911. It will be remembered that the spread of the 1911 epidemic was ascribed to flies as the carrying agent. Certainly the facts seemed to warrant this conclusion, and it is worthy of note that in 1912, when we had no plague of flies, the weather conditions being all against them, there is a remarkable freedom from this disease, the deaths numbering 45 compared with 226 in 1911.

The period of the year in which we expect to get an epidemic of diarrhoea in infants, if it comes at all, is the third quarter. It was during this period that our 1911 epidemic prevailed, and it is during this quarter that the differences in meteorological conditions are most apparent.

From Table XXII. it will be noticed : (1) That the minimum weekly temperature did not on any occasion rise to 60°, which is required for the development of strong flies, and only twice did the maximum rise above 67°, viz., in the weeks ending July 13th and 20th. There was therefore no epidemic of flies. (2) That the rainfall during this quarter of this year was 10.19, which is large compared with 3.58 for the previous year, so the spread of dust must have been correspondingly less.

For these reasons then, in the third quarter of the year, the total number of deaths from diarrhoea in infants under one year was 19, compared with 194 in 1911.

DEATHS FROM INFANTILE DIARRHOEA.

1912	Under 1	1-2	2-5	Total
1st Quarter	9	1	.. ..	10
2nd Quarter	6	6	.. ..	12
3rd Quarter	19	2	1 ..	22
4th Quarter	11	3	.. ..	14
	45	12	1	58

It is noteworthy that all the year round some infants die from " diarrhoea." Thus in the first quarter of the year there were 9 deaths, in the second 6, and 11 in the fourth, making 45 in all under one year ; or if we include the first two years of life, 57 deaths.

This liability of children to diseases of the digestive tract is due, not to any one cause, such as the presence of flies, or bacteria, or a high temperature—though these doubtless all help in its spread—but is due more to the fact that the digestive tract, being proportionately more highly developed, in the infant, is more liable to be thrown out of order. These few isolated cases of diarrhoea should rather be looked on as individual results of dietetic errors, and must be distinguished from the acute infective " summer diarrhoea " which assumes epidemic proportions during a particular season of the year. In 1912 we had none of this—there was no infective " summer diarrhoea."

It is satisfactory to learn from Miss Monk's report that mothers are feeding their children more sensibly. She points out that " there has been a great decrease in giving bread and biscuits to young babies, the mothers in most cases being very anxious to follow instructions."

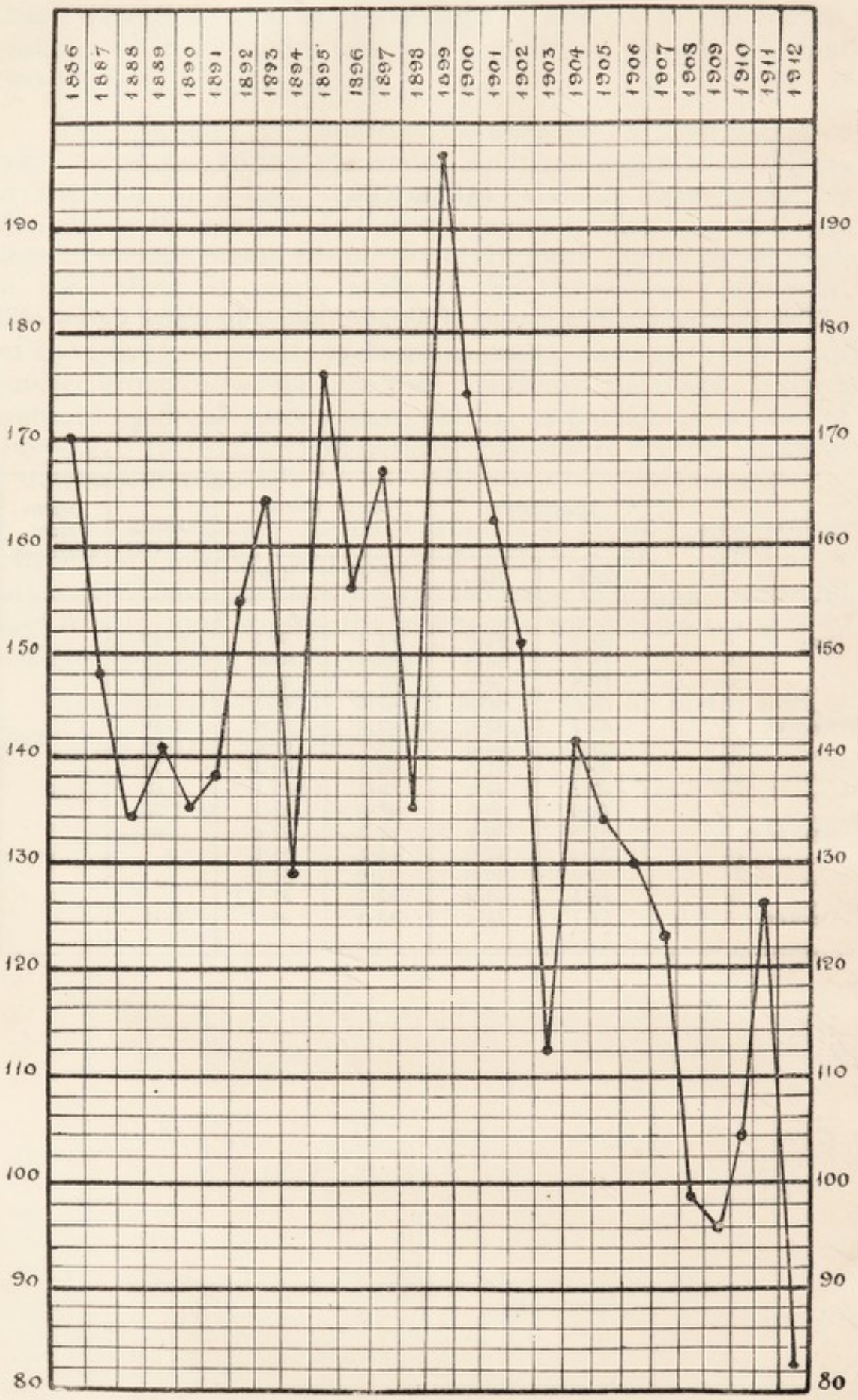
The Health Visitors visited 4,667 cases at birth, and of these only 69 were bottle-fed from birth.

TABLE XIX.

Table showing the Relationship of Temperature and Fatal Cases of Summer Diarrhœa.

Week ending 1912	Temperature		Earth Therm.		Rain in inches	Deaths from Diarrhoea
	Max.	Min.	1 ft.	4 ft.		
July 6 ..	66·4	54·0	61·4	59·3	·45	..
,, 13 ..	71·3	56·3	65·0	59·9	·15	2
,, 20 ..	77·5	59·1	68·4	61·7	·05	..
,, 27 ..	69·3	57·8	67·0	62·1	·41	1
August 3 ..	65·1	53·0	62·7	62·4	1·15	1
,, 10 ..	63·7	54·3	60·7	61·0	1·29	..
,, 17 ..	60·8	51·5	59·1	60·1	·76	1
,, 24 ..	62·8	54·2	60·1	59·9	1·67	3
,, 31 ..	64·0	50·5	59·8	59·1	1·55	..
September 7 ..	62·5	50·9	58·8	59·6	·01	3
,, 14 ..	59·4	47·9	56·5	58·6	..	6
,, 21 ..	62·6	49·8	57·0	58·0	..	1
,, 28 ..	59·1	45·9	53·7	57·2	..	3
October 5 ..	57·1	45·4	53·3	56·1	3·17	..

Chart showing number of Deaths under 1 year of age to 100 Births in Portsmouth, 1886—1912.



BACTERIOLOGY.—During the year I have made 1,162 bacteriological examinations in connection with suspected cases of disease. There has again been a considerable increase in the number of specimens sent in for examination in regard to the presence of tubercle bacilli. This is undoubtedly due to the greater interest now taken in regard to this disease and to the desire of medical practitioners to take advantage of all available methods for enabling them to come to an early and accurate diagnosis in persons suffering from affections of the chest. The particulars of the work, which now occupies a very large proportion of my time, are given in the following table.

Disease	Result		Total
	Positive	Negative	
Diphtheria	556	331	887
Tuberculosis	54	194	248
Enteric Fever	3	16	19
Other Diseases	5	3	8
Total	618	544	1162

WATER SUPPLY.—The supply of water by the Water Company continues to be satisfactory. We are now reaping the advantage of the excellent filter beds provided by the Company on Portsdown Hill, and during the whole year no sample has been taken which was not found to be clear and colourless. The periodic analyses by Mr. Arnaud, F.I.C., the Public Analyst, show that a high standard of purity was maintained. There can be no question that had it not been for the filter beds, the water supply during a considerable part of the year would have presented the cloudy, dirty appearance that always followed wet stormy weather. Now, however, at all times of the year the supply is pure, pleasant and abundant.

TABLE XX.

TABLE OF ANALYSES OF PUBLIC WATER SUPPLY DURING 1912 BY THE PUBLIC ANALYST.

(Results expressed in parts per 100,000.)

Date 1912	Source	Total Solid Residue	Volatile Solid Residue	Chlorine	Nitrogen as Nitrates	Total Hardness	Free or Saline Ammonia	Albuminoid or Organic Ammonia	Oxygen absorbed in 2 hours at 100° F.	Remarks
Jan. 30	Co.'s Main, Arundel St.	30.5	1.0	1.7	0.26	22.6	0	0	..	Clear and Colourless
Feb. 29	do.	30.0	2.0	1.7	0.28	22.2	0	.0015	..	do.
March 30	do.	31.0	2.0	1.7	0.30	22.0	0	0.0005	..	do.
April 27	do.	30.0	1.0	1.6	0.28	21.8	0	0	..	do.
May 31	do.	31.0	3.0	1.7	0.30	21.8	0	0	..	do.
June 12	do.	31.0	1.0	1.6	0.30	21.6	0	.001	..	do.
July 15	do.	31.0	1.0	1.7	0.30	21.6	.0005	.001	..	do.
Aug. 16	do.	30.0	2.0	1.7	0.32	21.8	..	..	..	do.
Sept. 25	do.	30.0	1.0	1.5	0.30	22.0	..	0.001	..	do.
Oct. 25	do.	28.0	2.0	1.6	0.28	21.0	0	0.0005	..	do.
Nov. 27	do.	30.0	2.0	1.6	0.30	21.0	..	0.0005	..	do.
Dec. 19	do.	31.0	2.0	1.6	0.28	21.0	..	0.0005	..	do.

GENERAL SANITARY SUPERVISION.—Particulars of the various matters dealt with under this head by the Inspectors will be found in the Chief Sanitary Inspector's Report. During the year 8,348 examinations of dwelling-houses were made, necessitating 10,775 re-inspections. Visits were paid to slaughter-houses (4,712), to cowsheds and milkshops (2,001), common lodging-houses (662), workshops (3,067), and also in connection with zymotic diseases, the Notification of Births Act, drainage of new houses, etc. The provision of flushing apparatus to water-closets was enforced on 789 premises.

1,140 samples of Food and Drugs were taken under the provisions of the Sale of Food and Drugs Acts, the principal being samples of milk (480) and butter (319). These were all submitted to the Public Analyst, and particulars as to the amount of adulteration will be found in his Annual Report, commencing on page 121.

Inspection over the Meat Supply of the Borough still includes the attendance at neighbouring cattle markets by an Inspector, a practice which enables us to exercise much better supervision, and has worked with great advantage. One person was convicted for exposing meat unfit for human food, and fines and costs amounting altogether to £9 6s. 6d. were inflicted.

CERTIFICATES FOR THE OCCUPATION OF NEW HOUSES.—One of the most important steps taken in connection with the administration of the Health Department during the past year, was the decision of the Council at its meeting in July, that in the future no new building intended for human habitation should be inhabited until it had been certified to be in every respect fit for human habitation.

Although the Council had possessed for a number of years the necessary* powers to prevent the occupation of new houses until so certified, these powers had never before been put into operation. The first occupation certificate under the Act was granted on August 8th last, and by the end of the year the number had reached 273.

The issue of these certificates marked a distinct advance in sanitary administration, and must exercise a beneficial

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* "No new building intended for human habitation shall be allowed by the owner thereof to be occupied, or be occupied by any such owner, until the house drainage has been made and completed, nor until such new building has been certified by the Medical Officer of Health and Borough Engineer, after examination, to be in their opinion in every respect fit for human occupation."—(*Portsmouth Corporation Act*, 1883, *Sec.* 24)

influence on the public health. The principal evil that it will prevent is the occupation of houses before they have had time to dry. It has frequently happened in the past that families have moved into new houses as soon as completed, and whilst the walls were not only damp, but actually wet. It is not sufficiently recognised that to live in a damp house is to run the most serious risk of ill-health ; personally I would far sooner live in a house with defective drainage than I would in a damp house ; the results from the latter are more insidious in their onset and more difficult to overcome. Dampness undoubtedly greatly favours the incidence of consumption, bronchitis, rheumatism, heart disease and diphtheria. Probably children are more susceptible to the ill effects of damp houses than adults.

The issue of these certificates being a new departure, it was only to be anticipated that the action of the Council would meet with a certain amount of opposition from those whose interests it was thought might thereby become injuriously affected. The opposition however has been very limited in character, and its immediate cause was the withholding the issue of certificates to builders in respect to certain houses which remained damp some time after completion. The dampness in these cases was undoubtedly due to the nature of the sand which had been used in making the plaster, and in some cases it was acknowledged that sea sand had been employed. This is a difficulty which can, of course, be easily prevented, and now that it is recognised in the building trade that certificates will not be issued as long as the houses are damp, the result will be that greater care will be exercised in the selection of the material employed, and I do not anticipate any further trouble in the matter. Indeed, provided due care is exercised to see that the certificates are only refused when houses are really unfit to live in, it is difficult to understand upon what grounds any objection to the principle of house certification can rest.

In this town, where so many of the working classes purchase their own houses, the action of the Council in issuing certificates of fitness is certain to prove a great boon to the small purchaser, who for the protection, both of his health and pocket, should insist upon the purchase being conditional upon the production by the vendor of the Council's certificate of occupation.

HOUSING OF THE WORKING CLASSES.—Although no houses have been closed during the year as unfit for human habitation, a considerable amount of attention has been paid to the houses of the working classes, action being taken principally under the Public Health Acts. The Unhealthy Area in Portsea has been entirely cleared, and the new street, to be called "Curzon Howe Road," was opened by the Mayor, Alderman Sir Scott Foster, on October 24th. It is expected that the majority of the houses (43 in all) will be completed during the present year. Owing to the cost of the first scheme which was adopted by the Council, a cheaper scheme will probably be adopted. This will house the same number of persons, but will not present such a pleasing aspect as the scheme originally decided upon. Housing of the Working Classes is not such a burning question in this town as in many others; indeed, I consider it very doubtful if there is a large town in the whole country which can equal Portsmouth in the provision of good class cottage property. There are a few districts where the houses are extremely dirty and insanitary; in these instances, however, the insanitary condition is not caused by faulty construction, but by the dirty habits of the tenants. In a population of nearly 250,000 there are certain to be found some persons—not necessarily amongst the poorest—whose houses are always in a filthy and insanitary condition. It is difficult to know what to do in such cases. If the houses are cleansed under notice they rapidly become in the same condition again, and it is not much use cleaning the houses unless the persons living in them and their clothing are also cleansed, and unless the tenants can be got to appreciate the advantages of cleanliness in home and person.

NOTIFICATION OF BIRTHS ACT, 1907. — This is the second year in which the provisions of the above Act have been in force in the Borough, and in connection with it the work of the Health Visitors, Miss Preston and Miss Weaver, has been very valuable. Altogether 5,549 births were notified during the year; of these 2,212 were attended by registered medical practitioners and 3,337 by midwives. The total number of visits paid by the Health Visitors has been 6,316; the first visit is usually paid about the tenth day. The advice that the Health Visitors are enabled to give has proved most valuable, their visits are welcomed in the homes, and already the results of their work are beginning to be seen. Particularly has their advice in regard to the feeding of babies proved of service, and it is found that there has been a considerable

decrease in the dangerous practice of giving bread and biscuits to young babies before they are sufficiently developed to digest such food. Considerable interest is taken by the mothers in ascertaining the weights of their babies, the regular increase in which is of course an indication of the good health of the baby and of the fact that its diet is suitable. In the booklet which I have prepared "Practical Hints on the Feeding and Management of Infants," copies of which are left at the houses where desired, a page is ruled for keeping a monthly record of the baby's weight. In a large number of instances this is carefully kept, month after month, and a number of babies appear at the Town Hall between 5 and 6 o'clock each evening to have their weight correctly taken.

I have referred elsewhere to the great reduction in infantile mortality in the Borough. I have no doubt that, although the meteorological conditions of last year were favourable to a low infantile mortality rate, yet this reduction must also in part be due to the constant visiting and the advice given by the Health Visitors. I am confident that the adoption of the Notification of Births Act and the appointment of Health Visitors have been thoroughly justified in their results ; these results appear to a certain extent in the death returns, but in addition there are the results seen in the children being healthy and strong, instead of weakly and ill-nourished, which, although they cannot be stated in figures, exist none the less certainly.

The Health Visitors have been endeavouring to get mothers to discontinue giving the babies "dummies" to suck, this however has not been attended with much success up to the present. The Visitors report that the babies who are given "dummies" to suck seem more frequently to get decayed teeth than those who are not. The use of these "dummies" is harmful in many ways, and the danger is increased when the "dummies" get dirty through falling on the floor, or get contaminated in other ways. If "dummies" are given they ought to be carefully washed in hot water several times a day.

The visits have supplied fresh evidence of the necessity for the provision of a maternity hospital for the poorer members of the community. As reported however some time ago, the Local Government Board when approached on the subject stated their opinion that the Council do not possess powers under the Public Health Acts to provide such an institution, so presumably nothing further can be done in this matter.

MIDWIVES ACT, 1902.—The number of registered midwives practising in the Borough last year was 51. The duties of inspection have been efficiently carried out by Miss Monk, and it has not been necessary to report any midwife. 3,337 cases of confinement, out of a total of 5,580 births, were attended by midwives ; in 233 cases a medical man was sent for ; the number of still-births reported was 69, and there were two cases notified of puerperal fever.

Of the midwives practising in the Borough there are now only 9 who have not passed a qualifying examination in midwifery or had a special course of training in their profession.

The passing of the Midwives Act in 1902 has effected an enormous improvement in the class of attention that women of the working classes are now able to secure. The ignorant "Sairey Gamp" class of midwife is rapidly disappearing and is being replaced by a midwife who is educated, clean, capable and skilled. This has proved a very useful Act, and one which cannot fail to exercise a beneficial influence.

A list of the names and addresses of the registered midwives is given on the following pages.

ROLL OF MIDWIVES PRACTISING WITHIN THE BOROUGH OF PORTSMOUTH.

	Surname.	Christian Name.	Address.	No. of Cert.	Date of Certificate.	Date of Notice.
1	Barnes ..	Eliza L. ..	226 Sultan Road, Buckland ..	23295	April 26th, '06	Dec. 31st, 1912
2	Barnes ..	Elizabeth ..	260 Arundel Street, Fratton ..	27020	Oct. 15th, '08	Ditto
3	Blake ..	Ellen Maria ..	18 Chetwynd Road, Southsea ..	27693	Dec. 16th, '08	Dec. 30th, 1912
4	Bone ..	Eliza ..	62a Ivy Street, Southsea ..	8025	Sept. 29th, '04	Ditto
5	Burgess ..	Alice J. ..	Hope House, Hudson Road, S'sea	13412	Feb. 23rd, '05	Dec. 28th, 1912
6	Bullen ..	Rose ..	27 Bath Square, Portsmouth ..	20124	April 27th, '05	Jan. 1st, 1913
7	Challis ..	Kate ..	47 Aylesbury Road, Copnor ..	4208	April 28th, '04	December 31st, 1912
8	Cooper ..	Annie Eliza .	300 Queen's Road, Copnor ..	36435	Aug. 7th, '12	Ditto
9	Cranley ..	Cecilia ..	206 Somers Road, Southsea ..	4039	April 28th, '04	Ditto
10	Dyson ..	Susannah ..	25 Gladys Avenue, North End ..	17788	Mar. 23rd, '05	Ditto
11	Elliott ..	Mary Ann Leah ..	128 Prince Albert Road ..	5487	June 30th, '04	Jan. 1st, 1913
12	Feehally ..	Charlotte Mary ..	227 Lake Road, Landport ..	3853	April 28th, '04	Ditto
13	Flynn	Ida ..	5 Addison Road, Southsea ..	19308	April 27th, '05	Dec. 30th, 1912
14	Freeman ..	Florence Harriett ..	79 Commercial Road ..	29833	Dec. 17th, '09	January 1st, 1913
15	Golding ..	Mary ..	10 Henrietta Street, Southsea ..	17503	Mar. 23rd, '05	December 28th, 1912
16	Gray ..	Eliza Ann ..	35 Herbert Street, Mile End ..	11585	Jan. 26th, '05	December 31st, 1912
17	Gwyther ..	Ada Lavinia ..	232 Chichester Road, North End ..	23045	Feb. 22nd, '06	January 1st, 1913
18	Harding ..	Mary Jane ..	264 Twyford Avenue, Stamshaw ..	4030	April 28th, '04	December 29th, 1912
19	Hayes ..	Annie ..	105 Toronto Road, Buckland ..	15559	Mar. 23rd, '05	December 31st, 1912
20	Hayes ..	Alice Emma ..	Bridge House, Copnor Bdg, Copnor	12652	Jan. 26th, 05	February 5th, 1913
21	Holloway ..	Mary ..	47 Mafeking Road, Eastney ..	6226	July 21st, '04	January 6th, 1913
22	Humphrey ..	Eliza Ann ..	42 Simpson Road, Stamshaw ..	9290	Oct. 27th, '04	January 1st, 1913
23	Illsley ..	Marion ..	42 Queen's Street, Portsea ..	36881	Oct. 28th, '12	January 13th, 1913
24	Jago ..	Clara Sarah ..	83 Cottage Grove, Southsea ..	23268	Feb. 22nd, '06	January 1st, 1913

25	Jeffrey ..	Jane Elizabeth ..	219 St. Augustine Rd., E. Southsea	10663	Dec. 22nd, '04	January 6th, 1913
26	Kean ..	Lucy Rowe ..	133 Eastfield Road, Southsea ..	31908	Sept. 30th, '10	December 31st, 1912
27	Kerby ..	Charlotte ..	2 Highland Street, Eastney ..	11214	Dec. 22nd, '04	Ditto
28	Langstreeth ..	Maria ..	35 Gold Street, Southsea ..	14211	Feb. 23rd, '05	Ditto
29	Lawrence ..	Catherine ..	135 Powerscourt Road, North End	2640	Mar. 24th, '04	January 1st, 1913
30	Maxfield ..	Elizabeth ..	64 Shearer Road, Buckland ..	3625	April 28th, '04	December 28th, 1912
31	Mills ..	Catherine ..	" Bold Forester," Albert Road, Southsea	3900	April 28th, '04	December 24th, 1911
32	Morey ..	Henrietta ..	61 Gladys Avenue, North End ..	35040	Dec. 19th, '11	January 9th, 1913
33	Murley ..	Mary Ann ..	28 Cumberland Street, Portsea ..	9322	Oct. 27th, '04	December 21st, 1912
34	Musgrove ..	Lily ..	1 Collins Road, E. Southsea ..	36968	Oct. 28th, '12	January 1st, 1913
35	Parkington ..	E. A. ..	61 Milton Road ..	34248	Aug. 8th, '11	January 3rd, 1913
36	Paul ..	Margaret ..	122 Twyford Avenue, Stamshaw ..	35808	May 2nd, '12	December 31st, 1912
37	Pennington ..	Laura ..	35 Delamere Road, Southsea ..	12691	Jan. 26th, '05	January 2nd, 1913
38	Pigg ..	Mary Ann ..	21 Montgomerie Road, Southsea ..	15662	Mar. 23rd, '05	Dec. 30th, 1912
39	Ricketts ..	Marion ..	5 Regent Street, Mile End ..	8755	Oct. 27th, '04	December 31st, 1912
40	Scholfield ..	Jane Ann ..	22 Besant Road, Landport ..	28886	Jan. 19th, '09	Ditto
41	Silvester ..	Ann ..	23 Derby Road, Stamshaw ..	11818	Jan. 26th, '05	January 1st, 1913
42	Skinner ..	Martha L. ..	41 Sydenham Terrace, Fratton ..	9997	Nov. 24th, '04	December 31st, 1912
43	Taylor ..	Lily Mary ..	3 Posbrook Road, Milton ..	18246	April 27th, '05	January 2nd, 1913
44	Tomes ..	Ellen ..	16 St. George's Square, Portsea ..	15515	Mar. 25th, '05	January 1st, 1913
45	Trowbridge ..	Edith Mary ..	1 Collins Road, E. Southsea ..	22860	Nov. 23rd, '05	December 30th, 1912
46	Walker ..	Elizabeth A. J. ..	68 Folkestone Road, Copnor ..	39256	Aug. 9th, '10	January 1st, 1913
47	Watson ..	Ada Jones ..	64 Chichester Road, North End ..	9266	Oct. 27th, '04	December 31st, 1912
48	Westropp ..	Rebecca ..	17 Exeter Road, E. Southsea ..	11514	Jan. 26th, '05	December 30th, 1912
49	Wheeler ..	Laura ..	4 Jacob's Terrace, Aylward Street, Portsea	17931	Mar. 23rd, '05	January 1st, 1913
50	Withers ..	Amelia Ann ..	202 Westfield Road, Eastney ..	10422	Nov. 24th, '04	December 30th, 1912
51	Le Mettez ..	Adele E. ..	44 Beresord Road, North End ..	22728	Nov. 23rd, '05	February 15th, 1913

SCHOOL HYGIENE.—Considerable progress has been made in connection with the medical inspection and treatment of school children. The excellent premises which have been secured by the Council for a School Clinic in Victoria Road North were opened in September, and since that time such children as were unable to secure the necessary medical attention have been treated at the Clinic. There are provided an ophthalmic and dental clinic in addition to the general clinic. A whole time Dental Surgeon and a part time Ophthalmic Surgeon (one day a week) have been appointed, and very good work is being done. Steps are now being taken for the establishment of Care Committees.

Particulars of the work done in regard to medical inspection and treatment will be found in the Report of the School Medical Officer, Dr. Victor Blake.

Further important measures are now being considered by the Education Committee, namely, the provision of an Open-air School for delicate children ; the provision of a Home in the Country for anaemic and tubercular children ; and the securing of beds in a children's surgical hospital for the treatment of children afflicted with tubercular joints and abcesses. When these have been provided I think it will be admitted that the arrangements for the care of the school children in the Borough are very satisfactory.

FACTORY AND WORKSHOPS ACT.—The inspection of Workshops and the houses of out-workers has been regularly carried out by Inspector Gray, the places where females are employed being visited by Miss Monk. The particulars of the visits and the nuisances abated will be found in the following tables.

FACTORIES, WORKSHOPS, WORKPLACES AND HOMEWORK.

1.—INSPECTION.

Premises	Number of		
	Inspections	Written Notices	Prosecutions
FACTORIES (Including Factory Laundries)	327	27	—
WORKSHOPS (Including Workshop Laundries)	2214	158	—
WORKPLACES (Other than Outworkers' premises included in Part 3 of this Report)	530	36	—
TOTAL	3071	221	—

2.—DEFECTS FOUND.

Particulars	Number of Defects			Number of Prosecutions
	Found	Remedied	Referred to H.M. Inspector	
Nuisances under the Public Health Acts :—				
Want of Cleanliness	64	64	—	—
Want of Ventilation	4	4	—	—
Overcrowding	4	4	—	—
Want of drainage of floors	2	2	—	—
Other Nuisances	236	228	—	—
Sanitary Accommodation (insufficient)	5	5	—	—
Sanitary Accommodation (unsuitable or defective)	1	..	—	—
Sanitary Accommodation (not separate for sexes)	3	2	—	—
Offences under the Factory and Workshop Act :—				
Illegal occupation of underground bakehouse (s. 101)	—	—	—	—
Breach of special sanitary requirements for bakehouses (ss. 97 to 100)	21	21	—	—
Other Offences (Excluding offences relating to outwork which are included in Part 3 of this Report)	—	—	—	—
TOTAL	340	330	—	—

3.—HOMEWORK.

NATURE OF WORK	OUTWORKERS' LISTS, SECTION 107									OUTWORK IN UNWHOLESOME PREMISES, SEC. 108			OUTWORK IN INFECTED PREMISES SECTIONS 109, 110		
	Lists received from Employers						Notices served on Occupiers as to keeping or sending lists	Prosecutions							
	Sending Twice in the year			Sending Once in the year											
	Lists	Outworkers		Lists	Outworkers			Failing to keep or permit inspection of lists	Failing to send lists	Instances	Notices served	Prosecutions	Instances	Orders made (S. 110)	Prosecutions (Ss. 109, 110)
		Contractors	Workmen		Contractors	Workmen									
Wearing Apparel—															
(1) making, etc. ..	106	351	1556	33	37	121	..	..	..	..	..	..	7	..	..
(2) cleaning and washing	2	6	2	..	..	..	..	..	..	..	..	..	..	..	..
Household Linen ..	..	..	2	..	..	..									
Furniture and Upholstery	..	2	..	1		1									
Umbrellas, etc. ..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..
Paper Bags and Boxes ..	2	..	4	..											
TOTAL	110	359	1566	34	37	122	..	..	..	..	..	..	7	..	..

4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of year	Number
Bakehouses	178
Dress and Mantle Makers	592
Milliners	183
Tailors	579
Other Workshops	765
Total number of workshops on Register ..	2297

5.—OTHER MATTERS.

Class	Number
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (s. 133) ..	59
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5) — Notified by H.M. Inspector	10
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5) — Reports (of action taken) sent to H.M. Inspector ..	.. 10
Other	5
Underground Bakehouses (s. 101) :—	
Certificates granted during the year	..
In use at the end of the year	3

NUISANCES IN RESPECT OF WORKSHOPS, WORKPLACES, &c., 1912

Drains Repaired	23
,, Cleansed	12
Workshops and Workplaces Cleansed	64
,, ,, ,, Ventilated	2
Bakehouses Cleansed	21
Overcrowding in Workshops discontinued	4
Sanitary Accommodation provided	5
Separate Sanitary Accommodation for Sexes provided	3
W.C. Fittings Repaired	33
Yard Paving ,, ...	47
Spouting ,, ...	93
Floors ,, ...	7
,, Drained	2
Roofs Repaired	43
New W.C. Pans provided	41
Flushing Cisterns to Water Closets provided	71
Water Closets Ventilated	2
,, ,, Cleansed	4
Ventilating Shafts Raised or Repaired	2
Yards and Stables Cleansed	4
Manure and Refuse Removed	2
Smoke Nuisances abated	2
Other ,, ,, ...	22
Total ..	509

METEOROLOGICAL OBSERVATIONS IN PORTSMOUTH AND SOUTHSEA

During the Year 1912.

STATIONS SITUATED IN VICTORIA PARK AND SOUTHSEA ESPLANADE.

Latitude 50° 48′ 4″ N. Longitude 1′ 6″ W.

To A. MEARNS FRASER, ESQ., M.D.,
Medical Officer of Health, Portsmouth.

SIR,

I beg to submit my report on the meteorological conditions experienced in Portsmouth during the year 1912.

The atmospheric changes were on the whole most erratic and disappointing ; a cold summer, irregularly rainy, with scanty sunshine. There were many, and at times, very severe storms, especially during the month of August. This month was a most unsettled one, with a low temperature, squally days, deficiency of sunshine, and an excess of rain of no less than 3.59 inches above the normal ; rain fell on every day but three during the month. The total rainfall for the whole year was 31.9. The highest day temperature reached was 89.5° F., on July 15th ; the mean temperature for the year was 51.4° F, or 0.94° above the normal. There were 1,560 hours and 40 minutes of bright sunshine, or 547 hours less than during the previous year. Although the amount of sunshine was small there were only ten stations out of the 117 in England, Ireland and Scoltand that shew a larger percentage than was recorded in Portsmouth and Southsea. The mean pressure of the barometer (29.935) was below the normal, the highest reading being 30.616 on October 4th, and the lowest 29.049 on February 8th. Very marked variations in the temperature occurred during the Solar Eclipse on April 17th, the air temperature dropping 5½° and the Solar radiation 43°, also during the eclipse the strength of wind increased at least 10 miles an hour. During the year the instruments at the station have been examined by the Officials at the Meteorological Office, and telegraphic weather reports have been forwarded each evening to the Meteorological

Office and daily reports furnished to the local press. I herewith append summaries of the statistics for each week, month and for the whole year, together with other Meteorological tables.

I am, Sir,

Your obedient servant,

C. W. HEARN,

Meteorological Observer.

SUMMARY OF METEOROLOGICAL STATISTICS, 1912.

Barometer.—The mean barometric pressure for the year was below the normal, being only 29.935. The highest observed reading, corrected to sea-level, was 30.616 on October 4th, and the lowest 29.049 on February 8th.

Temperature.—The mean temperature in the shade was 51.4° F., or 0.94° above the normal.

MAXIMUM.—The mean maximum temperature in the shade was 57.1° F., the highest being 89.5° F. on July 15th.

MINIMUM.—The mean minimum temperature was 45.8° F., the lowest being 20° on February 3rd.

MAXIMUM IN THE SUN.—The mean maximum temperature in the sun was 97.3° F., the highest being 122° on June 11th.

MINIMUM ON GRASS.—The mean minimum temperature on the grass was 41.5° F., the lowest being 12° F. on February 3rd.

Bright Sunshine.—The amount of sunshine registered by the Campbell-Stokes Recorder amounted to 1,560 hours and 40 minutes. The greatest amount registered on one day was 13 hours 48 minutes on June 25th.

Frosts.—The minimum thermometer in the shade, four feet above the ground, fell to and below freezing point on 14 days, and that on the ground on 58 occasions.

Humidity.—The mean humidity of the air (Saturation 100) was 80.4.

Rainfall.—The total rainfall was 31.94 inches, or 4.41 above the average. The greatest fall of rain in 24 hours was 1.60 inches on September 29th.

Snow.—Snow fell on three occasions, Hail on three.

Thunder and Thunder Storms occurred on six occasions.

TABL

MONTHLY WEATHE

Month	Barometer — Mean at 32° F. at Level and Latitude of Station	AIR TEMPERATURE								HYGROMETER		BRIGHT SUNSHIN	
		Mean of		Mean of A and B	Diff. from Normal	Absolute Maximum and Minimum				Dry Bulb	Humidity	Total in hours	
		A Max.	B Min.			Max.	Day	Min.	Day				
Jan. ..	29.942	46	38.1	42.1	..	52	9th	28	30th	41.9	90	H. M. 34 40	
Feb. ..	29.688	48	39.6	43.8	+3.2	55	28th	20	3rd	43.6	87	57 46	
Mar. ..	29.762	52.4	43	47.7	+4.7	58	24th 26th 27th	36	20th	47.4	85	116 13	
April ..	30.156	58.8	42	50.4	+2.9	68	21st	32	12th	51.6	71	273 55	
May ..	29.993	63.3	49.7	56.5	+3.5	72	12th	43	1st	58	73	202 52	
June ..	29.859	64.3	52.8	58.6	−0.4	73	22nd	47	3rd	60.1	75	214 1	
July ..	29.934	70.7	56.8	63.8	+1.4	90	15th	49	19th	65.1	73	174.50	
Aug. ..	29.784	63.1	52.7	57.9	−4.5	68	30th	44	28th	58.8	79	120 50	
Sept. ..	30.161	61	48.9	55	−3.5	67	4th	43	10th and 25th	55.6	76	138 10	
Oct. ..	29.950	56.7	42.7	49.7	−1.6	63	13th	34	25th	50	84	147 40	
Nov. ..	30.027	49.7	40.7	45.2	−0.2	58	7th	32	28th	45.1	85	43 28	
Dec. ..	29.969	51.1	42.7	46.9	+5.8	55	15th	27	1st	47.5	87	36 1	
Totals	359.225	685.1	549.7	617.6	+11.3					624.6	965	1560.	
Means	29.935	57.1	45.8	51.4	+ .94	90°	July15	20°	Feb. 3	52.0	80.4		

XI.

EPORT, 1912.

UD o)	RAIN				EARTH TEMPERATURE		WEATHER No. of days of								WIND									
an n- nt	Total fall	Diff. from Normal	Most in a day		At 1 foot deep	At 4 foot deep	Snow	Hail	Thunderstorm	Clear Sky	Overcast	Fog	Ground frost	Wind-force 8 and above	No. of Observations at 9 am, 3 pm, and 6 pm.									
			Amount	Day											Forces 4-7	Calm	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
6	3.60	+1.11	.86	17th	43.2	47.0	..	1	..	6	21	3	11	..	40	..	6	9	9	21	12	9	9	18
2	1.92	— .10	.44	22nd	42.2	44.5	2	..	..	9	14	..	7	..	48	..	9	3	3	15	18	15	15	9
6	3.79	+2.05	.72	4th	46.6	47.4	..	4	2	4	16	1	3	..	60	..	3	..	3	..	12	15	30	30
7	.12	—1.53	.10	9th	50.9	49.9	1	..	..	16	2	..	5	..	72	..	9	15	21	9	9	..	6	21
3	1.08	—0.48	.24	7th	58.2	54.4	..	..	..	9	9	..	..	..	51	..	9	6	6	12	3	12	27	18
7	3.00	+1.09	.77	7th	61.2	57.7	..	..	2	2	8	..	..	..	72	..	..	6	..	12	3	21	33	15
1	1.70	—0.55	.33	2nd	65.4	61.0	..	..	3	7	6	..	..	..	63	..	24	3	12	3	18	15	15	3
4	5.87	+3.59	.94	25th	60.0	60.3	..	..	1	5	11	..	..	..	69	..	3	3	..	3	3	18	36	27
3	2.62	+0.08	1.60	29th	56.4	58.2	..	..	1	6	8	..	..	..	69	..	15	12	9	18	..	6	..	30
3	2.91	—0.49	.64	28th	50.1	53.8	..	..	..	14	12	3	6	..	24	..	6	15	6	18	9	9	9	21
)	1.76	—1.40	.46	28th	46.5	50.6	..	..	..	6	16	1	6	..	36	..	21	9	..	..	..	12	6	42
5	3.59	+1.04	.65	25th	45.9	48.2	..	..	..	5	20	..	4	..	57	..	3	..	..	3	3	33	33	18
3	31.96	+4.41			626.6	633.0	3	5	9	89	143	8	42	..	..	..	108	81	69	114	90	165	219	252
)	2.66	+ .37	1.60	Sep 29	52.2	61.1																		

RAINFALL.

The following table shows the total Rainfall and the number of days on which rain fell during each month, together with the greatest fall in 24 hours during the year 1912.

1912	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	3·59	19	·86	17th
February	1·91	19	·44	22nd
March	3·78	19	·72	4th
April	·12	2	·10	9th
May	1·08	11	·24	7th
June	3·00	17	·77	7th
July	1·70	13	·33	2nd
August	5·87	27	·94	25th
September	2·62	3	1·60	29th
October	2·91	12	·64	28th
November	1·76	12	·46	28th
December	3·59	20	·65	25th
Total	31·94	174	1·60	Sept. 29th

The following table shows the total Rainfall for the past 20 years.

Year	Total rainfall in inches	Number of rainy days	Greatest fall in 24 hours	Date of greatest fall
1892	23·27	146	1·11	Aug. 18th
1893	23·15	157	0·88	July 4th
1894	35·88	187	1·78	Nov. 11th
1895	27·60	147	1·17	Oct. 30th
1896	25·54	156	1·31	Sept. 2nd
1897	28·87	163	1·13	Aug. 26th
1898	22·66	142	1·45	Nov. 23rd
1899	25·63	118	3·25*	July 23rd
1900	28·40	171	0·98	Jan. 6th
1901	24·31	131	1·30	June 30th
1902	24·22	148	1·14	Aug. 18th
1903	35·18	181	1 80	Sept. 4th
1904	26·70	177	1·36	May 20th
1905	24·05	153	2·35	June 5th
1906	28·74	161	1·85	Jan 2nd
1907	25·33	167	1·12	Oct. 14th
1908	20·495	144	0.95	,, 18th
1909	32·585	160	1·87	,, 26th
1910	31·36	168	1·32	,, 11th
1911	30·06	140	1·40	Aug.22 & Oct.24
Means (20 years)	27·19	155	Greatest fall in 24 hours 3·25	July 23rd 1899
1912	31·94	174	1·60	Sept. 29th

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

REGISTER OF DAILY RAINFALL IN 1912.

Kept at Portsmouth, in the County of Hampshire. Lat. 50° 47′ 4″ N.; Long. 1° 6 W.

RAIN GAUGE.—Diameter, 5-in. Height of top above Ground, 1-ft.; Height of top above Sea Level 18 ft.

Time of Observation—9 a.m.

Date	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
1	..	..	·12	..	·01	.12	·18	..	·01	·56	..	·23
2	..	..	·35	..	·00	..	·33	..	..	..	..	..
3	·02	..	·02	..	..	·20	·03	·60	..	..	..	..
4	·14	·06	·72	..	..	27	..	.04	..	..	·28	..
5	.28	·035	·15	..	·01	..	..	.32	..	..	·01	·04
6	·41	.02	..	..	·17	·01	..	49	..	..	..	·15
7	·03	·01	..	..	·24	·77	..	·03	..	..	..	·06
8	·44	·29	·28	·02	..	·02	..	·10	..	..	..	..
9	.02	·13	·09	·10	..	.03	·08	·13	..	..	..	·11
10	·00	.04	..	..	..	..	..	·18	..	..	·06	·30
11	·07	·21	..	..	..	·10	..	·06	..	..	·01	.22
12	·015	·06	·09	..	·20	.35	·05	26	..	..	..	·00
13	..	.05	·01	..	..	..	·02	·02	..	..	·00	.06
14	·03	..	..	..	02	..	..	10	..	.02	..	·02
15	.01	·08	·20	..	·06	·58	..	·00	..	..	·00	·29
16	·27	.00	·15	..	..	·05	..	·12	..	..	·10	..
17	·86	..	·29	..	·12	·08	..	.20	..	..	..	·11
18	·08	..	.16	..	..	..	..	·17	..	..	..	·15
19	·08	·05	·15	..	..	·02	·05	.40	..	..	·01	..
20	..	·00	45	..	..	..	..	.10	..	·45	·05	..
21	..	·11	.06	..	·12	..	..	·11	..	.08	..	..
22	·10	·44	.075	..	..	..	..	·29	..	..	..	·06
23	·47	·10	·22	..	·07	..	..	·49	..	·06	.12	.08
24	·11	.05	..	..	..	..	..	·11	..	..	..	.19
25	·16	..	..	..	..	·28	..	·94	..	.08	·30	·65
26	..	·03	..	..	..	.03	.11	.16	..	·37	·35	·19
27	..	·00	..	..	..	·07	·30	..	..	·18	..	·53
28	..	·05	..	..	..	·02	·15	·27	..	·54	·46	·13
29	..	·10	..	..	..	..	·12	·03	1·60	·20	·01	..
30	..	..	..	..	·06	..	·04	·06	1.01	·17	..	..
31	..	..	·20	..	..	..	24	·09	..	·10	..	·02
Totals	3·595	1·915	3·785	·12	1·08	3.00	1·70	5·87	2·62	2·91	1·76	3·59
Total from Jan.1	3·595	5·510	9·295	9·415	10·495	13.495	15.195	21.065	23·685	26·595	28·355	31·945

TABLE

ABSTRACT OF METEOROLOGICAL OBSERVATIONS made

DATE — Week ending	Barometer reduced to Sea Level and 32° F.	TEMPERATURE								
		IN SHADE						IN SUN	ON GRASS	
	Mean 9 a.m.	Mean 9 a.m.	Mean Max.	Mean Min.	Mean of Max. and Min.	Highest Max.	Lowest Min.	Black Bulb in vacuo. Mean	Mean Min.	Lowest Min.
Jan. 6	30·082	46·4	49·1	43·8	46·4	51	39	62·5	39·7	35
,, 13	29·879	42·8	48·8	36·8	42·8	52·3	29·5	66·6	32·3	23·5
,, 20	29·914	43·3	46·6	40·0	43·3	50·5	33·5	60·5	37·8	29
,, 27	29·836	41·0	44·2	38·0	41·1	47	33·7	60·6	34·9	29
Feb. 3	29·962	31·0	37·1	27·7	32·4	41	20	70	20·4	12
,, 10	29·287	40·8	46·2	35·3	40·7	51·7	23·5	75·4	30·9	19
,, 17	29·810	45·3	48·9	42	45·4	51·3	40	81	38·7	33
,, 24	29·809	47·1	50·4	43·5	46·9	52·5	34	75·2	40·7	34
March 2	29·685	48·9	53·2	45·6	49·4	55·3	35·5	96·2	41·5	26
,, 9	29·663	46·4	51·9	42	46·9	53·3	36·8	101·4	36·8	28
,, 16	30·020	46·3	50·9	41·7	46·3	55·3	37	94·7	38	28·5
,, 23	29·325	45·7	51·2	41·6	46·4	53	36	100·5	36	30·5
,, 30	30·118	50·6	55·7	45·8	50·7	58	39	103	43·3	34
April 6	30·199	49·1	56·1	42·7	49·4	65	34·5	105·4	37·9	30·4
,, 13	30·102	47·1	54·1	40·8	47·4	55	32	113·3	35·6	24·5
,, 20	30·196	52·1	58·2	40·8	49·5	61·5	37·5	110·7	33·5	28
,, 27	30·191	58	65·7	44·4	55·0	67·7	39·5	114·3	38·2	33
May 4	30·108	52·7	60·1	43·6	51·8	64	39	114·6	37·8	32·5
,, 11	30·146	59·9	64·4	51·7	58·0	70	48	115·5	49·6	43
,, 18	29·907	57·8	62·8	51·2	57·0	72	46	116·3	46·7	42
,, 25	29·939	56	61·4	49·3	55·3	63·5	44	118·5	44	35·5
June 1	29·963	60·1	65·2	49·0	57·1	71	46·5	122·0	42·8	38
,, 8	29·670	57·3	60·7	49·7	55·2	64	46·5	116·2	45·6	38
,, 15	29·904	60·5	64·8	52·6	58·7	71	50	122·2	48·9	44
,, 22	29·999	61·6	66·4	53	59·7	73	50	121·2	49·4	46
,, 29	29·958	61·1	66·0	56·3	61·1	69	52	122	51·5	45
July 6	30·000	61·4	66	54	60·2	73	52	117·5	51·3	46
,, 13	30·008	65·9	71·4	56·3	63·8	75	52	122·3	52·3	45·5
,, 20	30·004	69	77·4	59·1	68·3	89·5	49	124·1	55·2	45
,, 27	29·921	65·2	69·3	57·8	63·5	72	55·5	118·5	52·4	49
Aug. 3	29·732	61·3	65·1	53	59	67	46	115·9	48·9	39
,, 10	29·700	58·9	63·7	54·3	59	65·5	50	114·5	51·3	46·5
,, 17	29·939	57·3	60·8	51·5	56·1	64	45	107·8	49·2	45
,, 24	29·838	57·7	62·8	54·2	58·5	65	50	108·9	52	46
,, 31	29·732	58·6	64	50·5	57·2	68	43·5	110·7	48·2	37·5
Sept. 7	30·076	57·1	62·5	50·9	56·7	67	47·5	111·3	46·9	41
,, 14	30·250	54·8	59·4	47·9	53·6	62	43	107·1	43	39
,, 21	30·339	56·8	62·6	49·8	56·2	65	46	104·6	44·9	41
,, 28	30·215	53·6	59·1	45·9	52·5	63	42·5	104·4	40·6	36
Oct. 5	29·957	51·4	57·1	45·4	51·2	63·5	37	102·3	41·7	28·5
,, 12	30·289	50·4	59	40·3	49·6	62	35	96·4	32·3	28
,, 19	30·259	50·1	58·3	43·1	50·7	63	39	95·3	38·1	31
,, 26	29·554	46·3	52·5	39·2	45·8	58	34	83·4	34·0	27·5
Nov. 2	29·811	50·4	54·9	45·7	50·3	60	33	91·5	43·5	27
,, 9	30·280	49·3	53·6	44	48·8	58	34	78·9	42·1	26
,, 16	29·864	43	47	40	43·5	51	36	74·8	36·9	32
,, 23	30·237	46	51·6	41·3	46·4	56	35	75·0	36·8	27·5
,, 30	29·717	43·5	47·1	38·6	42·8	53	32	66·4	34·8	24
Dec. 7	30·058	43·7	50·2	35·9	43·0	53·5	27	69·6	30·6	19
,, 14	30·037	49·8	52	46·2	49·1	54	43	65·3	41·6	34
,, 21	29·959	47·3	49·9	43·4	46·6	54·5	38	71·4	38	30
,, 28	29·840	49·2	52·3	45·7	49	54	42	63	40·8	36

III.

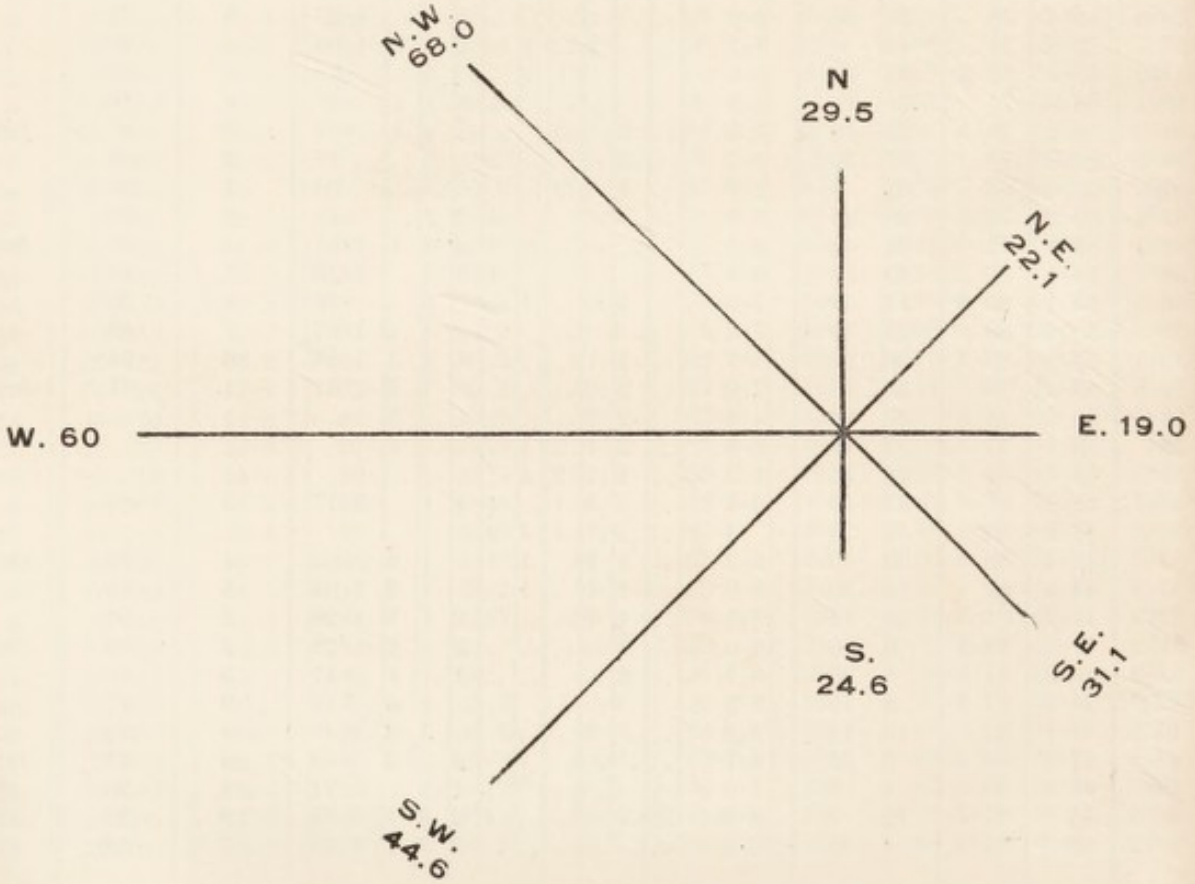
PORTSMOUTH during the 52 weeks ending December 28th, 1912.

ean of h below round		Wet Bulb	Humidity	Total Bright Sunshine (Campbell-Stokes)		Amount of Cloud	WIND 9 a.m. Number of Days									RAINFALL			
	4 ft.	Mean 9 a.m.	Mean 9 a.m.	hrs.	mins.	Mean, 9 a.m.	Calm	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Total (Ins.)	No. of days 0.01 inch or more rainfall	Greatest fall in 24 hours	Date of greatest fall
4	48	44·6	87	4	30	8·5	..	..	..	..	..	..	1	5	1	·85	4	·41	Jan. 6
2	47·3	42	94	4	0	8·1	..	1	..	..	1	3	..	2	..	·575	5	·44	,, 8
5	47	42·4	93	4	10	8·5	..	..	1	..	3	3	..	..	..	1·33	6	·86	,, 17
3	46·7	39·8	90	3	29	9·1	..	..	1	3	1	..	1	1	..	·84	4	·47	,, 23
2	44·9	28·4	65·5	30	25	1·4	..	4	..	2	..	..	..	..	1	..	..	..	——
2	42·7	38·6	82·4	11	5	3·2	..	..	..	2	1	4	..	..	..	·585	7	·29	Feb. 8
5	44·2	43·4	88·5	14	2	5·7	..	1	..	..	..	3	2	1	..	·40	5	·21	,, 11
5	45·3	46·2	93	4	32	9·4	..	..	1	..	1	2	1	1	1	·75	6	·44	,, 22
2	46·6	47·2	88	20	32	8·7	..	..	..	..	..	1	1	5	..	·65	6	·35	March 2
5	47·2	44·1	83	33	10	5·4	..	..	..	..	..	3	..	2	2	1·26	5	·72	,, 4
1	47·1	45·3	92	12	42	8·8	..	..	..	1	1	..	1	3	1	·45	4	·20	,, 15
2	47·3	43·5	85	28	50	6·3	..	..	..	..	..	1	1	3	2	1·40	7	·45	,, 20
3	47·9	47·4	78	37	13	4·4	..	3	..	..	..	..	..	4	..	..	..	..	——
1	48·6	46·5	81	39	40	5·2	..	2	1	..	..	..	..	4	..	·20	1	·20	,, 31
5	49·4	43·2	73	53	17	5	..	2	..	1	..	..	..	2	2	·12	2	·10	April 9
3	49·7	48·1	74	67	20	2·1	..	..	..	1	3	2	..	1	..	..	..	..	——
5	50·8	50·5	59	84	15	..	..	..	2	4	..	1	..	..	..	..	..	..	——
2	51·9	48·2	72	49	13	3·7	..	2	1	1	..	..	..	2	1	·01	1	·01	May 1
7	53·2	56·7	81	28	34	6·5	..	..	..	..	..	1	2	4	..	·42	3	·24	,, 7
5	54·9	52·6	69·8	45	40	7·1	..	..	..	2	2	..	..	1	2	·40	4	·20	,, 12
3	55·2	51·3	71·5	48	28	5·1	..	1	1	..	1	2	..	2	..	·19	2	·12	,, 21
	55·9	54·9	70	60	20	2·7	..	2	..	..	1	..	1	2	1	·18	2	·12	June 1
3	56·8	53·4	75	50	10	8·0	..	..	1	..	..	..	1	5	..	1·27	5	·77	,, 7
4	57	55·5	71	49	0	5·7	..	..	1	..	1	..	2	1	2	1·06	4	·58	,, 15
2	57·6	57·4	75·5	53	33	5·4	..	..	..	1	1	..	..	5	..	·15	3	·08	,, 17
5	59·1	56·8	75	61	10	6·5	..	..	..	..	..	1	4	1	1	·40	4	·28	,, 25
4	59·3	56·4	78·5	23	18	7·2	..	2	..	3	..	..	..	..	..	·54	3	·33	July 2
	59·9	60·9	73	37	30	3·7	..	2	..	..	..	2	..	..	..	·15	3	·08	,, 9
4	61·7	62·0	63	62	5	2·7	..	4	..	3	..	..	..	..	..	·05	1	·05	,, 19
	62·1	60·9	76·5	36	45	5·9	..	..	..	..	..	4	2	1	..	·41	2	·30	,, 27
7	62·4	56·4	72	34	40	6·4	..	..	..	..	..	1	2	3	1	1·15	5	·60	Aug. 3
7	61	55·1	77	33	13	6·4	..	..	..	..	..	1	1	5	..	1·29	7	·49	,, 6
1	60·1	54·1	80·6	16	42	7·0	..	1	..	..	1	..	..	5	..	·76	6	·26	,, 12
1	59·9	55·9	88	25	10	7·0	..	..	..	..	..	..	2	4	1	1·67	7	·49	,, 23
3	59·1	55·9	83·5	26	25	5·7	..	1	..	..	..	..	1	2	3	1·55	6	·94	,, 25
3	59·6	53·2	76	30	45	7·0	..	2	..	..	..	..	..	1	4	·01	1	·01	Sept. 1
5	58·6	50·9	75·5	20	30	4·4	..	2	2	..	..	..	..	..	3	..	..	..	——
	58	53·1	77	32	40	5·9	..	2	1	2	1	..	..	..	1	..	..	..	——
7	57·2	48·7	64	48	35	4·3	..	1	..	2	4	..	..	..	..	..	..	..	——
3	56·1	48·7	81	37	40	3·8	..	..	3	1	..	1	1	1	..	3·17	3	1·60	,, 29
3	54·5	47·8	80	55	20	·4	..	..	..	1	4	2	..	..	..	..	..	..	——
4	53·5	48·4	88·5	32	0	5·3	..	1	1	..	1	1	..	1	2	·02	1	·02	Oct. 14
3	53·8	44·6	87	14	30	8·0	..	1	1	..	1	..	..	1	3	1·04	5	·45	,, 20
5	52·3	47·7	81	25	15	5·1	..	1	1	..	..	1	2	1	1	1·29	5	·64	,, 28
5	51·2	47·9	89·5	6	0	10·0	..	4	..	..	..	..	2	..	1	·29	2	·28	Nov. 4
1	51·3	40·6	81·5	5	38	8·7	..	5	..	..	..	..	1	..	1	·17	3	·10	,, 16
	49·7	44·3	87·5	8	10	5·8	..	..	..	..	..	..	..	1	6	·18	3	12	,, 23
3	49·8	41·1	82	12	15	5·3	..	..	1	..	..	..	..	3	3	1·12	4	·46	,, 28
5	47·5	41·9	86	9	35	5·7	..	..	..	..	1	..	4	..	2	·48	4	·23	Dec. 1
	48	48·4	90	4	5	7·0	..	..	..	..	..	1	1	5	..	·71	5	·30	,, 10
4	48·8	45·6	87·5	10	5	6·9	..	..	..	..	..	1	2	3	1	·55	3	·29	,, 15
	48·2	48·0	91·5	1	35	10·0	..	..	..	..	..	..	3	3	1	1·83	7	·65	,, 25

WINDS.

The following Table shows the direction and Velocity of winds, experienced in Portsmouth during the year 1912.

Month	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Force 0-12	
									Calms	4 to 7
January ..	6	9	9	21	12	9	9	18	..	40
February ..	9	3	3	15	18	15	15	9	..	48
March ..	3	..	3	..	12	15	30	30	..	60
April ..	9	15	21	9	9	..	6	21	..	72
May ..	9	6	6	12	3	12	27	18	..	51
June ..	..	6	..	12	3	21	33	15	..	72
July ..	24	3	12	3	18	15	15	3	..	63
August ..	3	3	..	3	3	18	36	27	..	69
September ..	15	12	9	18	..	6	..	30	..	69
October ..	6	15	6	18	9	9	9	21	..	24
November ..	21	9	..	..	..	12	62	42	..	36
December ..	3	..	..	3	3	33	33	18	..	57
Total ..	108	81	69	114	90	165	219	252	..	



APPENDIX.—TABLE I.

Vital Statistics of Whole District during 1912 and previous years.

YEAR	Population estimated to Middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.			
			Nett.						Under 1 Year age		At all Ages	
		Uncorrected Number	Number	Rate	Number	Rate	of Non-residents registered in the District	of Residents not registered in the District	Number	Rate per 1,000 Nett Births	Number	Rate
1907	214,797	5796	..	26.93	3332	15.51	..	..	714	125	..	..
1908	219,095	6110	..	27.88	2957	13.49	..	..	607	99	..	..
1909	223,436	5820	..	26.40	3045	13.62	..	..	556	95	..	..
1910	227,821	5801	..	25.41	2995	13.14	..	..	603	104	..	..
1911	232,221	5787	5775	24.99	3361	14.52	106	72	734	127	3289	14.21
1912	236,732	5605	5570	23.60	3141	13.31	97	81	466	85	3125	13·24

Area of District in acres (land and inland water)—6,100.

Total population at all ages	231,141	At Census of 1911.
Number of inhabited houses	47,033	
Average number of persons per house ..	4.9	

APPENDIX.—Table II.

Cases of Infectious Disease notified during the Year 1912.

Notifiable Disease	Cases notified in whole District								Total Cases notified in each Locality						Total cases Removed to Hospital
	At all Ages	At Ages—Years							1 Portsmouth	2 Portsea	3 Landport North	4 Landport Central	5 Mid-Southsea	6 Southsea	
		Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and upwards							
Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	.	..
Cholera, Plague ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria (iucluding Membranous croup) ..	1051	6	285	663	49	42	6	..	13	22	316	325	308	67	782
Erysipelas	142	3	6	9	17	49	42	16	3	12	47	39	29	12	..
Scarlet fever ..	1407	17	322	877	117	68	5	1	43	152	352	422	311	127	702
Typhus fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric fever ..	140	..	19	44	29	34	13	1	5	8	31	60	26	10	71
Relapsing fever and Continued fever	11	..	1	6	1	2	1	..	1	2	1	5	2	..	..
Puerperal fever ..	8	..	..	..	5	3	..	..	..	2	3	2	1	..	..
Cerebro- spinal meningitis	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Poliomyelitis ..	1	..	..	1	..	..	..	..	..	..	1	..	..	..	..
Pulmonary Tuberculosis	1289	2	17	151	250	664	190	15	40	167	343	318	350	71	.
Totals ..	4049	28	650	1751	468	862	257	33	105	365	1094	1171	1027	287	1555

APPENDIX.—Table III.

Causes of, and Ages at, Death during the Year 1912.

CAUSES OF DEATH	Nett Deaths at the subjoined ages of "Residents" whether occurring within or without the district.							
	All ages. year	Under 1 year	1 and under 5 years	5 and under 15 years	15 and under 25 years	25 and under 45 years	45 and under 65 years	65 and upwards
All causes { Certified	3102	456	327	182	104	428	672	933
All causes { Uncertified	23	10	3	1	..	3	1	5
Enteric Fever	23	..	2	6	3	7	5	..
Small-pox	..	..	..	..	..	..	..	..
Measles	96	23	68	5	..	..	..	..
Scarlet Fever	31	1	13	14	3	..	..	..
Whooping Cough	53	17	31	3	2	..	..	..
Diphtheria and Croup	125	1	49	74	..	..	1	..
Influenza	21	2	..	..	..	7	2	10
Erysipelas	7	2	1	..	..	..	2	2
Phthisis (Pulmonary Tuberculosis)	277	3	12	12	44	126	73	7
Tuberculous Meningitis ..	31	6	15	5	3	1	1	..
Other Tuberculous Diseases ..	46	8	7	9	1	9	11	1
Cancer, malignant disease ..	244	1	..	..	1	26	104	92
Rheumatic Fever	8	..	..	1	2	4	1	..
Meningitis	18	3	7	3	..	2	..	3
Organic Heart Disease ..	337	1	2	7	10	61	113	143
Bronchitis	264	30	25	3	..	20	62	124
Pneumonia (all forms) ..	167	26	41	14	3	30	26	27
Other diseases of Respiratory organs	30	..	4	4	..	4	11	7
Diarrhoea and Enteritis ..	58	46	12	..	..	..	..	..
Appendicitis and Typhlitis ..	12	1	1	1	4	3	2	..
Cirrhosis of Liver	29	..	..	..	..	6	18	5
Alcoholism	5	..	..	..	..	4	1	..
Nephritis and Bright's Disease ..	79	..	2	1	3	13	40	20
Puerperal Fever	8	..	..	..	2	6	..	..
Other accidents and diseases of Pregnancy and Parturition ..	16	..	..	..	3	13	..	..
Congenital Debility and Malformation, including Premature Birth	225	222	3	..	..	..	..	..
Violent Deaths, excluding Suicide	74	10	10	8	8	20	13	5
Suicide	14	..	..	..	3	2	8	1
Other Defined Diseases ..	835	59	22	13	9	65	177	490
Diseases ill-defined or unknown ..	12	4	3	..	..	2	2	1

APPENDIX.—Table IV. Infantile Mortality.

Nett Deaths from stated causes at various Ages under 1 Year of Age.

CAUSE OF DEATH.	Under 1 week	1-2 weeks	2-3 weeks	3-4 weeks	Total under 4 weeks	4 weeks and under 3 mths.	3 months and under 6 mths.	6 mths. and under 9 mths.	9 months and under 12 mths	Total Deaths under One Year
All causes—Certified	164	22	23	3	212	88	52	59	45	456
Uncertified	9	..	..	..	9	..	..	1	..	10
Small-pox	..	..	..	..	..	..	..	..	..	..
Chicken-pox	..	..	..	..	..	..	..	..	..	..
Measles	..	..	..	..	..	..	1	10	11	22
Scarlet Fever	..	..	..	..	..	..	..	..	..	..
Whooping-Cough	..	..	..	1	1	3	6	5	2	17
Diphtheria and Croup	..	..	..	..	..	..	..	1	1	2
Erysipelas	..	..	1	1	2	..	..	..	..	2
Tuberculous Meningitis	..	..	..	..	..	..	1	4	..	5
Abdominal Tuberculosis	..	1	..	..	1	2	1	..	3	7
Other Tuberculous Diseases	..	..	..	..	..	2	2	..	1	5
Meningitis (*not Tuberculous*)	1	..	..	..	1	..	..	1	..	2
Convulsions	5	4	1	1	11	2	3	3	..	19
Laryngitis	..	..	..	..	..	..	..	..	..	..
Bronchitis	..	..	1	1	2	7	5	8	8	30
Pneumonia (all forms)	..	1	..	1	2	6	3	1	4	26
Diarhoea	..	..	..	..	..	9	6	5	3	23
Enteritis	..	2	1	3	6	5	2	4	..	17
Gastritis	..	..	..	..	..	2	3	..	..	5
Syphilis	1	..	..	1	2	2	1	..	..	5
Rickets	..	..	..	..	..	..	..	..	..	..
Suffocation, overlying	2	..	..	2	4	4	3	..	..	11
Injury at Birth	9	..	..	..	9	..	..	..	..	9
Atelectasis	6	..	..	..	6	..	..	..	..	6
Congenital Malformations	7	5	1	1	14	7	2	1	2	26
Premature Birth	92	14	17	6	129	11	..	..	1	141
Atrophy, Debility and Marasmus ..	8	4	1	1	14	20	11	5	3	53
Other Causes	4	4	4	2	14	9	2	6	2	33

Port Sanitary Authority.

To the Chairman and Members of the Port Sanitary Authority.

GENTLEMEN,

There has been no one case of infectious disease on vessels arriving at the Port during the year.

All vessels have been constantly inspected by the Port Sanitary Inspector, and when necessary, by myself. There have been eighteen ships upon which insanitary conditions were found in connection with the men's quarters: w.c.'s, bilges, water-tanks and bedding—all of these were remedied.

Altogether 6,989 vessels arrived at the Port during the year; of these 119 were from foreign ports, 1,082 from coasting ports, and 5,788 from places in the Solent. The nationalities of the foreign vessels were as follows:—

French	30	German	12	Danish	12
Russian	8	Swedish	8	Spanish	1
Dutch	6	Norwegian	37	Belgian	5

There is still no place, except the Small-pox Hospital at Langstone, for any case of Plague or Yellow Fever that may arrive.

I have the honour to be, Gentlemen,

Your obedient servant,

A. MEARNS FRASER, M.D.,

Medical Officer of Health to the Port of Portsmouth.

Milton Hospital.

To the Chairman and Members of the Hospital Committee.

GENTLEMEN,

I have the honour to submit my Annual Report for the year ending December 31st, 1912.

The total number of admissions during the year was 1,555, against 1,141 last year. The number of deaths was 114; discharged 1,268, remaining 173. The combined mortality in respect of all cases was 8.24 per cent. The greatest number in hospital on any one day was 209 on October 29th, the lowest 88 on March 20th. The accommodation at the hospital was quite insufficient to admit all the cases of scarlet fever and diphtheria requiring isolation. The number of beds is 122; 209 were in the hospital on one occasion. This was accomplished by placing many beds in the wards and even sleeping patients on chairs. It is not good for the patients to be placed under such conditions; many of the complications in my opinion were due to this overcrowding. In a report made to your Committee during the year I advised the addition of two blocks of 30 beds each, and one cubicle block of 20 beds—this is the minimum number required. I would again press upon you the urgent necessity of providing this accommodation, especially the cubicle block.

SCARLET FEVER.—Of this disease 702 were admitted; last year 635; discharged 580, died 19, remaining 102, the fatality rate being 3.17 per cent. The death of six of these was complicated by other diseases before admission, viz.: tubercular abscess of spine 1; scald of face and left arm 1; and tuberculous glands of neck recently operated upon, all admitted from a public institution; the remaining three suffered from tubercular meningitis, Bright's disease, and acute broncho-pneumonia respectively.

The type of disease in the other fatal cases was severe, both of the septic and toxic form. Sixty-three patients had a nasal discharge either on admission or during their stay in hospital, the bacillus of diphtheria being found in 21; 47 had a discharge from one or both ears; 19 kidney disease, either

albumen or acute nephritis ; 45 enlarged glands ; 44 had exudation on the fauces, the bacillus of diphtheria being present in 22. Eight cases admitted with no rash developed a well-marked scarlet fever rash during their stay. The greatest number on any one day was 119, and the lowest 41.

DIPHTHERIA.—Admitted 782 (last year 436) ; discharged 634 ; died 86 ; remaining 62, the fatality rate being 11.84, only one death occurring in a patient admitted on the first day of the disease. Of the fatal cases, 14 died in from one to 48 hours after admission, all of the faucial type, the disease being in too advanced a stage to benefit by serum treatment. In 12 cases obstruction to respiration necessitated operation ; tracheotomy was performed ; 4 recovered, 8 died (several of these were complicated with faucial diphtheria, death taking place after the operation from toxaemia ; and two were moribund on admission). Of the faucial cases three admitted as diphtheria were suffering from scarlet fever, the throat condition being due to that disease. The complications were mostly of the nervous system, 17 suffering from paralysis of the soft palate, 2 of the muscles of deglutition, and 3 of the ocular muscles, causing squint. The greatest number in one day was 86, the least 41.

ENTERIC FEVER.—Admitted 71 ; died 9 ; remaining 7, the death rate being 14.06 per cent.

ILLNESS OF STAFF.—Two nurses contracted scarlet fever, 1 enteric, 1 varicella—all recovered.

My thanks are again due to the Matron and Nursing Staff for their valuable assistance, the crowded state of the hospital entailing an excessive amount of work.

Your obedient servant,

JAMES McGREGOR.

TABLE XXIII.

MILTON HOSPITAL.

NUMBER OF PATIENTS ADMITTED

during the Year 1912.

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	..	..	..	..	..	..	..	..	..
Scarlet Fever ..	14	174	414	66	20	5	..	..	702
Typhoid Fever ..	1	6	29	10	11	10	3	1	71
Diphtheria	7	245	469	30	25	4	2	..	782
Measles	..	..	..	..	..	..	..	..	..
Varicella	..	..	..	..	..	..	..	..	..
Totals .. .	22	425	912	106	65	19	5	1	1555

TABLE XXIV.

NUMBER OF PATIENTS ADMITTED to the MILTON HOSPITAL (Small-pox Patients—Langstone Hospital) for the years 1883 to 1912.

Year	Small-pox	Scarlet Fever	Enteric or Typhoid	Diphtheria	Measles	Other Diseases	Totals
1883	5	1	..	..	1	..	7
1884	1	13	2	4	2	..	22
1885	8	16	6	6	1	..	37
1886	7	29	66	11	11	1	125
1887	20	56	37	27	4	3	147
1888	4	120	35	23	8	8	198
1889	6	278	48	18	5	8	363
1890	1	384	114	69	1	7	576
1891	..	180	51	52	22	18	323
1892	..	532	81	27	..	5	645
1893	6	503	94	12	6	5	626
1894	22	238	53	38	22	9	382
1895	..	177	83	46	15	25	346
1896	6	354	76	38	10	17	499
1897	..	413	102	37	6	11	569
1898	..	436	92	118	6	10	662
1899	1	333	96	225	..	2	657
1900	..	198	157	211	1	..	567
1901	1	270	101	170	..	..	542
1902	8	339	105	197	..	..	649
1903	3	572	70	211	..	2	858
1904	..	340	73	220	..	3	636
1905	10	274	57	198	..	..	539
1906	1	243	72	239	..	..	555
1907	..	202	109	235	..	..	546
1908	..	343	102	284	1	1	731
1909	..	631	96	354	1	..	1082
1910	..	850	114	336	..	..	1300
1911	..	635	70	436	..	..	1141
1912	..	702	71	782	..	..	1555

Report of the Chief Inspector of Nuisances

FOR THE YEAR 1912.

GENTLEMEN,

I have the honour to submit my twenty-seventh Report as Chief Inspector of Nuisances of the sanitary work carried out under my supervision for the past year.

2,731 Preliminary and 657 Statutory Notices were issued for the abatement of Nuisances, and the following works were carried out under the supervision of your officers, viz. :—

DRAINAGE DEFECTS.

Drains Cleansed	368
,, Repaired or Re-laid with Watertight Joints	186
,, Ventilated or Shafts repaired or raised	52
Waste or Rain-water Pipes disconnected	11
Soil Pipes ventilated	6
New Water Closet Pans provided	330
,, Pedestal Water Closet Apparatus provided	9
Soil Pipes removed outside houses	7
Water Closet Fittings repaired	222
Flushing Apparatus provided to Water Closets	789
Extra Sanitary Accommodation provided in Workshops	5
Separate ,, ,, ,, ,,	3
Waste Pipes provided, repaired and trapped	164
Glazed Stoneware Sinks provided	81
Water Closets Ventilated	4
Yards Drained	2

SANITARY DEFECTS IN CONNECTION WITH DWELLING-HOUSES AND WORKSHOPS.

Rain-water Spouting cleansed, provided, or repaired	519
Roofs repaired	427
Outside Walls protected	62
Flooring, Stairs or Doors repaired	321
Sashes, Lines, or Sash Frames repaired	192
Windows (fixed) made to open	46
Space under Floors efficiently ventilated	38
Damp Courses repaired or provided	9
Houses, or parts of houses, cleansed and distempered	251
Walls and Ceilings repaired	212
Sanitary Dust-bins provided	5
Yards repaved or paving repaired	463
Urinals Cleansed or Repaired	8
Water Closets Cleansed	32
Overcrowding in Dwelling-houses discontinued	31
,, ,, Workshops discontinued	4
Smoke Nuisances abated	2
Workshops cleansed and limewashed	64
,, ventilated	2
Floors of Workshops drained	2
Water Supply to Dwelling-houses provided	13
Rain-water Tanks removed	3
Other Nuisances in connection with Dwelling-houses ..	92
,, ,, ,, ,, Workshops ..	22

OFFENSIVE MATTER, &c.

Manure removed	27
Refuse ,, ...	52
Animals ,, ...	33
Stagnant Water removed	6
Bedding Cleansed	13
Cesspits Cleansed	2

SLAUGHTER-HOUSES, COWSHEDS, BAKEHOUSES, &c.

Slaughter-houses cleansed	11
Cowsheds cleansed	4
Bakehouses cleansed	21
Yards, Stables, Styes, etc. cleansed	31
Manure Pits provided	11
,, repaired	2

BYE-LAWS.

Notices under Nuisance Bye-laws complied with	11
,, Slaughter-house ,, ...	4
,, Common Lodging House ,, ...	1
,, Dairies, Cowsheds and Milkshops	1

The following articles of food have either been seized or given up for destruction, and destroyed as unfit for the food of man, viz. :—

Carcases of Beef	..	26
,, Mutton	..	8
,, Lamb	..	2
,, Pork	..	14
Pieces of Beef (Colonial)	lbs.	1102
,, Mutton (Colonial)	,,	26
Sheeps' Plucks (Colonial)	cwt.	1½
Pigs' Plucks	,,	2
Pig's Head	..	1
Ox Tails (Colonial)	..	10
,, Kidneys (Colonial)	..	37
Tripe (Colonial)	lbs.	32
Pork Sausages	,,	26
Beef Sausages	,,	4
Whiting	kits	4
,,	boxes	6
,,	cwt.	1½
Mixed Fish	kits	4
Bream	boxes	8
Cod Fish	..	4
,,	boxes	2
,,	stone	2
,, (Salted)	,,	30
,, ,,	barrels	13
Shrimps	galls.	347
,,	baskets	9
,,	boxes	5
Sprats	barrels	4
Dogfish	,,	2
Herrings	,,	14
,,	boxes	14
Spraggs	stone	10
Mackerel	cwt.	2
,,	boxes	82
Bloaters	,,	437
Kippers	,,	68
Haddock	stone	5
,,	boxes	6
,, (Dried)	,,	39
,, (Filletted)	,,	63
Megrams	,,	13½
Soles	,,	5

Cods' Roes	Stone	2
,,	barrel	1
,,	box	1
Prawns	,,	1
,,	tins	4
Escalops	..	200
Plaice	..	6
,,	kits	4
,,	box	1
Salmon	..	2
Halibut	box	1
Hake	boxes	3
Turbot	stone	2
Crabs	..	77
,,	barrels	3
Cockles	gallons	8
Salmon (Tinned)	..tins	7
Rabbits	..	84
Ducks	..	4
Chicken	..	4
Pheasants	..	3
Hare	..	1
Greengages	basket	1
Pears	boxes	25
Currants	lbs.	24
Medlars	bushel	1
Dates	boxes	7
Bananas	bunches	20
Tomatoes	boxes	53
Brussel Sprouts	Bags	5
Condensed Milk	tins	48
Preserved Eggs	lbs.	28

GENERAL INSPECTION OF DISTRICT.

DWELLING HOUSES.—During the year 8,348 examinations of dwelling houses were made and 10,775 re-inspections of property when under notice were made, whilst works ordered to be carried out were in progress.

COMPLAINTS.—791 Complaints as to alleged nuisances were made at the office and received due attention.

SLAUGHTER-HOUSES.—4,712 visits were made to the Slaughter-houses in the Borough. Two extra yearly licences were granted, old licenses being given up in each instance.

One new license was issued for a term of five years, Mr. Hutchins, his registered premises in White's Row, Portsea, being acquired by the Local Authority under the Portsea Improvement Scheme. At the end of the year there were 82 slaughter-houses in actual regular use.

DAIRIES, COWSHEDS AND MILKSHOPS.—2,001 visits were made to the Dairies, Cowsheds and Milkshops. 300 applications were made for registration, including eleven cowkeepers. The cowsheds have accommodation for 169 cows. The milkshops and cowsheds have been well kept during the year.

COMMON LODGING HOUSES.—662 visits were made to the Common Lodging Houses. They have on the whole been well kept, and it was only necessary to call the attention of one keeper to breaches of the Bye-laws.

WORKSHOPS.—3,067 visits were made by Inspector Gray and Miss Monk to the Workshops. Notices were served in 333 instances with respect to nuisances found to exist. 1,048 visits were paid to the different Bakehouses, which were kept in a very fair condition, only 21 notices with respect to want of cleanliness being served during the year. Most of the bakehouses were limewashed more often than twice a year. 526 visits were also paid to Out-workers under the Factory and Workshops Act.

INFECTIOUS AND ZYMOTIC DISEASES.—3,049 cases of Infectious Diseases have been visited and investigated by Miss Monk and the Sanitary Inspectors, compared with 2,201 cases last year. Miss Monk has also visited 1,373 cases of Tubercular Disease.

NOTIFICATION OF BIRTHS ACT.—During the year the Health Visitors paid 6,673 visits.

DISINFECTION.—3,049 rooms were disinfected, against 2,214 the previous year, whilst no less than 6,285 articles of wearing apparel and bedding were disinfected in the steam disinfector at the Infectious Diseases Hospital.

DRAINAGE.—4,283 house drains were tested or re-tested. 316, or 7.3 per cent., were found defective. Inspector Turner has tested or re-tested 1,909 drains and the inside sanitary fittings in 1,106 instances in connection with newly built houses. As in previous years a number of drains have been relaid under Section 41 of the Public Health Act by the Borough Engineer's staff, and tested by Inspector Turner, whilst others, which come under the definition of "Sewers,"

have either been cleared or relaid by the Local Authority, at their cost.

FLUSHING APPARATUS.—During the year 789 flushing apparatuses have been fixed to water closets and water supply laid on. Sixty-nine were fixed by the Contractor, in most cases at the request of the owners. During the past five years no less than 4,256 houses have been supplied with flushing apparatus.

SMOKE OBSERVATIONS.—89 observations of one hour each have been made of some of the smoke shafts in the town. Considerable improvement has been effected in the amount of "black smoke" emitted.

SHOPS ACT, 1912.—This Act, to consolidate the Shops Regulations Acts, 1892 to 1911, came into operation on May 1st. Systematic inspection under the Act and various Orders made under the same has been made by Inspector Gray. During the year several offences were reported. It has not, however, been necessary to institute Police Court proceedings, but letters of warning have been sent by the Town Clerk to the various offenders.

FOOD AND DRUGS ACTS.—During the year 1,140 samples of Food and Drugs were submitted to the Public Analyst for analysis, and of this number 52 were returned as adulterated, a percentage of 4.5. Altogether 54 different kinds of articles were examined, the principal being 480 milks, 21 skimmed or separated milks, 319 butters (including milk-blended butters, 30 coffees, 23 cocoas, 11 spirits and 93 drugs. The adulterated samples were 27 milks, 15 butters, 4 coffees, 1 vinegar, 3 spirits and 2 drugs.

It will be seen there were 62 samples less of milk and 92 more of butter taken this year than last, the increase in the adulterated samples of butter shewing that increased sampling of this article was required. Of the 480 samples of milk, 388 were purchased from vendors in the street or at the various dairies ; 90 were taken on delivery, 56 being farmers' milks and 34 being taken from vendors at public institutions and private houses, and 2 being sent in by private persons. Of the milks purchased 21 were adulterated, 15 being deficient in fat, varying from 3.3 to 33.3 per cent. ; 5 contained added water, varying from 3 to 40.1 per cent., and 1 contained 31.5 grains of boric acid per gallon. Proceedings were taken in 13 cases and convictions obtained in 11, two being dismissed. One defendant pleaded a warranty, which was upheld, and

in the other case the defendant pleaded guilty, but as it was a first offence the case was dismissed. In two of these cases proceedings were taken against the employees, convictions being obtained and fines imposed. In the remaining cases letters of caution were sent by the Medical Officer of Health to the vendors, the percentage of adulteration being small or it being a first offence. Of the 56 milks taken from farmers on delivery, 5 were adulterated, 2 being deficient in fat and 3 containing added water. Proceedings were taken in the cases of added water, convictions being obtained against two farmers. One of these farmers was summoned in June 1911 in respect to four churns of milk containing added water, varying from 9 to 22 per cent. As it was two consignments on different days, two convictions were recorded against him, one for each consignment. In March of this year he was again summoned with respect to two churns of milk containing 4.4 and 12.7 per cent. of added water, and again fined. This farmer is now sending his milk to another town.

In the two cases shewing a deficiency in fat the farmers were warned. Of the 34 samples taken on delivery from vendors, principally at public institutions, all were genuine and of good quality. Of the two milks sent in by private persons, one was adulterated with added water. The 21 skimmed or separated milks were all genuine.

There were no cases of refusing to serve or impeding. Several vendors were personally cautioned for not having their names and address on receptacles from which the milk was served.

Of the 15 adulterated Butters, one contained an excess of moisture, 6 were mixtures of butter and other fats, and 8 consisted entirely of margarine. Proceedings were taken in four cases, the vendors being convicted and fined, and one vendor died before the summons was taken out. In these cases a person had to be employed to become a regular customer before margarine was supplied.

Last year no vendor was summoned for adulterated butter although several samples contained an excess of moisture.

Of the four adulterated Coffees, one vendor was summoned and convicted, in the other cases it was not a general practice of serving coffee and chicory as coffee. In the case of adulterated Vinegar the vendor was warned. The vendor informed me it was supplied as malt vinegar and the jar in which it was supplied was labelled pure vinegar. On going to the firm that supplied it I was informed that they mixed half wood vinegar and half malt vinegar together, and sold it as pure vinegar.

In the three cases of adulterated spirits, one vendor was summoned and convicted and in the other cases the vendors were warned.

Of the two adulterated Drugs, one was sent in as a private sample the other being purchased.

PROSECUTIONS AND FINES.

PUBLIC HEALTH ACT.—One person was summoned for exposing for sale 22 pieces of Meat which were unfit for the food of man, and was fined 8s. for each piece and the costs 10/6, amounting to £9 6s. 6d. together.

Two persons were summoned under Section 36 of the Public Health Act for non-payment of the cost of providing flushing cisterns to their properties. They however paid into Court the amounts and costs on the day of hearing.

MARGARINE ACT.—Four persons were summoned for breaches of this Act, but as they were each convicted under the Sale of Food and Drugs Act the cases were not proceeded with.

FOOD AND DRUGS ACT.—Twenty-one informations were laid under this Act ; Convictions were obtained in 18 cases and fines and costs amounting to £44 6s. 0d. imposed. One case was dismissed on Warranty, one owing to its being a first offence, and one case was withdrawn, the defendant being fined for another sample taken at the same time and place.

I am, Gentlemen,

Your obedient servant,

FRED. L. BELL,

Chief Inspector of Nuisances.

The Diseases (Animals) Act.

A. Mearns Fraser, Esq., M.D.,
Medical Officer of Health.

SIR,

I most respectively beg to present you my Annual Report for the year ending December 31st, 1912.

INSPECTION OF CATTLE.—The following is a list of animals which have been imported into the Borough during the year. The greater number arrived at Fratton Cattle Yard from various markets. This does not include the whole of the animals imported into the Borough, as many come by road and water from other districts :—

Beasts	9,679
Sheep	29,508
Calves	5,214
Pigs	30,414
	74,815

INSPECTION OF CATTLE TRUCKS, &c.—2,794 cattle trucks, 767 horse-boxes, and 624 tow-boats have been inspected during the year, all were found to be cleansed and lime-washed as required by the Act and Orders made.

FOOT AND MOUTH DISEASES' ORDER OF 1895.—In consequence of Foot and Mouth Disease being introduced into this country from Ireland, the Board of Agriculture under the above Order made no less than 200 Orders since July 1912 to be enforced by the Local Authority of this Borough, regulating cattle coming and going to all parts of the United Kingdom. These Orders were rigorously carried out, and necessitated my examining thousands of head of cattle and also making strict inquiries as to the various movements of the animals until slaughtered. This entailed a great deal of work at night, as well as on Sundays. Although the disease made its appearance in many parts of the County, I am glad

to state that Portsmouth escaped this most irritating and expensive disease.

SWINE FEVER.—During the year many complaints have been made by owners of pigs who were suspicious of Swine Fever, but when their premises were visited the illness did not prove to be swine fever. Three outbreaks of the above disease did occur in the Borough during the year. One at the Borough Asylum, Milton, where some 148 pigs were kept, and the Board of Agriculture deemed it necessary to advise the Asylum Authorities to have the whole of the stock slaughtered. This was done, and in so doing stamped out the disease in that part of the Borough. The other two outbreaks occurred at Copnor, sties situated in Red Lane and Mr. Kiln's brickyard, but the pigs at both places belonged to one owner. The Board of Agriculture caused the pigs upon both these premises to be slaughtered and buried, and gave me instructions to serve Form B upon nine pig owners in that district, shuting up no less than 271 pigs, which could only be licensed from the premises for the purpose of slaughter, and this confined the disease to these premises, and eventually stamped it out of the Borough.

In consequence of an infringement of the Movement Order under the Swine Fever Order, Form B was served upon a pig keeper at Copnor, who whilst under this restriction moved 7 store pigs into his premises contrary to the Order, and 5 fat pigs from his premises without first obtaining the necessary licenses. He was proceeded against, and in the first case was fined 5s. for each pig (35s. in all), and 16/6 costs, but in the second case no further penalty was inflicted.

IMPORTATION OF DOGS ORDER, 1901.—During the year I have received licenses and memoranda from the Board of Agriculture, the Customs Officers in the Dockyard and other landing places, notifying dogs arriving from foreign ports to this Port. The Orders relating to these dogs have been duly carried out by Inspector Turner and myself, and where any infringements of the licenses and the Order have occurred whilst in transit or under detention, have been reported to the Town Clerk.

During the year 84 dogs have been notified, and visits have been made to secure the conditions of the licenses being strictly carried out, especially with performing dogs.

PARASITIC MANGE.—Many reports from the Police and Inspector of the R.S.P.C.A. have been received during the

year respecting this disease, but upon examination by Mr. Herbert Green, the Veterinary Surgeon for the Borough, it was found that these referred to cases that had recovered from the disease, and in most cases the horses had been imported into the Borough from other districts. But one case, reported by the owner, after being seen by his veterinary surgeon, Mr. Irish, proved to be Parasitic Mange. This case was isolated and treated until certified by the Borough Veterinary Surgeon to be free from disease. The whole of the premises, manure and harness was thoroughly disinfected, effectually stamping out the disease.

SHEEP-SCAB.—COMPULSORY DIPPING AREAS ORDER OF 1906 AND 1910.—Under this Order several areas and markets have been declared by the Board of Agriculture, which has caused compulsory sheep-dipping to take place and declaration to be made to that effect before they were allowed to be exposed in the various markets. No less than 3,639 sheep were treated and came into this Borough for the purpose of slaughter. These had my supervision until slaughtered.

ANIMALS (TRANSIT AND GENERAL ORDER) 1912.—Dealing in worn-out horses in this Borough is carried on to a large extent. Under the above Order I am placed in a position to deal with such, and to see that only fit horses are entrained for London Docks to be shipped to foreign ports. During the year I have examined 206 horses, which were in my opinion all fit to travel, others that were rejected were slaughtered by the licensed slaughterer.

Other Orders, dealing with Hay and Straw (which prohibit the same being landed in this country from foreign ports), as well as the American Gooseberry Mildew Order, have had my attention during the year.

I am, Sir,

Your obedient servant,

G. W. MONKCOM.

Female Inspector's Report.

To A. Mearns Fraser, Esq., M.D.

SIR,

I beg to present to you my Report for the year ending December 31st, 1912.

Under the Notification of Pulmonary Tuberculosis Act 862 cases have been reported, and I have paid 1,373 visits to the homes of these patients, recorded particulars, and given help and advice in the management of the patients and their surroundings.

I have paid 606 visits to cases of infectious disease, chiefly of measles and epidemic diarrhoea, and 419 other visits, these being cases of difficulty reported or sick and weakly babies.

I have visited 153 Workrooms under the Factory Act.

Miss Preston and Miss Weaver have paid 6,316 visits under the Notification of Births Act, and on an average about 36 mothers per week have come to our office for advice and to have their babies weight recorded.

REPORT OF INSPECTOR ON THE MIDWIVES' ACT DURING 1912.

No. of Midwives on the List ..	53
Cases attended by Midwives ..	3337
No. of Cases needing Medical help ..	233
No. of Still Births	69
Cases of Puerperal Fever	2
No. of visits paid to Midwives' cases	593
Visits of Inspection, Bag, etc. ..	150

The 53 Midwives working in the Borough were quite enough for the requirements of the people, and their work has been most valuable to the poorer mothers, particularly those cases where there was little clothing and articles for use.

The Midwives are, almost without exception, clean and well trained. 30 are Midwives by examination ; 11 were trained in Military Families Hospitals, and one in the Rotunda Hospital. The remaining nine belong to the *bona-fide* class, which is rapidly dying out. They are sensible, hard-working women, quite good so long as nothing abnormal happens.

The bags of the trained women are clean and well stocked. Those of the others are clean, but not so tidy or well supplied with instruments. Nail brush, clinical thermometer, disinfectant, soap, enema syringe, scissors, boracic powder, clean thread and rag being all that is insisted upon. In regard to the old class of Midwives they find some difficulty in keeping their registers up to date, as they have often not had the opportunity of being sufficiently well educated.

There has been no case that has required reporting, and no midwife has needed cautioning in respect to her work during the year 1912.

There were two cases of Puerperal Fever ; one recovered, and the other, who had pneumonia, died.

During the year two midwives went to live abroad, one retired through ill-health, two died, and two new midwives sent in notice of intention to practice.

I have the honour to be, Sir,

Your obedient servant,

M. MONK.

Public Analyst's Report

FOR THE YEAR ENDING 31ST DECEMBER, 1912.

To the Chairman and Members of the Health Committee.

GENTLEMEN,

I beg to present to you my Report for the year ending 31st December, 1912.

During the year 1,140 samples were submitted to me by your Inspector for analysis under the " Sale of Food and Drugs Acts " ; of these 1,088 were returned of genuine quality and 52 adulterated.

The number of samples examined is similar to the number examined during the previous year, and included 95 samples of drugs.

Of the 52 samples found to be adulterated 27 were milk, but the number and also the percentage of adulterated milk samples was considerably less than the number returned as adulterated during 1911.

Altogether 29 samples were submitted for analysis by private purchasers, and two of these samples were returned as adulterated. In one case a sample of milk was found to contain 11.6 per cent. of added water, and a sample of Liquid Extract of Ipecacuanha was found to be deficient in total alkaloids to the extent of 15 per cent.

The following Table shows the nature of the samples examined, with the number adulterated in each case.

TABLE A.

Nature of Sample	Number Examined	Number Genuine	Number Inferior	Number Adulterated	Percentage Adulterated
Milk	480	453	50	27	5·6
Skimmed Milk	21	21	..	..	..
Condensed Milk	5	5	..	..	..
Butter	312	297	..	15	4·8
Milk-blended Butter	7	7	..	..	..
Margarine	37	37	..	..	..
Lard	15	15	..	..	..
Cheese	16	16	..	..	..
Tea	3	3	..	..	..
Coffee	30	26	..	4	13·3
Coffee and Chicory	1	1	..	..	..
Cocoa	23	23	..	..	..
Chocolate Powder	1	1	..	..	..
Jam	16	16	..	..	..
Golden Syrup	3	3	..	..	..
Honey	4	4	..	..	..
Mustard	8	8	..	..	..
Pepper	8	8	..	..	..
Baking Powder	4	4	..	..	..
Ground Ginger	4	4	..	..	..
Ground Carraway	2	2	..	..	..
Ground Mace	2	2	..	..	..
Ground Gentian	3	3	..	..	..
Malt Vinegar	5	4	..	1	20·0
Flour	4	4	..	..	..
Bread	6	6	..	..	..
Suet	2	2	..	..	..
Rice	5	5	2	..	..
Milk Powder	1	1	..	..	..
Frying Oil	1	1	..	..	..
Whisky	5	4	..	1	20·0
Rum	2	1	..	1	50·0
Gin	2	1	..	1	50·0
Brandy	2	2	..	..	..
Beer	5	5	..	..	..
Albulactin	1	1	..	..	..
Pepsine	1	1	..	..	..
Seidlitz Powders	6	6	..	..	..
Cod Liver Oil	3	3	..	..	..
Camphorated Oil	17	17	..	..	..
Eucaliptus Oil	2	2	..	..	..
Castor Oil	10	10	..	..	..
Olive Oil	9	9	..	..	..
Glycerine	3	3	..	..	..
Tincture of Iodine	8	8	..	..	..
Cream of Tartar	4	4	..	..	..
Milk of Sulphur	6	6	..	..	..
Boric Acid Ointment	6	5	..	1	16·6
Carbolic Acid Ointment	6	6	1	..	..
White Precipitate Oint.	5	5	..	..	..
Aromatic Spirit of Amm.	1	1	..	..	..
Liquid Ext. of Cinchona	2	2	2	..	..
Liq. Ext. of Ipecacuanha	2	1	1	1	50·0
Amm. Tinct. of Quinine	3	3	..	..	..
	1140	1088	56	52	4·5

TABLE B.

ADULTERATED SAMPLES.

No.	Nature of Sample	Nature of Adulteration	Observations
4	Milk	5·7% of added water ..	Fined 10/- towards Costs.
53	Butter	3·5% excess of water ..	(Test Sample.)
55	Milk	8·6% deficient in fat ..	Fined 9/6 and 10/6 Costs.
74	Do.	12·7% of added water ..	Fined 40/- and 26/- Costs.
75	Do.	4·4% ,, ,, ,, ..	Not proceeded with after previous case.
130	Coffee	55% of Chicory ..	(Test Sample)
131	Boric Acid Ointment ..	58% deficient in Boric Acid	Do.
144	Milk	4·6% deficient in fat ..	Cautioned by M.O.H.
165	Do.	6% ,, ,, ..	Defendant pleaded guilty, Case dismissed.
180	Do.	31·5% grains of Boric Acid per gallon	Cautioned by M.O.H.
184	Do.	3% of added water ..	Fined £4 2s. & 18/- Costs.
209	Do.	33·3% deficient in fat ..	(Test Sample.)
219	Do.	3·5% of added water ..	Cautioned by M.O.H.
225	Do.	4% deficient in fat ..	,, ,,
267	Do.	3·6% ,, ,, ..	,, ,,
274	Malt Vinegar ..	40% other than Malt Vin.	,, ,,
291	Milk	3·3% deficient in fat ..	,, ,,
296	Do.	3·6% ,, ,, ..	,, ,,
325	Butter	Consisted of Margarine ..	(Test Sample.)
335	Do.	,, ,, ..	Do.
337	Milk	11·6% of added water ..	Sent in by Private Person
346	Butter	Consisted of Margarine ..	Fined 60/- and 10/6 Costs.
355	Milk	10·6% deficient in fat ..	Fined the Costs 15/-
360	Do.	5·3% of added water ..	Fined 51/6 and 8/6 Costs.
419	Do.	7·6% deficient in fat ..	Fined 6d. and 14/6 Costs.
465	Do.	28·6% ,, ,, ..	Case dismissed on warranty
501	Do.	10·6% ,, ,, ..	Fined 20/- and 14/- Costs.
600	Butter	Consisted of Margarine ..	(Test Sample.)
615	Milk	4% deficient in fat ..	Cautioned by M.O.H. (Farmer's Milk.)
618	Butter	Consisted of Margarine ..	(Test Sample.)
631	Milk	40·1% of added water ..	Fined £7 and 9/6 Costs.
633	Butter	Consisted of Margarine ..	Fined 30/6 and 9/6 Costs.
635	Liq. Ext. of Ipecacuanha	15% deficient in total Alk.	Sent in by Private Person.
653	Coffee	60% of Chicory ..	(Test Sample.)
663	Milk	4% deficient in fat ..	Fined 31/6 and 8/6 Costs.
705	Do.	5·3% ,, ,, ..	.....
713	Do.	6% of added water ..	Fined 6/- and 14/- Costs.
837	Butter	Consisted of Margarine ..	(Test Sample.)
854	Do.	,, ,, ..	Do.
881	Do.	,, ,, ..	Vendor died before summons was served.
906	Irish Whisky ..	20% excess of water ..	Fined 49/6 and 10/6 Costs.
995	Coffee	50% of Chicory ..	(Test Sample.)
1017	Do.	75% ,, ..	Fined 6/- and 14/- Costs.
1026	Milk	10% deficient in fat ..	Fined 30/- and 10/6 Costs.
1069	Do.	23% ,, ,, ..	Fined 10/6 and 9/6 Costs.
1100	Rum	26·9% excess of water ..	No Prosecution.
1101	Gin	21% ,, ..	Do.
1117	Butter	Consisted of Margarine ..	(Test Sample.)
1119	Do.	Contained 35% of fat other than butter fat ..	Do.
1122	Do.	Consisted of Margarine ..	Fined 40/- and 9/6 Costs.
1127	Do.	Contained 40% of fat other than butter fat ..	(Test Sample.)
1128	Do.	Contained 35% of fat other than butter fat ..	Fined 40/- and 16/- Costs.

Total Fines, including Costs, amounted to £44 6s. 0d

There were no cases of refusing to serve or of obstructing or impeding the Inspector. Several milk vendors were warned for selling milk without being registered, and also for not having their names and address on the receptacle from which milk was served.

Under the " Margarine Act " five vendors were proceeded against for selling margarine in plain paper wrappers. One case was dismissed by the Magistrates, who held it was no fraud on the public. In the other cases no further action was taken, as the vendors were fined for selling margarine as butter.

TABLE C.

Table showing the number of samples analysed and the number found adulterated during the last five years in Portsmouth.

	Year	Samples Examined	Number Adulterated	Percentage Adulterated
PORTSMOUTH	1908	1027	86	8·3
Do.	1909	912	62	6·7
Do.	1910	1005	75	7·4
Do.	1911	1123	54	4·8
Do.	1912	1140	52	4·5
ENGLAND AND WALES ..	1910	100749	8252	8·1
Do. do. ..	1911	103221	9005	8·7

The percentage and number of samples reported against in Portsmouth show a small diminution when compared with the returns of the previous year. The small decrease is accounted for by less milk samples having been found to be adulterated.

In the last annual return of the Local Government Board (1911) it is shown that the adulteration of foods and drugs is steadily decreasing, and this is well illustrated if the average percentage of adulterated food and drugs samples be tabulated in quinquennial periods. Thirty years ago, 1882-6, the percentage of samples reported against was 13.9, whilst during 1907-1911 the percentage had fallen to 8.2. Attention is again called in the above report to the inadequate fines frequently inflicted by Magistrates in cases of food adulteration, and the Home Secretary has recently again drawn the attention of Justices to this fact. During 1911 in England and Wales there were 11 defendants fined Sixpence each for adulterating food stuffs, four of these defendants appeared in the Portsmouth Police Court.

MILK.

Compared with the previous year there was a decrease in the number and percentage of milk samples reported against. The following table gives the samples returned as adulterated during the past six years at Portsmouth.

TABLE D.

Year	Number Examined	Number Adulterated	Percentage Adulterated
1907	591	58	9·8
1908	518	27	5·4
1909	406	33	8·1
1910	523	43	8·2
1911	544	34	6·2
1912	480	27	5·6

In the latest available returns of the Board of Agriculture (1911) the percentage of milk samples recorded as adulterated in England and Wales was 11.9. Taking this figure into consideration the percentage of Portsmouth milk samples found adulterated is not high.

Altogether 50 samples of milk were returned of inferior quality, and these samples in almost every case were deficient in fat and containing 3.0 per cent. of fat or very slightly less. A large number of samples were of poor quality, and roughly one-third of the milk examined, disregarding adulterated samples, contained 3.2 or less of fat.

The monthly averages of the result obtained on the milk samples examined in Portsmouth do not differ greatly from previous averages. The mean figure for solids not fat was very high throughout October, November and December. The table below gives the mean monthly figures obtained on the milk samples examined. The adulterated samples not being included.

TABLE E.

Month	Total Solids	Fat	Solids not Fat
January	12·26	3·58	8·68
February	12·25	3·47	8·78
March	12·09	3·34	8·75
April	12·18	3·35	8·83
May	12·37	3·47	8·90
June	12·20	3·42	8·78
July	12·12	3·37	8·75
August	12·49	3·63	8·86
September	12·63	3·62	9·01
October	12·69	3·60	9·09
November	12·70	3·68	9·02
December	12·81	3·78	9·03
Annual Mean ..	12·40	3·52	8·88

On the last page of this Report will be found curves comparing the above results with those obtained by Mr. H. D. Richmond, F.I.C., during 1912. His figures represent the mean results of about 20,000 samples of milk, representing both morning and evening supplies.

The variation in the mean annual figures obtained during the last five years at Portsmouth is shewn under.

TABLE F.

Year	Number Examined	Fat	Solids not Fat
1908	491	3·57	8·83
1909	373	3·59	8·76
1910	480	3.51	8·79
1911	510	3·51	8·78
1912	453	3·52	8·88
1912	(Richmond)	3·68	8·86

The adulterated samples have been excluded from the above table.

Altogether 56 samples of farmer's milk were taken at the Town Station on arrival, and five of these were found to be below the standard, two being deficient in fat and three to contain added water. Two of the samples containing added water were obtained from a farmer who had had two convictions recorded against him for similar offences during the previous year. The mean composition of the farmer's milk examined was 3.36 per cent. of fat and 8.77 per cent. of solids not fat. These results, however, do not represent the average quality of the milk arriving in the town, for they are only taken by the request of a milk vendor, and generally only when the vendor doubts the quality of the milk with which he is being supplied. Any milk arriving in the town is immediately sampled should the consignee desire an analysis to be made.

There were 37 samples of milk taken from consignments at the Kingston Workhouse, Infectious Diseases Hospital, and Royal Hospital. These samples were all of good quality and had the average composition of 3.62 per cent. of fat and 8.96 per cent. of solids not fat. It is necessary according to the specifications in use at the above institutions that all milk supplied should contain at least 3.5 per cent. of fat and a minimum of 8.5 per cent. of solids not fat. Under the Food and Drugs Acts a milk should contain 3.0 per cent., or more, of fat to be deemed of genuine quality.

Over 35 per cent. of the samples of milk were coloured with a coal tar dye, the great majority of the remainder contained other artificial colouring.

A few samples were taken by your Inspector on the request of householders at their homes. By this means at least one old offender, who is otherwise very difficult to catch selling adulterated milk, was eventually prosecuted and convicted. Three samples taken in the above instance at the house, without the knowledge of the milk vendor, on consecutive days, gave the results below :—

(1) Deficient in fat to the extent of 48.4 per cent.
(2) ,, ,, ,, ,, 80.0 ,,
(3) ,, ,, ,, ,, 60.0 ,,

On the following day an official sample was taken by the Inspector as the milk was being delivered at the door of the house, and was found to contain 40 per cent. of added water. In each of the above cases a quantity of artificial dye was present in the milk, which masked the poor quality.

The 21 samples of skimmed milk were found to be genuine. The quantity of fat present varied from 0.2 per cent. to 2.7 per cent., five samples containing 1 per cent. or more of fat. The mean composition of the samples was 0.66 per cent. fat and 9.1 per cent. of solids not fat. According to the "Sale of Milk Regulations, 1912" a skimmed or separated milk must contain 8.7 per cent. of milk solids other than milk fat, or it shall be presumed to be adulterated until the contrary is proved. This is a new standard, the old standard having been revoked.

In only one case was boric acid found to be present in the milk samples submitted for analysis, the milk containing 31.5 grains of boric acid per gallon. A letter of caution was sent by the Medical Officer of Health to the vendor of this milk. No other preservative was detected in milk. The rare occurrence of a preservative in milk as sold in Portsmouth during recent years is shown by the following table.

TABLE G.

Year	Number Examined (Portsmouth)	Samples containing Boric Acid
1906	567	14
1907	591	5
1908	518	—
1909	413	—
1910	523	1
1911	544	—
1912	480	1

During the year new regulations came into force regarding milk and cream. The Public Health (Milk and Cream) Regulations, 1912, prohibit the addition of preservatives to milk, and also cream which contains less than 35 per cent. of fat. To cream containing more than 35 per cent. of fat boric acid or hydrogen peroxide may be added, but such cream must then be described as preserved cream. If boric acid be added to preserved cream the receptacle containing the preserved cream must bear a label setting forth the maximum amount of boric acid which may be present, the size of the label being determined according to the capacity of the receptacle. Refreshment rooms selling preserved cream for consumption on the premises are not required to label such cream, but are required to conspicuously display a large typed notice to the effect that the cream sold is preserved, or otherwise adequately intimate to customers that their cream contains a preservative.

BUTTER, CREAM, CHEESE, CONDENSED MILK, LARD AND MARGARINE.

Compared with the previous year there was a large increase in the number of butter samples submitted for analysis and found to be adulterated. This necessitated a larger number of samples of butter being taken, in order that this adulteration might be stopped. Fifteen samples of butter were reported against, and this number is compared in the following table with the numbers obtained during recent years.

TABLE H.

Year	Number of Butter Samples Examined	Number Adulterated	Percentage Adulterated
1908	229	24	10·4
1909	221	14	6·3
1910	211	17	8·0
1911	227	4	1·7
1912	312	15	4·8

Of the adulterated samples eleven consisted entirely of margarine ; two contained 35 per cent. and one 40 per cent. of margarine, and in one case excessive moisture was present. In some of the above cases adulterated butter was only sold to the agent of the Inspector after several visits, and it is a general custom of the adulterator to sell pure butter to chance

customers, the adulterated article being reserved for regular customers. This fact, unfortunately, necessitates the taking of several samples from each shop before the honesty of the vendor can be ascertained.

The average quantity of water found in butter was 13.2 per cent., a somewhat higher figure than was obtained the previous year. About 27 per cent. of the samples contained 12 per cent. or less of water and 25.5 per cent. contained 15 per cent. or more.

The Margarine samples were in every case of genuine quality. The water content varied from 8.8 to 15.2 per cent., the mean amount being 13.1 per cent. In no case did the butter fat exceed the legal limit of 10 per cent., and no objectionable fats were found present.

The maximum percentage of water permitted in milk blended butter is 24 ; the samples examined contained from 22.7 to 25.0 per cent., the average percentage being 23.4.

Starch did not enter into the composition of any butter or margarine sample examined.

Of the 312 samples of butter examined 79.8 per cent. contained boric acid, the average amount of boric acid present in the samples that contained it being 0.27 per cent. The quantity varied from 0.1 per cent. to 0.54 per cent., and in 13 cases only exceeded 0.5 per cent. The amount of boric acid found in margarine varied from 0.1 to 0.5 per cent., the average quantity being 0.27. Of the margarine samples examined 66 per cent. contained boric acid. All the milk blended butters contained boric acid in amounts varying from 0.22 to 0.54 per cent., the mean percentage being 0.27.

A Cheese sold as cream cheese was found to contain 17.7 per cent. of fat, the other samples containing an average of 32.8 per cent. of fat. The fat content of cheese is extremely variable, owing to the fact that cheese may be made from whole milk or skimmed milk, and a standard might very well be imposed which would necessitate the presence of a certain quantity of fat in cheese, and any cheese which did not comply with the standard should be sold as skim milk cheese. The fat content of the samples of cheese examined varied from 14.6 to 41.7 per cent.

The full cream condensed milks examined had an average fat content of 11.5 per cent. ; only one sample of machine skimmed condensed milk was submitted for analysis, this specimen containing 2.8 per cent. of fat.

The samples of Lard submitted for analysis were all found to be of genuine quality. In no case was a lard substitute offered for sale as lard.

Two samples of shredded suet were examined and found to be genuine ; the starch, which was admitted to be present, amounted to 17.4 per cent. in one case and 18.3 per cent. in the other.

A purchaser brought to the laboratory a sample of Oil, which he had purchased for fish-frying purposes, and which was stated to have made several people ill. The last statement was no doubt true, for the oil was found to consist of mineral lubricating oil. Purchases of oil were made at the shop said to be selling this oil, but we were unable to obtain a similar sample.

GROCERIES, &c.

COFFEE.—Of 30 samples submitted for analysis four were found to be adulterated with chicory. In one case only was the vendor prosecuted and fined. A purchaser has undoubtedly the right to know the nature of the article he is buying, and if coffee is demanded, coffee should be handed to the purchaser, or the fact that a mixture of coffee and chicory is being sold should be clearly pointed out. The specimen of coffee and chicory contained 76 per cent. of chicory.

MALT VINEGAR.—One sample examined was found to contain only 56 per cent. of malt vinegar. On the result of the analysis being made known to the vendor it was shown that the wholesale dealers consigned the article as "pure vinegar," though the wholesaler admitted mixing malt vinegar with its own volume of wood vinegar. The term pure vinegar had undoubtedly deceived the shop keeper, who thought the vinegar was malt vinegar.

RICE.—Several samples of Rice were examined to ascertain whether the mineral matter frequently added to rice was excessive. Two samples were returned as of inferior quality, owing to the mineral matter exceeding 0.5 per cent., the amount suggested as a maximum in a Local Government Board report.

BAKING POWDER.—The samples examined were all of genuine quality, but there is however a large quantity of baking powder sold which is almost useless for the purpose for which it is intended. No alum was detected in the samples.

DRUGS.

About 100 samples of Drugs were submitted for analysis, and two only of these were returned as adulterated, four being of inferior quality. All the samples of camphorated oil and tincture of iodine were of the requisite strength demanded by the British Pharmacepoeia.

One sample of boric acid ointment contained less than half of the amount of boric acid that the ointment should contain, and one sample of carbolic acid ointment was deficient in carbolic acid.

Two samples of the liquid extract of cinchona were slightly deficient in total alkaloids and were reported of inferior quality.

A sample of liquid extract of ipecacuanha was deficient in alkaloids to the extent of 15 per cent., and was returned as adulterated ; another sample, in which the deficiency was small, was passed as of inferior quality.

As a general rule the drug samples examined were of standard strength and had been carefully prepared.

MISCELLANEOUS SAMPLES.

In addition to the samples examined under the Food and Drugs Acts, 151 analyses of various substances were carried out for Corporation Departments and the Union. The samples examined were as follows :—

Paints	..	24	Engine Oil	..	9
Linseed Oil	..	8	Asphalte	..	5
Turpentine	..	11	Varnish	..	13
Lard Oil	..	3	Terebene	..	2
Russian Tallow		6	Granite	..	2
Soap Powder	..	5	Knotting	..	1
Soda	..	5	Dryers	..	2
Soft Soap	..	2	Disinfectants	..	2
Yellow Soap	..	4	Rag flock	..	1
Carbolic Soap	..	1	Sewage	..	1
Rock Cocoa	..	3	Water	..	27
Cart Grease	..	5			
Paraffin	..	6			151
Colza Oil	..	3			

Some of these samples contained adulterants, or were condemned, as they failed to agree with their respective specifications.

The water samples were taken from the town mains and from Baffins Tip.

In conclusion I should like to refer to the efficient manner in which Inspector J. S. Hobbs has carried out his duties, and also to the valuable help afforded me in the Laboratory by Mr. J. Richardson.

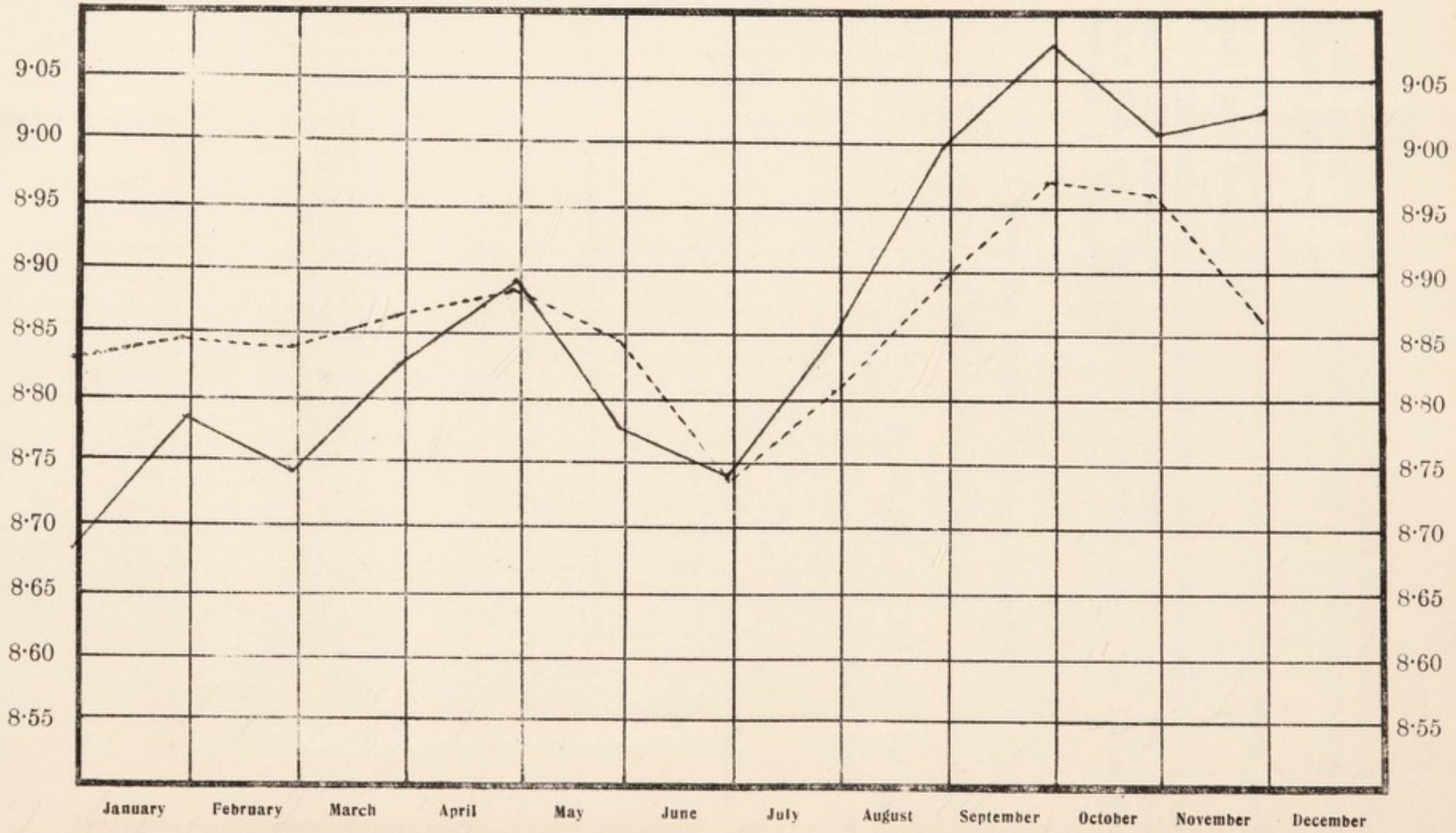
I have the honour to be, Gentlemen,

Your obedient servant,

F. W. F. ARNAUD, F.I.C.,

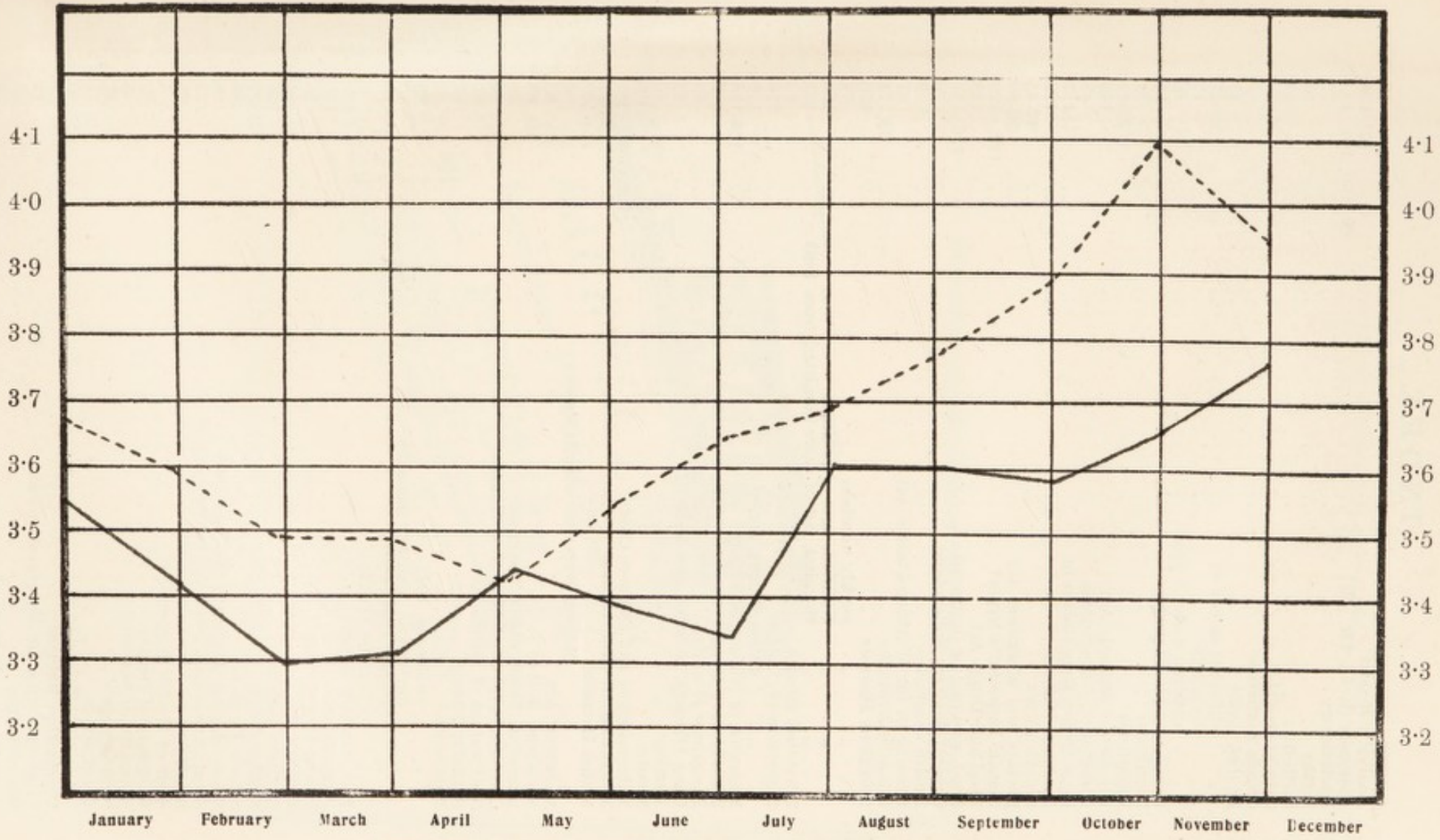
Public Analyst.

Curve shewing the Composition of Portsmouth Milk Supply.



SOLIDS-NOT-FAT CURVE. Black Line—Portsmouth Figures 1912

Curve shewing the Composition of Portsmouth Milk Supply.



FAT CURVE. Black Line—Portsmouth Figures 1912
Dotted Line—Richmond's Figures 1912

INDEX.