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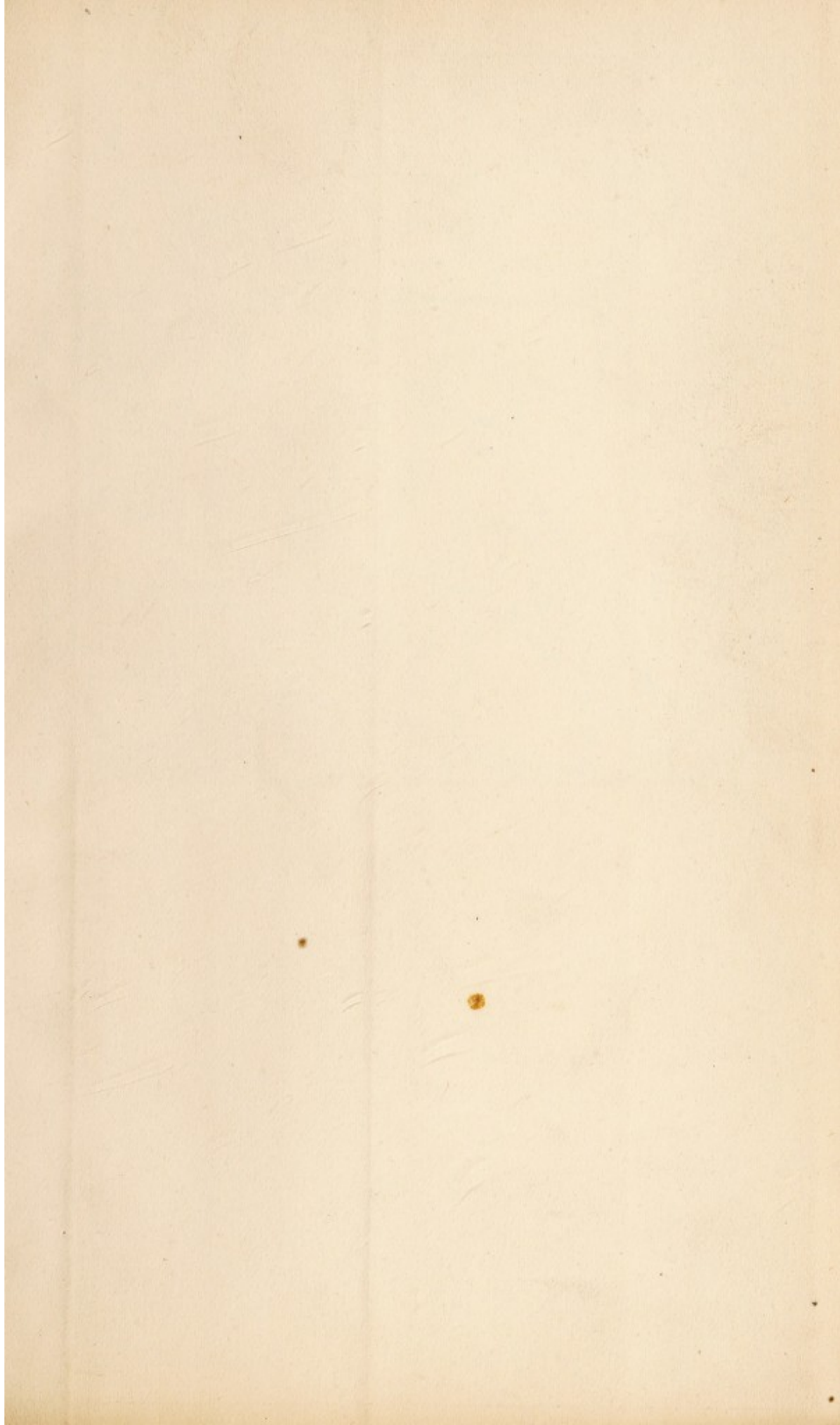
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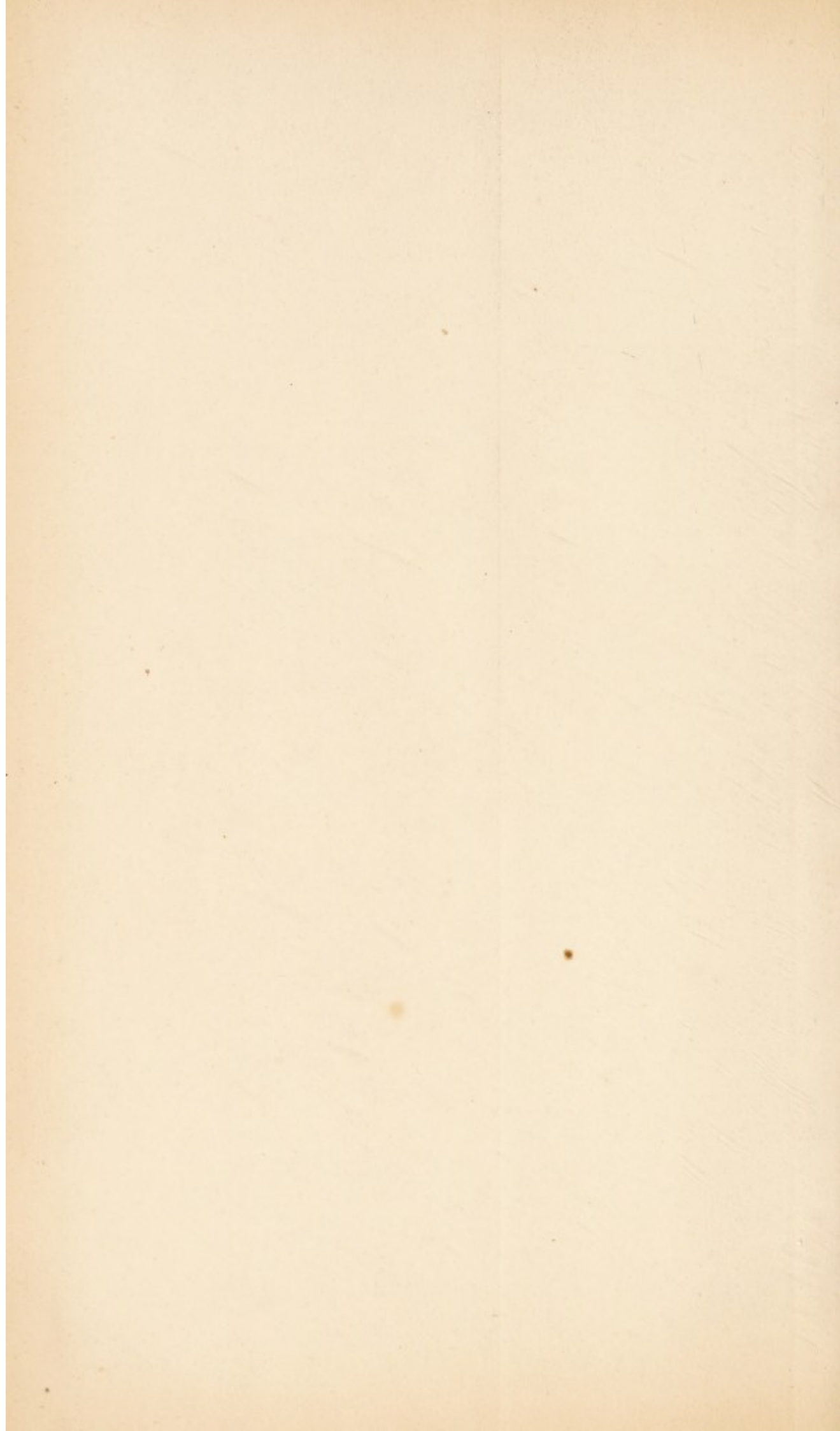
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MAP SHOWING INCIDENCE OF CERTAIN INFECTIOUS DISEASES IN PORTSMOUTH DURING THE YEAR 1895





BOROUGH OF PORTSMOUTH.

REPORT

ON THE

Health of Portsmouth

FOR THE YEAR 1895,

With an Appendix—being

Life Tables for the Borough

Based upon the years 1881 to 1890.

BY

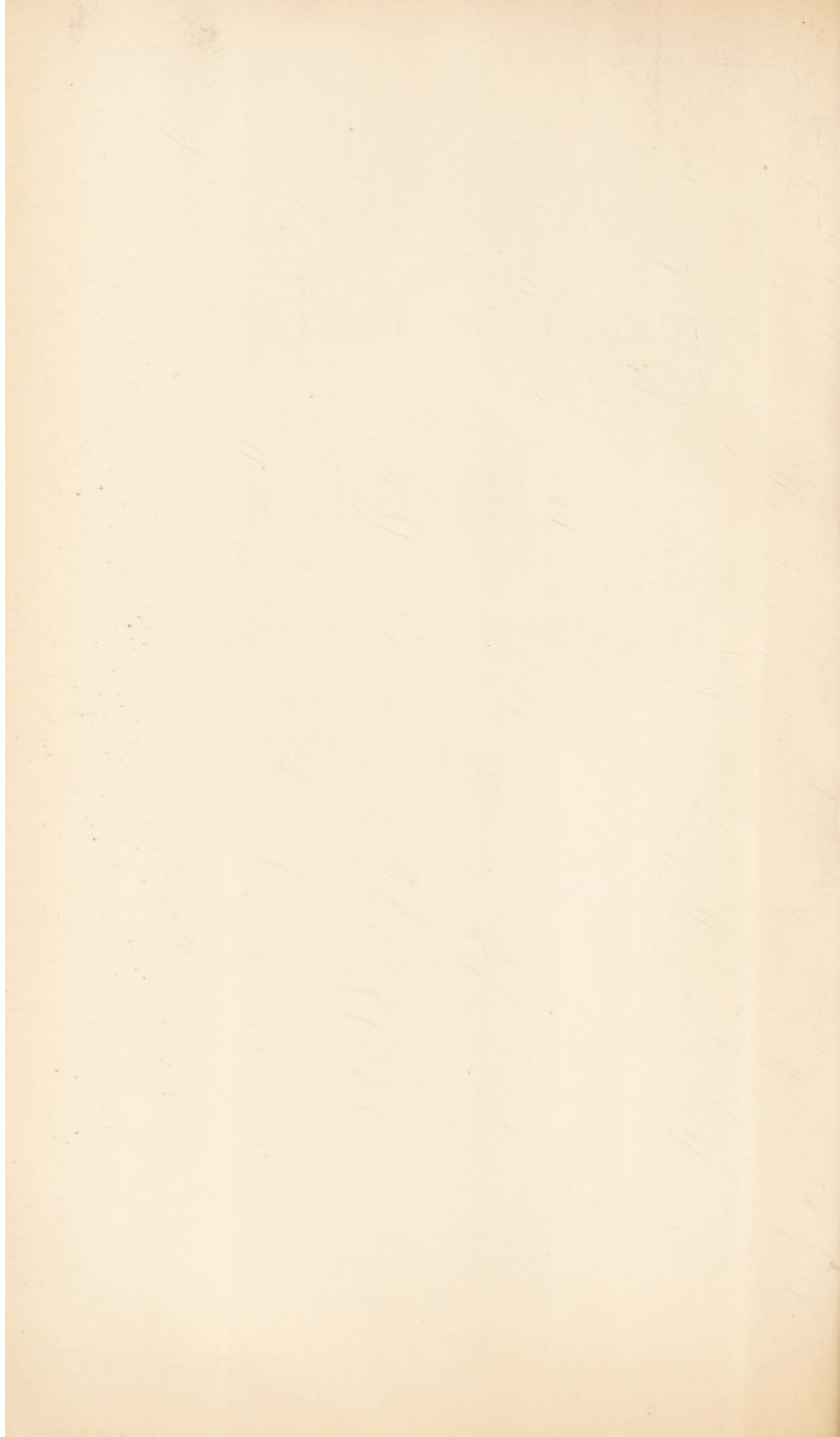
B. H. MUMBY, M.D., Aberd.

D.P.H. Cambs.; F.R.Met.S.; F.S.S.

Medical Officer of Health and Public Analyst for the Borough;
Medical Officer of Health for the Port of Portsmouth; and
Medical Officer to the Milton Infectious Diseases Hospital.

Portsmouth:

HENRY LEWIS, CAXTON PRINTING WORKS,
114, HIGH STREET.



Drainage & Sanitary Committee.

The Worshipful the Mayor—J. J. YOUNG, Esq., J.P.

Chairman—

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

Vice-Chairman—

ALDERMAN THOMAS KING, J.P.

ALDERMAN ROBERT BARNES, J.P.

COUNCILLOR G. ASHDOWNE

COUNCILLOR H. I. EVANS

„ J. BAGGS

„ J. W. GIEVE

„ T. E. BASKETT

„ H. KIMBER

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„ W. T. DUPREE

„ H. R. PINK

„ R. EMMETT, L.R.C.P.

„ G. YOUNG

Officers of the Medical Officer of Health's Department

Medical Officer of Health—

B. H. MUMBY, M.D., D.P.H.

Inspector of Nuisances—

F. L. BELL, CERT. SAN. INST.

Inspector C.D.A. Act, and Inspector of Nuisances—

G. W. MONCKOM

Clerk—

C. W. HEARN

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H. G. GRAY, CERT. SAN. INST.

W. H. TURNER, CERT. SAN. INST.

G. L. SCOTT, CERT. SAN. INST.

G. T. BILLING, CERT. SAN. INST.

Inspector of Workshops and Inspector of Nuisances—

W. E. BENJAMIN, CERT. SAN. INST.

Assistant Clerk—

T. V. SMITH

Disinfector—

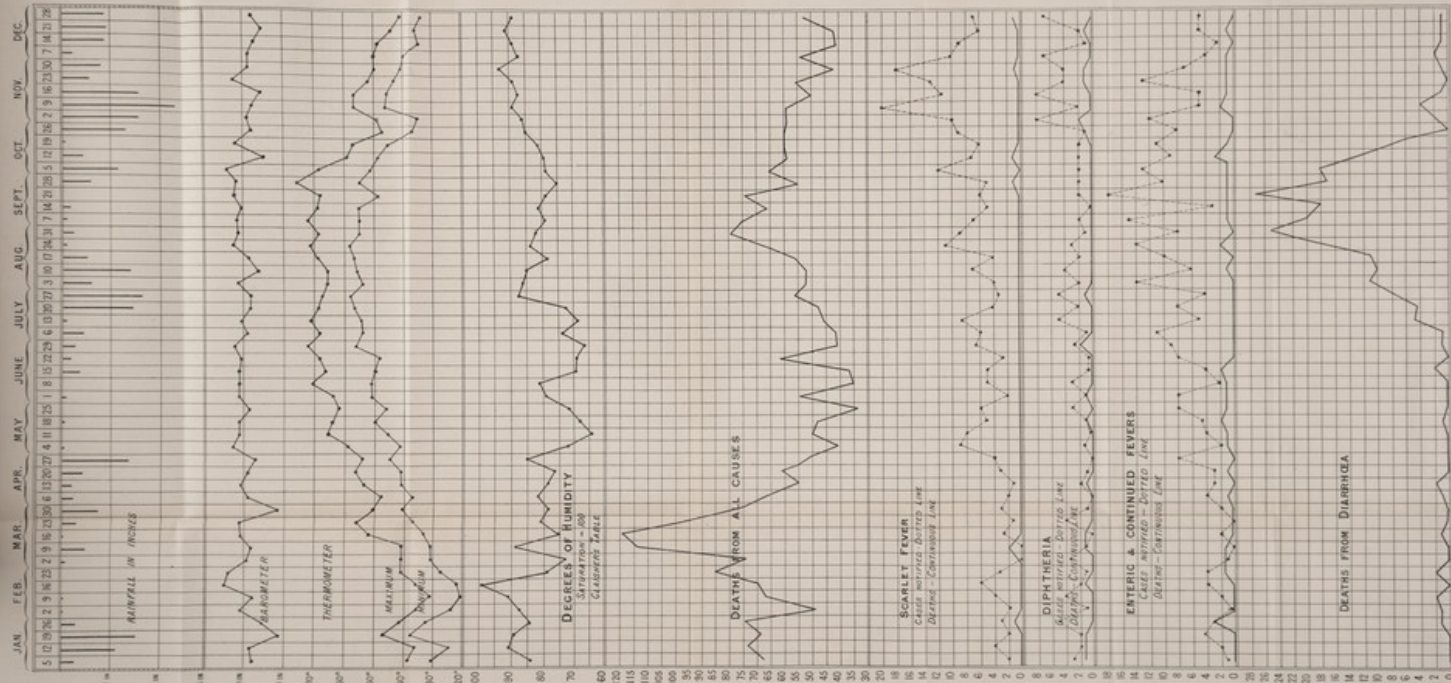
A. AYLMER


Infectious Diseases Hospital

Matron—

MRS. M. A. ANTRAM

METEOROLOGICAL AND DISEASE CHART FOR 1895.





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Abstract of Meteorological Observations made at Milton Hospital during the year 1895.

DATE.		Barometer reduced to Sea Level and 32° F.	TEMPERATURE												WIND										RAINFALL.												
			IN SHADE								IN SUN		ON GRASS		Mean of Earth below Ground		Wet Bulb	Humidity Mean, 9 a.m.	Total Sunshine registered by Jordan's Recorder	Cloud. Mean Amount, 9 a.m.	NUMBER OF DAYS						TOTAL	No. of Days on which or more Rainfall	Greatest Fall in 24 hours	Date of Greatest Fall							
			Mean 9 a.m.	Mean Max.	Mean Min.	Mean of Max. & Min.	Mean Range	Highest Max.	Lowest Min.	Brightest in Sun	Brightest in Sun	Mean Min.	Lowest Min.	1 Ft.	4 Ft.	Mean 9 a.m.							N.	N.E.	E.	S.E.	S.				S.W.	W.	N.W.				
Week ending.																																					
January	5 ..	29.72	33.6	38.7	31.3	35.0	7.4	43.0	28.0	71.4	49.5	24.5	19.5	37.9	47.1	32.1	84	22	10	5.1	3																
"	12 ..	29.80	30.1	36.0	28.2	30.5	10.8	41.0	22.0	77.5	51.8	16.8	12.0	36.3	45.8	29.5	91	13	35	6.7	1	5															
"	19 ..	29.23	41.6	45.7	37.2	41.5	8.5	41.0	28.0	81.9	57.1	29.2	20.0	37.6	45.3	40.4	89	15	45	8.8																	
"	26 ..	29.64	37.8	44.8	33.4	38.1	9.4	51.0	28.5	72.4	51.6	27.7	19.0	39.4	45.1	39.0	84	15	45	6.7	1																
February	2 ..	29.81	24.8	31.0	19.8	24.4	11.2	35.0	17.0	78.1	47.1	13.8	5.0	32.8	42.8	24.7	91	20	10	3.4	5	2															
"	9 ..	29.49	27.2	34.7	22.5	28.6	12.2	39.0	18.0	81.6	51.8	34.9	5.0	32.2	42.3	27.1	98	31	50	3.2	3	2															
"	16 ..	29.36	32.7	40.8	27.7	34.3	13.1	46.0	21.5	72.8	52.1	20.1	7.0	32.1	42.0	31.6	79	17	55	5.8	3	1															
"	23 ..	29.01	35.6	44.2	31.2	36.2	10.0	47.0	27.5	88.0	56.6	24.3	19.5	35.7	42.0	33.4	73	27	55	4.3	4																
March	2 ..	29.07	35.3	41.5	31.4	38.5	10.1	46.0	25.5	90.0	57.7	23.0	16.0	34.6	41.5	34.3	89	16	20	3.1	1	1															
"	9 ..	29.12	44.5	51.7	34.2	42.7	17.5	53.5	29.0	99.3	65.8	26.9	20.0	39.6	41.1	39.4	75	48	30	4.0	1																
"	16 ..	29.06	45.1	56.1	38.5	47.3	17.6	61.5	34.0	102.0	71.1	31.4	22.0	44.3	41.6	43.5	81	34	45	7.1	1	1															
"	23 ..	29.22	45.8	56.2	40.8	45.5	9.4	54.0	39.0	106.3	68.9	36.7	32.0	49.2	41.6	43.5	79	34	50	8.8																	
April	6 ..	29.88	41.8	48.4	37.4	42.9	11.0	49.5	37.0	100.1	66.4	39.3	22.0	44.4	44.5	40.2	82	15	30	7.8	3	1															
"	13 ..	29.05	47.6	54.5	40.8	47.7	13.7	61.0	37.5	114.4	75.4	33.9	25.0	47.4	45.1	44.8	79	41	35	4.0	2																
"	20 ..	29.90	49.4	57.5	41.0	49.3	16.5	65.0	36.0	115.9	77.6	34.4	29.0	48.8	46.1	46.2	77	55	3.0		2	3															
"	27 ..	29.69	49.3	55.4	45.7	50.5	9.5	59.0	43.5	117.0	79.6	40.8	31.0	52.6	47.3	48.3	85	22	30	9.8	1	2															
May	4 ..	29.34	52.0	59.5	48.0	50.8	17.5	64.5	38.5	120.8	80.6	35.1	29.0	52.3	48.6	48.3	72	50	20	3.1	2	1															
"	11 ..	29.14	58.1	65.0	46.0	55.8	19.6	71.5	39.5	124.0	85.7	38.5	34.0	55.4	49.6	51.7	64	77	10	1.2	2	2															
"	18 ..	29.05	56.6	62.8	49.8	56.6	13.0	74.0	41.8	120.6	82.0	45.1	39.0	58.5	51.4	50.9	68	50	45	5.8	4																
"	25 ..	29.83	55.8	62.0	46.1	54.1	15.9	67.0	44.0	121.0	81.5	39.0	34.0	59.2	52.2	51.7	72	55	30	4.1	1	2															
June	1 ..	29.08	58.9	64.3	51.2	57.7	13.1	71.5	46.0	124.5	84.9	42.0	34.5	61.4	53.5	55.7	78	64	20	2.0	1																
"	8 ..	29.15	62.2	70.8	51.2	61.1	16.6	78.0	47.0	131.1	92.1	44.1	35.0	61.6	55.0	56.6	81	61	55	2.0	2	4															
"	15 ..	29.09	60.1	66.5	50.0	58.3	16.5	76.0	45.5	130.7	89.4	42.5	33.5	62.9	56.0	54.2	69	56	25	3.0	1	2															
"	22 ..	29.03	61.1	68.1	48.5	59.8	19.6	71.0	41.0	127.9	89.1	43.3	33.0	62.0	56.7	55.7	69	57	10	2.0	4																
"	29 ..	29.16	65.7	71.7	55.5	61.6	16.2	78.5	51.5	131.2	92.6	47.7	38.0	67.1	57.8	58.8	67	58																			
July	6 ..	29.07	61.6	66.9	54.5	60.7	12.4	71.0	50.0	131.0	89.5	49.2	40.0	64.4	58.5	57.1	74	41	25	6.0	1	1															
"	13 ..	29.02	58.0	70.8	54.3	62.6	16.5	73.0	49.5	131.1	92.4	47.1	39.0	66.6	59.3	58.8	67	61	35	4.0	1	1															
"	20 ..	29.82	62.2	68.2	59.4	64.4	11.8	71.0	51.0	131.6	91.0	51.2	45.5	66.6	60.1	57.1	73	39	25	7.0	1																
"	27 ..	29.80	62.6	66.3	58.0	61.2	8.3	78.0	53.0	121.0	86.5	54.4	43.5	65.0	60.5	60.3	87	31	8.0																		
August	3 ..	29.14	59.5	65.1	53.3	59.2	11.8	67.5	61.0	121.0	84.6	48.8	40.0	64.1	60.5	57.4	86	24	50	9.7																	
"	10 ..	29.68	61.4	63.3	55.1	60.2	10.2	70.0	51.0	120.1	84.4	79.4	44.0	64.2	60.5	58.2	85	29	10	6.0																	
"	17 ..	29.66	62.8	68.7	56.4	62.6	12.3	71.5	54.0	131.2	92.4	50.0	44.5	65.6	60.8	59.7	78	59	15	4.0																	
"	24 ..	29.18	66.2	71.5	57.9	64.7	13.6	74.5	53.0	130.7	92.0	54.9	45.0	66.9	61.1	61.1	84	60	10	3.0	1	1															
"	31 ..	29.14	62.7	67.6	56.4	62.0	11.2	70.5	49.0	124.1	87.4	64.5	41.0	66.2	61.5	59.4	83	58	45	4.0																	
September	7 ..	29.07	60.0	72.0	55.8	61.8	16.2	78.0	47.0	129.5	91.8	48.5	37.5	65.5	61.9	62.3	79	58	5	2.0	1																
"	14 ..	29.05	61.3	69.4	55.5	62.4	13.9	78.0	48.0	124.4	88.4	47.1	37.0	64.9	61.7	59.2	81	49	45	2.0																	
"	21 ..	29.02	58.5	67.9	48.6	58.3	19.3	71.5	46.0	123.2	87.1	40.8	37.0	60.5	61.2	55.6	79	51	40	4.0	1	3															
"	28 ..	29.04	62.0	70.1	54.9	65.4	21.2	79.5	45.0	124.1	92.1	46.0	36.5	61.6	60.6	62.6	75	50	20	0	2	4															
October	5 ..	29.42	59.0	66.7	51.7	59.2	15.0	77.0	53.0	116.4	83.3	44.0	32.0	59.5	60.4	55.7	78	37	30	4.0																	
"	12 ..	29.40	54.0	59.1	49.0	54.1	10.1	63.5	47.0	104.5	64.2	43.6	33.0	55.2	59.8	50.9	79	21	35	5.0																	
"	19 ..	29.24	51.1	57.5	44.5	51.0	13.0	60.0	36.0	105.3	73.8	39.2	28.5	52.8	57.7	45.3	81	26	25	6.0	1	3															
"	26 ..	29.76	41.1	47.4	36.6	42.0	10.8	57.0	30.0	77.5	66.4	31.8	20.0	47.1	59.1	39.8	85	15	45	7.0		2															
November	2 ..	29.86	40.8	48.6	34.6	41.6	14.0	56.5	39.5	87.6	60.9	28.5	22.5	43.2	53.6	39.3	86	23	50	2.0	2	1															
"	9 ..	29.78	51.7	57.0	47.0	52.0	10.0	60.0	38.0	91.5	65.4	43.1	29.5	49.4	52.0	50.7	89	1	20	7.0		2															
"	16 ..	29.64	42.0	50.8	47.4	52.1	9.4	60.0	40.0	98.7	70.3	41.2	35.0	50.1	54.7	50.1	87	19	5	6.0																	
"	23 ..	29.43	47.7	59.5	44.3	47.7	8.2	55.0	34.0	75.5	59.3	38.5	27.0	49.1	53.3	46.5	89				1	3															
"	30 ..	29.93	45.4	49.9	41.5	45.7	8.4	54.5	36.5	55.3	54.1	38.0	33.5	45.6	51.5	45.5	87				1	3															
December	7 ..	29.92	45.7	49.5	40.5	45.0	10.0	55.0	33.5	73.9	57.3	37.1	31.0	45.4	50.8	44.1	87	8	45	5.0																	
"	14 ..	29.83	41.2	48.6	36.4	43.5	12.8	58.5	39.0	73.8	57.7	30.2	28.0	44.5	49.9	39.9	89	18	45	4.0																	
"	21 ..	29.63	40.2	43.3	37.3	40.3	1																														

REPORT
OF THE
MEDICAL OFFICER OF HEALTH
TO THE
URBAN SANITARY AUTHORITY
OF THE
BOROUGH OF PORTSMOUTH

For the Year ending the 31st day of December, 1895.

GENTLEMEN,

I have the honour to present you a Report on the Health of Portsmouth during the year 1895.

In presenting you with this, my last Report, it is gratifying to state that the corrected death rate of the Borough under your control has attained for the second time in succession the second place amongst the great towns of England in respect of the lowness of its death rate.

I trust you will allow me to take this opportunity of thanking you for the unfailing consideration with which you have treated me during my tenure of office as your Medical Officer of Health, which has extended over a period of 10 years and a half, and I should also like to express my thanks to Mr. Bell, Chief Inspector of Nuisances, to the other Inspectors of Nuisances; to Mr. Monkcom, the Meat Inspector; Mr. Hearn, the Chief Clerk; and the other members of the staff of the Health department for the loyalty with which they have striven to carry on the Sanitary work in the Borough and for the good will which has always subsisted between them and me.

I have the honour to remain, Gentlemen,

Your obedient Servant,

B. H. MUMBY, M.D.,

Medical Officer of Health.

Statistics.

The *area* under the control of the Sanitary Authority is 4,486 acres, of which 881 acres are sea water and foreshore.

The *population* in the middle of the year 1895 was estimated to be 174,751, this number being arrived at on the supposition that the increase of numbers since the census in 1891 has continued at the same rate as during the last intercensal period, viz., from 1881-1891. As we recede from the last census, this estimate is more and more likely to be incorrect. It is indeed probable that the number above given is greater than the number of persons actually living in the middle of last year. This statement is founded on the report of Mr. Baxter, the Assistant Overseer, who reports that the number of inhabited houses is 34,230; this multiplied by 5.4, the average number of persons in each house at the census would give a population of 171,842; but on the other hand there are a very large number of houses built and inhabited each year, in each of which I feel sure that the average number living is about six, so that it is possible that the above number of 174,751 may be an under and not an over estimate, and I have therefore adopted it in this Report as the population of the Borough, especially as it is that used by the Registrar-General.

It is much to be regretted that the recent Act of Parliament which caused an enumeration of the population of London to be taken this year did not give the large towns of England a like benefit.

The mean density of the population was 39.1 persons to the acre. The density of the population, however, varies very greatly. A very considerable part of the Borough is still

used for agricultural purposes, but the older part of the town, especially the townships of Portsmouth and Portsea, are getting less and less overcrowded owing to the expansion of the town northwards, where new houses with good accommodation can be obtained at very moderate rents.

The population in each of the sub-districts is as follows: Portsmouth, 6685; Portsea, 15126; Kingston, 65802; Landport, 71247; and Southsea, 15691.

In this Report the old divisions will be referred to, notwithstanding the alteration made by the Registrar-General in 1893, so that the figures in it may be comparable with those in my former reports, and also because the Southsea sub-district is that part of the Borough which is utilised as a health resort, in which the population differs greatly from that in other sub-districts of the Borough.

TABLE I.

Table, showing the Population, Marriages, Inhabited Houses, Births and Deaths, for the year 1895, and the 10 preceding years.

GROSS NUMBERS.

Year	Estimated Population	No. of Inhabited Houses	Marriages	Registered Births	Correct No. of Deaths		
					Total all Ages	Under 1 Year	Under 5 Years
1895	174,751	34,230	1,432	4,868	3,129	856	1,169
1894	170,973	31,377	1,462	4,709	2,593	611	967
1893	167,285	30,984	1,459	4,708	3,058	763	1,171
1892	163,667	30,305	1,464	4,563	3,026	719	1,068
1891	160,128	29,544	1,429	4,803	3,053	665	1,143
1890	156,667	28,875	1,318	4,881	2,847	648	941
1889	153,279	28,206	1,460	4,943	2,565	697	1,036
1888	149,966	27,539	1,358	4,976	2,614	671	988
1887	146,724	26,873	1,395	5,004	2,681	725	1,053
1886	143,552	26,204	1,471	4,918	3,257	885	1,461
1885	140,448	25,537	1,322	4,592	2,676	608	945
Average ten years 1885-94	155,269	28,544	1,416	4,809	2,837	699	1,078

NOTES.

- 1.—Population at Census, 1891 159,255
- 2.—Area in Acres 4,486
- 3.—Average number of persons in each house at Census.. 5.4
- 4... Average number of persons per acre at Census .. 35.5

TABLE II.

Table showing the Annual Birth Rate, Rate of Mortality, and Death Rates among Children for the Year 1895, and 10 years preceding.

Year	Birth Rate per 1000 of the Population	Annual Rate of Mortality per 1000 living from all causes	Annual Rate of Mortality per 1000 living from 7 principal zymotic diseases	Percentage of Deaths of Children under 1 year to Total Deaths	Percentage of Deaths of Children under 1 year to Registered Births	Percentage of Deaths of Children under 5 years to Total Deaths
1895	27.84	17.90	2.31	27.3	17.6	37.5
1894	27.54	15.16	2.07	23.5	12.9	37.3
1893	28.14	18.28	3.09	24.9	16.4	38.3
1892	27.88	18.49	1.89	20.4	15.5	35.3
1891	29.90	19.16	2.49	21.7	13.8	37.4
1890	30.15	18.16	1.69	22.5	13.5	32.7
1889	31.25	16.71	1.95	27.1	14.1	40.3
1888	33.18	17.43	1.33	25.6	13.4	37.5
1887	34.10	18.27	2.24	27.0	14.3	39.2
1886	34.26	22.68	4.87	27.1	17.0	44.6
1885	32.91	19.05	2.24	26.4	13.2	35.2
Average ten years 1885-94	30.93	18.34	2.38	24.6	14.4	37.8

TABLE III.

Showing the Population, Birth Rates, Recorded Death Rates, Corrected Death Rates, Zymotic Rates, and Deaths under 1 Year to 1000 Births in the 33 large Towns for the Year 1895.

NAME OF TOWNS	Estimated Population middle of 1895	PER 1000 LIVING			ZYMOTIC DEATH RATE							Deaths of Children under one year of age to 1000 Births	
		Birth Rate	Recorded Death Rate	Corrected Death Rate	Small Pox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Fever	Diarrhoea		Total
33 TOWN ..	10,591,530	31'3	20'7	22'3	0'01	0'53	0'18	0'35	0'37	0'20	1'20	2'8	182
32 PROVINCIAL TOWNS ..	6,199,184	31'9	21'2	22'4	0'01	0'45	0'14	0'22	0'38	0'27	1'26	2'8	193
CROYDON ..	114,923	25'3	14'4	15'0	..	0'17	0'04	0'10	0'24	0'12	0'56	1'3	134
PORTSMOUTH ..	174,751	27'9	17'8	18'2	..	0'22	0'04	0'11	0'36	0'20	1'20	2'1	175
DERBY ..	100,272	29'1	16'7	18'4	0'08	0'07	0'08	0'06	0'21	0'18	1'27	2'0	161
NORWICH ..	107,127	31'8	19'3	18'5	..	0'25	0'09	0'18	0'50	0'24	1'46	2'7	190
LEICESTER ..	193,839	30'8	17'2	18'7	..	0'17	0'08	0'18	0'44	0'20	1'91	3'0	203
BRISTOL ..	228,139	28'9	18'1	18'9	..	0'04	0'07	0'15	0'20	0'09	0'75	1'3	143
BRIGHTON ..	119,604	25'6	18'9	19'1	..	0'22	0'04	0'15	0'35	0'12	0'87	1'8	164
WEST HAM ..	249,473	34'3	17'9	19'3	0'04	0'91	0'18	0'77	0'23	0'26	0'85	3'2	168
PLYMOUTH ..	89,096	28'7	20'1	19'5	..	0'87	0'02	0'11	0'32	0'08	0'52	1'9	178
HUDDESFIELD ..	99,482	21'7	16'9	19'6	..	0'12	0'19	0'15	0'20	0'06	0'48	1'2	158
SWANSEA ..	97,008	33'4	18'3	19'9	..	0'48	0'05	0'12	0'21	0'21	0'61	1'7	178
CARDIFF ..	155,637	34'3	18'2	20'2	..	0'30	0'05	0'36	0'34	0'10	1'28	2'4	179
NOTTINGHAM ..	226,658	29'7	19'0	20'4	..	0'00	0'23	0'04	0'14	0'24	1'58	2'2	190
GATESHEAD ..	95,871	34'6	19'6	21'0	..	0'29	0'15	0'20	0'65	0'16	1'18	2'6	186
LONDON ..	4,392,346	30'5	19'8	21'1	0'01	0'60	0'19	0'53	0'34	0'14	0'80	2'6	166
BIRKENHEAD ..	107,469	30'7	19'5	21'4	..	0'03	0'15	0'42	0'38	0'39	0'98	2'4	174
HALIFAX ..	93,813	23'4	19'3	21'5	..	0'10	0'05	0'15	0'25	0'17	0'58	1'3	115
HULL ..	216,722	34'2	20'8	21'8	..	0'09	0'18	0'17	0'20	0'22	2'46	3'3	205
NEWCASTLE-ON-TYNE ..	207,021	31'2	20'5	22'3	..	0'68	0'11	0'25	0'29	0'23	0'96	2'5	186
BIRMINGHAM ..	496,751	32'4	20'3	22'4	0'02	0'27	0'26	0'37	0'35	0'16	1'24	2'7	183
LEEDS ..	395,346	31'6	20'5	22'7	..	0'34	0'13	0'16	0'28	0'21	1'57	2'7	191
BRADFORD ..	226,381	26'1	19'9	22'8	..	0'08	0'11	0'09	0'47	0'18	1'58	2'5	203
SHEFFIELD ..	342,768	34'9	20'5	22'8	..	0'55	0'10	0'15	0'21	0'28	1'88	3'2	197
SUNDERLAND ..	137,705	35'1	21'8	22'9	..	0'07	0'08	0'06	0'46	0'06	1'87	3'5	189
OLDHAM ..	141,979	27'5	22'0	25'2	0'16	0'70	0'11	0'18	0'38	0'18	1'08	2'8	190
WOLVERHAMPTON ..	85,780	35'4	24'4	25'5	..	0'48	0'39	0'08	0'62	0'20	1'56	4'2	218
PRESTON ..	112,638	33'4	23'9	26'3	0'01	0'42	0'04	0'07	0'45	0'20	2'58	3'8	248
BURNLEY ..	99,591	32'1	23'4	26'9	..	0'25	0'22	0'43	0'54	0'30	2'14	3'9	242
BOLTON ..	119,337	32'9	24'0	27'2	0'01	1'04	0'19	0'13	0'56	0'45	0'07	4'5	212
BLACKBURN ..	127,615	30'6	24'3	27'3	..	2'54	0'06	0'07	0'59	0'23	2'14	5'6	236
MANCHESTER ..	524,865	33'7	25'2	28'5	0'00	0'97	0'32	0'21	0'48	1'19	1'56	3'7	203
SALFORD ..	208,253	35'9	25'6	28'8	..	1'03	0'47	0'30	0'64	0'42	0'10	5'0	231
LIVERPOOL ..	503,967	36'9	28'8	31'9	0'03	0'71	0'29	0'24	0'74	0'37	1'63	4'0	210

[illegible]

TABLE IV.—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	Portsmouth	Portsea	Kingsdon		Landport	Southsea
LOCAL DISEASES—continued																		
Convulsions	62	12	...	...	...	...	...	...	...	...	...	...	1	5	27	38	3	74
Laryngismus Stridulus (Spasm of Glottis)	6	3	...	...	...	...	...	...	...	...	...	...	...	2	4	3	...	9
Diseases Spinal Cord, Paraplegia	2	...	...	...	...	4	4	...	...	3	3	...	...	1	8	4	3	16
Paralysis, Agitans	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1	...	2
Other Diseases of Nervous System	...	1	...	...	...	...	...	...	1	...	...	...	...	...	1	2	...	3
Order 2.—Diseases of Organs of Special Sense, (e.g. of Ear, Eye, Nose)																		
Order 3.—Diseases of Circulatory System—																		
Pericarditis	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	2
Acute Endocarditis	...	...	1	1	...	...	...	...	...	...	...	...	...	...	1	...	1	2
Valvular Disease of Heart	...	...	1	1	3	5	10	9	5	6	4	...	...	3	22	18	1	44
Other Diseases of Heart	6	2	4	8	15	24	39	28	33	54	42	4	6	18	104	100	31	259
Aneurism	...	...	...	1	2	...	1	...	...	...	...	...	...	1	3	...	...	4
Other Diseases of Blood Vessels	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	1
Order 4.—Diseases of Respiratory System—																		
Laryngitis	3	2	1	...	...	1	...	...	...	...	...	...	...	...	4	3	...	7
Croup	1	1	2	...	...	...	...	...	...	...	...	...	...	...	2	2	...	4
Emphysema, Asthma	...	...	...	...	...	1	5	2	1	3	3	...	...	1	7	5	2	15
Bronchitis	92	52	7	5	4	10	21	9	29	64	51	18	9	25	151	155	22	362
Pneumonia	13	20	5	3	7	11	8	9	3	6	3	1	3	5	40	35	6	89
Pleurisy	...	...	...	...	...	...	1	...	1	...	...	1	...	...	...	2	1	3
Other Diseases of Respiratory System	21	21	...	2	3	1	3	1	...	4	4	3	1	2	34	21	5	63
Order 5.—Diseases of Digestive System																		
Dentition	19	13	...	...	...	...	...	...	...	...	...	...	3	1	14	12	2	32
Sore Throat, Quinsy	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	2
Diseases of Stomach	25	2	...	2	1	3	4	1	1	3	1	...	3	4	18	13	5	43

TABLE IV.—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	Portsmouth	Portsea		Kingston	Landport	Southsea
Class VII. DEATHS FROM VIOLENCE—continued	11	2	..	..	1	1	1	..	..	..	..	..	..	2	7	5	1	15
	1	3	..	1	1	3	2	3	1	3	2	..	1	1	11	7	..	20
	1	..	..	..	..	..	..	..	..	1	..	..	1
	2	..	..	..	..	..	..	..	1	1	1	..	3
	1	..	..	..	..	..	1	..	..	..	..	..	1	..	1
	1	..	3	1	..	..	1	..	..	..	1	..	4	1	6
	1	4	..	2	1	1	..	..	1	..	4	3	..	8
	1	..	..	1	1	..	..	..	..	2	..	..	2

Class VIII. DEATHS FROM ILL-DEFINED AND NOT SPECIFIED CAUSES—	112	16	..	..	..	2	1	1	1	..	..	..	..	..	..	4	..	4
	1	..	1	..	..	..	..	1	..	3	9	52	64	3	131
	..	1	..	..	..	..	..	..	..	3	6	1	..	..	4	6	..	10
	1	1	..	1	..	..	..	..	..	..	2	1	1	4
	1	1	..	..	1	..	..	..	..	..	..	1	1	..	2
	1	..	..	1
	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..

Summary of Table IV.

CLASS	DISEASES.	NUMBER OF DEATHS.
I.	ZYMOTIC DISEASES—	
	1. Miasmatic Diseases	258
	2. Diarrhoeal Diseases	238
	3. Malarial Diseases	—
	4. Zoogenous Diseases	—
	5. Venereal Diseases	17
	6. Septic Diseases	13
II.	PARASITIC DISEASES	2
III.	DIETIC DISEASES	12
IV.	CONSTITUTIONAL DISEASES	519
V.	DEVELOPMENTAL DISEASES	367
VI.	LOCAL DISEASES—	
	1. Diseases of the Nervous System	310
	2. „ Organs of Special Sense	3
	3. „ Circulatory System	312
	4. „ Respiratory System	543
	5. „ Digestive System	189
	6. „ Lymphatic System	1
	7. „ Gland-like Organs of Uncertain Use	2
	8. „ Urinary System	83
	9. „ Reproductive System—	
	(a) Organs of Generation	—
	(b) Parturition	6
	10. „ Bones and Joints	7
	11. „ Integumentary System	3
VII.	VIOLENCE—	
	1. Accident or Negligence	71
	2. Homicide	1
	3. Suicide	21
VIII.	ILL-DEFINED AND NOT SPECIFIED CAUSES	152

TABLE V.

Deaths Registered at several groups of Ages from different Classes of Diseases during the Quarter ending March 30th, 1895.

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	Portsmouth	Portsea	Kingston	Landport	Southsea	
Class I.																		
ZYMOTIC DISEASES—																		
<i>Order 1—Miasmatic Diseases</i>																		
Measles ..	8	24	3	1	..	..	..	..	..	..	..	..	1	13	11	9	2	36
Scarlet Fever ..	..	1	2	..	..	..	..	..	..	..	..	..	..	..	2	1	..	3
Whooping Cough ..	5	5	..	..	..	..	..	..	..	..	..	..	..	..	3	7	..	10
Diphtheria ..	..	3	3	..	..	..	..	..	..	..	..	..	..	1	4	..	1	6
Continued Fever ..	..	..	1	..	..	1	..	..	..	..	..	..	..	1	..	1	..	2
Typhoid Fever ..	..	..	1	1	1	..	..	..	..	1	..	..	..	..	1	1	2	4
Other Miasmatic Diseases ..	4	2	1	4	3	1	11	8	1	18	11	3	1	9	24	26	7	67
<i>Order 2—Diarrhoeal Diseases</i>																		
Diarrhoea, Dysentery ..	2	1	1	..	..	2	..	..	1	..	..	..	..	..	3	4	..	7
<i>Order 4—Venereal Diseases</i>																		
Syphilis ..	2	..	..	..	1	1	..	..	..	..	..	..	..	..	3	1	..	4
Gonorrhoea, Stricture of Urethra ..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	1	1	..	2
<i>Order 5—Septic Diseases</i>																		
Erysipelas ..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	1	1	..	2
Pyæmia, Septicæmia ..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1
II.—PARASITIC DISEASES	2	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	2
III.—DIETIC DISEASES	..	..	..	..	..	2	2	..	..	..	..	..	..	..	3	1	..	4
IV.—CONSTITUTIONAL DISEASES	9	18	6	17	27	21	17	8	4	8	3	..	4	13	62	51	8	138
V.—DEVELOPMENTAL DISEASES	43	..	..	..	..	..	..	1	2	21	49	18	3	4	75	42	10	134
VI.—LOCAL DISEASES	88	51	11	14	19	38	46	36	44	94	75	23	12	30	228	229	40	539
VII.—DEATHS FROM VIOLENCE	5	6	2	1	1	4	..	1	1	2	1	..	..	3	15	5	1	24
VIII.—NOT SPECIFIED OR ILL-DEFINED	34	5	..	..	1	..	..	..	1	1	4	..	1	4	16	24	1	46
TOTALS	202	116	32	38	53	71	76	54	54	145	146	44	24	78	452	405	72	1031

TABLE VI.

Deaths Registered at several groups of Ages from different Classes of Diseases during the Quarter ending June 29th, 1895.

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	Portsmouth	Portsea	Kingston	Landport		Southsea
Class I.—ZYMOTIC DISEASES— I. Order 1.— <i>Miasmatic Diseases</i> Measles .. Whooping Cough .. Diphtheria .. Continued Fever .. Typhoid Fever .. Other Miasmatic Diseases .. Order 2.— <i>Diarrhoeal Diseases</i> Diarrhoea, Dysentery .. Order 4.— <i>Veneral Diseases</i> Syphilis .. Gonorrhoea, Stricture of Urethra .. Order 5.— <i>Septic Diseases</i> Pyæmia, Septicæmia .. Puerperal Fever .. II.—PARASITIC DISEASES III.—DIETIC DISEASES IV.—CONSTITUTIONAL DISEASES V.—DEVELOPMENTAL DISEASES VI.—LOCAL DISEASES VII.—DEATHS FROM VIOLENCE VIII.—NOT SPECIFIED OR ILL-DEFINED .. TOTALS 10 1 1 2 2 1 ..																

TABLE VII.

Deaths Registered at several groups of Ages from different Classes of Diseases during the Quarter ending September 28th, 1895.

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	Portsmouth	Portsea	Kingsston		Landport	Southsea
Classes I. ZYMOTIC DISEASES <i>Order 1.—Miasmatic Diseases</i> Measles .. Scarlet Fever .. Whooping Cough .. Diphtheria .. Typhoid Fever .. Other Miasmatic Diseases	148	17	2	..	2	1	..	..	1	2	1	4	13	82	71	4	174
	2	..	..	..	1	..	..	..	..	..	..	..	1	1	1	..	3
	1	..	..	..	..	..	..	1	..	..	1	
	1	..	..	..	..	..	..	..	..	..	..	..	..	..
	
	2	4	1	..	..	..	..	..	..	..	..	..	5	2	..	
	1	..	..
	
	

Classes II. III. IV. V. VI. VII. VIII.	324	57	25	35	40	44	62	32	21	65	56	7	21	59	349	299	40	768

TABLE VIII.

Deaths Registered at several Ages from different classes of Diseases during the Quarter ending December 28th, 1895.

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	Portsmouth	Portsea	Kingston		Landport	Southsea
Class I ZYMOTIC DISEASES—																		
Order 1— <i>Miasmatic Diseases</i>																		
Scarlet Fever	..	2	..	..	1	..	..	..	..	..	..	..	..	..	2	1	..	3
Whooping Cough	7	7	..	..	..	..	..	..	..	..	..	..	..	..	12	1	1	14
Diphtheria	..	3	3	..	..	..	..	..	..	..	..	..	..	1	4	1	..	6
Enteric or Typhoid Fever	1	..	2	4	3	1	1	..	..	..	..	..	..	2	8	2	..	12
Influenza	..	..	..	..	1	1	1	1	..	..	..	..	..	..	4	..	..	4
Order 2— <i>Diarrheal Diseases</i>																		
Diarrhoea, Dysentery	36	5	..	..	1	..	1	2	2	1	1	1	1	4	27	16	2	50
Order 4— <i>Venereal Diseases</i>																		
Syphilis	..	..	..	..	..	1	1	..	..	..	..	..	..	..	2	..	..	2
Order 5— <i>Septic Diseases</i>																		
Erysipelas	2	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	2
Pyæmia, Septicæmia	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	1
Puerperal Fever	..	..	..	..	2	1	..	..	..	..	..	..	..	..	..	3	..	3
II.—PARASITIC DISEASES	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
III.—DIETIC DISEASES	..	..	..	..	..	..	2	..	..	..	..	..	..	..	2	..	..	2
IV.—CONSTITUTIONAL DISEASES	17	6	4	12	24	18	5	4	14	2	3	..	3	8	60	26	12	109
V.—DEVELOPMENTAL DISEASES	32	..	..	..	..	..	..	..	2	15	32	10	1	3	50	34	3	91
VI.—LOCAL DISEASES..	72	41	9	12	18	24	27	28	27	43	34	6	6	25	165	118	27	341
VII.—DEATHS FROM VIOLENCE	2	3	..	2	3	3	2	..	1	2	1	..	2	2	9	5	1	19
VIII.—NOT SPECIFIED OR ILL-DEFINED	28	5	..	..	..	..	1	..	1	..	2	1	1	..	21	13	3	38
TOTALS	197	72	18	30	53	49	42	35	47	63	73	18	14	46	368	220	49	697

TABLE IX.

Tables showing the Numbers and Death Rates per 1000 of Population from the Seven Principal Zymotic Diseases, from Lung Diseases (excluding Phthisis), from Phthisis, and from all causes, during each Quarter of the Year, 1895, and for the whole Year 1895.

	The Seven Principal Zymotic Diseases		Lung Diseases (excluding Phthisis)		Phthisis.		From all Causes.	
	Num-ber	Rate per 1000	Num-ber	Rate per 1000	Num-ber	Rate per 1000	Num-ber	Rate per 1000
Quarter ending March 30	68	1.55	252	5.76	84	1.92	1031	23.60
Quarter ending June 29	45	1.03	111	2.54	79	1.81	633	14.48
Quarter ending Sept. 28	206	4.71	60	1.37	61	1.39	768	17.58
Quarter ending Dec. 28	84	1.92	109	2.49	56	1.28	697	15.95
THE YEAR 1895	403	2.30	532	3.04	280	1.60	3129	17.90

TABLE X.

Shewing the Death Rates per 10,000 persons living, from the Seven Zymotic Diseases for each of the three decennial periods: 1851-1860, 1861-1870, and 1871-1880, and for the three Quinquennial periods: 1881-1885, 1886-1890, and 1891-1895.

	1851 to 1860	1861 to 1870	1871 to 1880	1881 to 1885	1886 to 1890	1891 to 1895
Deaths from all Causes ..	228	211·9	198·8	194·9	186·5	177·57
Zymotic Diseases ..	49	43·6	37·2	29·40	25·69	23·71
Small Pox ..	4·6	2·4	5·0	0·00	0·07	0·04
Measles ..	4·1	4·0	4·0	5·20	3·64	6·68
Scarlet Fever ..	8·8	8·3	5·5	1·46	1·20	0·95
Diphtheria ..	0·6	1·5	1·0	6·38	2·90	1·55
Whooping Cough ..	4·8	3·6	4·1	3·18	4·26	3·12
Fever ..	13·8	8·8	7·4	6·02	4·06	2·33
Diarrhœa and Cholera ..	13·1 —	13·1 0·9	10·1 0·2	7·14 —	9·58 —	8·91 —
Consumption ..	28·1	25·5	21·9	21·10	19·35	15·45

TABLE XI.

Showing the number of Deaths from all ages from certain groups of diseases, and proportions of deaths of 1000 of Population and to 1000 deaths from all causes.

Infants under one year of age from other groups of diseases, and proportions to 1000 Births, and to 1000 Deaths from all causes under one year.

DIVISION I.

Diseases	Total Deaths	Deaths per 1000 of Population at all ages	Proportion of Deaths to 1000 Deaths
1—Principal Zymotic Diseases	403	2.30	129
2—Pulmonary Diseases (excluding Consumption)	543	3.10	174
3—Principal Tubercular Diseases ..	334	1.91	167

DIVISION II.

Infants under 1 year	Total Deaths	Deaths per 1000 Births	Deaths per 1000 of Total Deaths under 1 year
4—Wasting Diseases ..	225	40.7	263
5—Convulsive Diseases ..	119	24.4	139

NOTES.

- (1) Includes Small Pox, Measles, Scarlet Fever, Diphtheria, Whooping Cough, Typhoid or Enteric Fever, Continued Fever, and Diarrhoea.
- (3) Includes Phthisis (or Consumption), Scrofula, Tuberculosis, Rickets, and Tabes Mesenterica.
- (4) Includes Marasmus, Atrophy, Want of Breast Milk, and Premature Birth.
- (5) Includes Hydrocephalus, Infantile Meningitis, Convulsions and Teething.

TABLE XII.

Showing the number of Deaths in the Years 1861 to 1894 from the Seven principal Zymotic Diseases, and the Number in 1895.

DISEASES	1861	1862	1863	1864	1865	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	Annual Average of 10 years 1885-94	1895	
Small Pox	..	1	..	1228	3	1	..	..	1	1	39	514	45	2	..	1	..	..	..	..	..	..	1	..	..	1	3	..	2	..	..	..	..	4	10	..	
Measles	..	3	42	80	6	14	16	82	46	57	39	42	52	16	54	109	12	36	10	42	7	156	10	164	7	197	8	50	8	4	223	38	120	139	79.2	39	
Scarlet Fever	..	5	226	134	17	20	34	15	107	295	119	30	5	12	36	47	457	36	16	11	9	25	40	16	9	5	18	26	12	11	19	9	18	32	14	16.4	7
Diphtheria	..	9	20	24	17	7	26	4	18	18	13	10	21	15	19	18	11	5	1	4	20	205	106	20	41	42	65	47	17	33	47	23	26	29	34	36.3	18
Whooping Cough	..	11	36	16	48	50	46	23	57	26	46	66	17	19	104	8	42	59	92	9	48	66	36	54	9	44	102	41	26	92	39	38	87	36	41	54.6	64
Fever	..	111	128	57	72	74	85	74	119	105	91	72	112	97	101	103	71	87	96	62	70	60	107	93	58	93	124	53	27	32	50	33	42	54	29	61.5	37
Diarrhoea	..	152	71	68	118	122	119	140	179	100	121	107	113	106	149	141	131	153	170	73	192	73	111	80	116	123	191	151	98	122	105	73	99	247	93	130.2	238
Totals	..	292	523	391	498	317	330	338	526	602	430	366	834	310	470	371	822	322	411	169	381	436	556	274	397	314	698	329	230	300	265	399	310	518	354	371.6	403

TABLE XIII.

Table showing the Death Rates per 1000 Inhabitants from the chief Zymotic Diseases, Consumption and Diseases of the Lungs, in the Sub-Districts, and in the whole Borough. Deaths from Zymotic Diseases, occurring in Public Institutions are entered in the Districts from which the Patients who died were removed. Deaths from the other Diseases occurring in Public Institutions, are distributed to the various Sub-Districts in accordance with the Population for the Year 1895 : and also the means of the 10 Years 1885-1894 for the whole Borough.

DISEASES.	Portsmouth.	Portsea	Kingston	Landport.	South-sea.	Whole Boro.	Means of 10 years
Small Pox	.. ..	..	..	..	..	..	0'00
Measles	.. 0'14	0'86	0'18	0'14	0'19	0'22	0'52
Scarlet Fever	.. ..	..	0'06	0'04	..	0'04	0'10
Diphtheria	.. ..	0'13	0'17	0'03	0'19	0'10	0'21
Whooping Cough	.. ..	0'06	0'44	0'42	0'25	0'36	0'36
Fever	.. 0'14	0'26	0'26	0'18	0'13	0'21	0'30
Diarrhœa	.. 0'87	1'12	1'76	1'30	0'38	1'36	0'87
Principal Zymotic Diseases	1'16	2'44	2'87	2'12	1'14	2'30	2'36
Consumption	.. 1'42	1'66	1'77	1'46	1'49	1'60	1'81
Other Tubercular Diseases..	0'60	0'28	0'35	0'28	0'08	0'31	0'62
Lung Diseases	.. 1'80	2'04	3'52	3'08	2'30	3'04	3'62
FROM ALL CAUSES	.. 12'02	15'09	18'68	18'80	15'86	17'90	18'86

BIRTHS.—The number of births reported in 1895 was 4,868, only one in excess of those reported in the preceding year. The birth-rate was 27·84 (see Table II), which is slightly higher than that of the previous year.

The illegitimate births numbered 157, which is equal to 3·2 per cent. of the total number registered. The mean percentage for the past ten years is 3·2.

The Births were reported in the four quarters as follows:—

				Legitimate		Illegitimate	
				M.	F.	M.	F.
First quarter ending	March	30th	—	640	649	—	17 25
Second	„	June 29th	—	541	570	—	12 28
Third	„	September 28th	—	596	588	—	21 18
Fourth	„	December 28th	—	556	571	—	19 17
				—	—	—	—
				2333	2378	—	69 88
				—		—	
				4711		—	157

And in the various sub-districts thus:—

Portsmouth	—	129	equal to a birth-rate of	14·66	per 1000.
Portsea	—	336	„ „ „ „	22·21	„ „
Kingston	—	2146	„ „ „ „	32·61	„ „
Landport	—	2035	„ „ „ „	28·56	„ „
Southsea	—	222	„ „ „ „	14·14	„ „

Portsea Island Union is situated in Kingston sub-district, in it there occurred 45 births.

MARRIAGES.—Fourteen hundred and thirty-two marriages took place during 1895, which thus numbered thirty less than in the previous year. The marriage-rate was 16·38.

The marriages occurred in the four quarters thus:—

First quarter	—	256
Second „	—	384
Third „	—	335
Fourth „	—	457

DEATHS.—The deaths registered numbered 3129, more by 536 than in the previous year. The general death-rate has declined continuously in Portsmouth during the last forty-five years. In the decade 1851-1860 the death-rate was 22·8, in the next decade 1861-1870 it was 21·2, in the next decade 1871-1880 it was 19·9, in the next, 1881-1890 it was 18·9, and during the five years 1891-1895 it was 17·76.

I would here beg to call attention to Table X on page 23, which shows the steady and continuous fall in the general death-rate of Portsmouth from the decade 1851-1860 to the last quinquennial period terminating last year, with the exception of measles, which disease will be mentioned separately. The loss of lives has diminished in every period, so that whereas in 1851-1860 228 persons died in each year, in every 10,000 persons living in 1891-1895, only 177 died, which, in this town of 176,000 persons, means that 897 fewer deaths take place now than would have occurred under the conditions which existed in the former period. It is since that time that the great expansion of the town has taken place. The inhabitants for the most part now live without the limits of the old fortifications which are now for the greater part demolished; the overcrowding of population upon area has been continually getting less owing to the expansion of the town. It is also subsequent to the former period of 1851-1860 that all the great sanitary works of the borough have been undertaken. Cesspits have given way to a system of sewerage, by which six to eight million gallons of sewage are daily cast into the sea at a safe distance from the town; and drinking water formerly obtained from wells in close proximity to the before mentioned cesspools is now supplied from springs from the chalk situated at Bedhampton, which daily yield about 20 millions of gallons of water, a quantity far in excess of the present requirements of the town. These springs are the property of a private company, but it is to be hoped that they will soon be bought by the Corporation at a reasonable price. Scavenging was almost unknown at the earlier period, but now it is periodically performed throughout the town, removing filth which must

ever be a source of disease. The improvement of the housing accommodation has also been most marked. Hovels which were formerly thought good enough for men, women and children are now condemned as unfit for human habitation, and in cases of lesser evils are dealt with under the nuisance clauses of the Public Health Act. Rents are cheap and at the same time the house accommodation is better. Beyond these special causes, which are under the control of the Sanitary Authority, there are the greater outside causes of the cheapening of all the prime necessities of life in food and in clothing and the improvement in the wage earning power of the working classes. With regard to the special diseases mentioned in Table X, and it contains all those common ones which are generally considered to be influenced by sanitation, it will be remarked that they have also decreased. It is not possible to discuss each one fully, but it is worthy of note the decrease of small-pox side by side with the increase of measles, this disease to which it is probably nearest allied, after chicken pox. This decrease must be largely attributed to vaccination. The decrease of scarlet fever and diphtheria is chiefly due to the improved sanitation and the isolation of cases in the Infectious Diseases Hospital. The astonishing reduction of the death-rate from fever from 13·8 per 10,000 to 2·3, only one-sixth of its former number, is a greater proof of the improvement of the sanitary condition of the town, giving rise to the hope that the time is not far distant when Portsmouth will not be reproached for having a fever death-rate above the mean of the great towns of England, and that its position in this respect will equal that of its general death-rate, viz.—17·90.

The rates for the four quarters of 1894 were as follows :

First quarter	—	23·60	per 1000.
Second „	—	14·48	„ „
Third „	—	17·58	„ „
Fourth „	—	15·95	„ „

The rate for the first quarter was raised by 1·53 owing to 67 deaths from Influenza and 5·31 owing to 252 deaths from diseases of the respiratory system.

In Table IX will be found in more detail the death-rates for the four quarters. The severe weather which prevailed in the first quarter of 1895 will be remembered by everybody; the cold shows its influence by a great increase in the number of deaths from diseases of the lungs (excluding phthisis) which reached the rate of 5.76 per 1000, and, together with the diarrhœa, which accompanied the unusual heat of the autumn, is responsible for the increase of the total death rate over that of the year 1894.

In Table III a comparison is shewn between the thirty-three great towns of England. The "corrected death-rate," given in the fifth column, is obtained by means of factors prepared by the Registrar-General, by using which the differences of age and sex in the populations are rectified, and the results can be fairly compared. This correction having been made, Portsmouth assumes the enviable position of second of the great towns of England. The zymotic rate is higher than the mean of the last ten years in Portsmouth mainly due to the diarrhœa above referred to, which also accounts for the increase of deaths of children under one year of age.

SMALL-POX.—It is my pleasing duty to report that no case of this disease was reported during the year. The vaccination officer has kindly given me the information on Table XIV, by which it is seen he is vigilant in his duties.

SCARLET FEVER.—This disease still further declined during 1895. The cases notified numbered 311, whilst in the previous year they amounted to 458, whilst the deaths were seven over half of those in 1894. This disease maintained its benignant type, the fatal cases forming only 2.25 of the whole. The number of cases admitted to the Infectious Diseases Hospital was 177, of which two were fatal, a percentage of 1.13. Landport suffered rather more severely than Kingston; this occurred also last year, although Kingston as usual suffered much more from the other zymotic diseases.

TABLE XIV.

VACCINATION. Return for the Period, January—June, 1895.

DISTRICTS	No. of Births returned in Birth List Sheets so registered from 1st Jan. to 30th June, 1895	No. of those Births duly entered by 31st Jan., 1896 in columns 10, 11, and 13 of the Vaccination Register ("Birth List Sheets"), viz.—				No. of these Births which on the 31st Jan., 1896, remained un-entered in the Vaccination Register on account of				No. of these Births remaining
		10 Successfully vaccinated	11		13 Dead Unvaccinated	Postpone-ment by Med. Cert.	Removed to Districts the Vacc. Officer of which has been apprized	Removed to Places unknown, &c.		
			Insuspectable of Vaccination	Had Small Pox						
Kingston ..	1092	931	6	—	107	18	5	22	3	
Portsea ..	160	136	1	—	19	2	1	—	1	
Portsmouth ..	137	114	2	—	14	1	2	3	1	
Landport ..	1071	879	7	—	122	30	2	24	7	
Totals ..	2460	2060	16	—	262	51	10	49	12	

VACCINATION OF CHILDREN whose Births were Registered in this District from Jan. 1st to Dec. 31st, 1894, inclusive

Kingston ..	2098	1829	10	—	210	22	3	23	1
Portsea ..	324	280	5	—	26	6	—	6	1
Portsmouth ..	268	233	—	—	21	4	1	9	—
Landport ..	2039	1805	5	—	155	14	14	44	2
Totals ..	4729	4147	20	—	412	46	18	82	4

In 103 cases, 32·1 per cent., some sanitary defect was found in the premises upon which scarlet fever was reported to exist.

By Table XXII it will be seen that the cases were distributed almost equally throughout the year.

DIPHTHERIA, which is becoming more and more prevalent in the great towns of England is decreasing both in numbers and severity in Portsmouth. During 1895, 124 cases were reported ; from these resulted 18 deaths, a mortality of 14·51 per cent., the mean number for the eleven previous years being 166 per annum. Forty-six cases were admitted to the Infectious Diseases Hospital. Of these, five died, a mortality of 10·87 per cent.

As in previous years, this disease was more prevalent in Kingston than in the other districts of the borough.

In 62 cases, or 48·8 per cent., some sanitary defect was found upon the premises, upon which diphtheria was reported to exist.

MEASLES.—The epidemic of measles which commenced in 1894 continued in the first few weeks of 1895 and resulted in 39 deaths. Very few of the cases of this disease are reported to the authority, and for most of those we have to thank the officers of the School Board. As in previous reports, I am compelled to animadvert upon the carelessness and neglect with which this disease is treated by the public at large. As it has been in the past so it is now, “only a case of measles” is said when the disease appears in a family or school, not remembering the fact that measles has caused more deaths in Portsmouth during the last ten years than small-pox, scarlet fever and diphtheria together, yet either of these diseases is looked upon with much more dread than measles.

As an earlier table in the report shows, measles is the only one of the zymotic diseases of which the mortality is not being reduced. The cause of this is mainly the apathy by

which the infectivity of this disease is considered. Measles is undoubtedly very infectious at its very commencement, but so is small-pox, but whereas the latter disease is carefully isolated, no attempt is made to isolate measles, but, on the other hand, children are not infrequently wilfully exposed to the infection in order that all the household may have the disease together and "get it over." Until the public realise the serious nature of measles amongst the causes of deaths and have some due appreciation of the gravity of this disease, which has killed 794 children in Portsmouth during the last ten years, it is to be expected that many children's lives will be sacrificed by ignorance and apathy.

FEVERS.—Typhus Fever has not appeared during the year 1895, nor has any case existed in the Borough during the time I have had the honour of holding the position of Medical Officer of Health, now 10 years. Enteric Fever was slightly more prevalent than in the preceding year but considerably below the mean for the 12 years since notification came into force; 258 cases were reported, resulting in 33 deaths (12·7 per cent.) of these 83 were admitted to the Infectious Diseases Hospital and four of them (or 4·82 per cent.) died. As usual, this disease was more prevalent in Kingston than in Landport, 127 cases were reported in the former district and 106 in the latter with a smaller population. Sanitary defects were found in 153 instances or 47·1 per cent. of the premises on which Enteric or Typhoid Fever was reported to exist.

WHOOPING COUGH.—This disease was the cause of 64 deaths in 1895, being more fatal than any of the Zymotics except Diarrhoea; yet this disease like Measles is considered to be of a trifling nature and treated with little concern, hence we find that little improvement has occurred in it during the last fifty years. It is thought to be a disease which children must have sooner or later and therefore the sooner the better; of course there is no reason why every child should have Whooping Cough, but this erroneous idea causes many children to

lose their lives every year. Sanitary defects were found in 18 instances or 31·6 per cent. of the houses in which Whooping Cough was known to exist.

DIARRHŒA.—The high temperature of the autumn months is a grave increase in the number of deaths from Diarrhœa, which amounted to no less than 238; this number has only been exceeded once, which was in the excessively hot year of 1893. The mean number of deaths during the previous ten years is 132. Kingston, as in the other Zymotics, is the most severely attacked district, the fatal attacks being at the rate of 1·76 per 1000; in Landport they were at the rate of 1·30 per 1000; in Portsea 1·12 per 1000; in Portsmouth 0·09 per 1000; and in Southsea 0·38 per 1000. The greater proportional number of children in Kingston and Landport will account for part of this disparity of numbers, but the want of care taken in feeding, especially in keeping bottles and tubes clean, and in giving improper food are the greatest causes. Only 0·16 per cent. of these cases of Diarrhœa were entirely fed by the breast, and during the last 5 years the fatal cases have been 639 of which 102 were fed from the breast alone. Feeding bottles, though a great convenience, are most difficult to keep clean, especially the India rubber tubes, so that the old fashioned boat-shaped bottle without tube is by far the most preferable shape.

Sanitary defects were found on the premises in 61 instances or 29·2 per cent. Table XX shows the relation of Temperature and fatal cases of Diarrhœa.

INFLUENZA.—This unwelcome visitor which first, in past years, came to Portsmouth in 1890, has not left us for any length of time since. In the spring of 1895 it was again prevalent and caused 93 deaths, but no doubt it was responsible for many of the deaths certified to be due to diseases of the lungs which were so excessive in the first quarter of the year.

PUERPERAL FEVER.—Sixteen cases were reported of which five resulted in death. In every case care was taken to disinfect the nurse or mid-wife in charge of the case. In seven (or 43·7 per cent.) instances sanitary defects were found upon the premises.

TABLE XV.

Table showing the number of cases of **Scarlet Fever** notified, the number of deaths, and the percentage of deaths to cases notified for the years 1884-1895.

Year	Cases Notified	No. of Deaths	Percentage of deaths to notified cases
1884	266	9	3.38
1885	314	5	1.59
1886	343	18	5.24
1887	647	26	4.02
1888	465	12	2.58
1889	728	11	1.51
1890	573	19	3.31
1891	326	9	2.76
1892	1023	18	1.76
1893	1170	32	2.73
1894	458	14	3.06
1895	311	7	2.25
	6624	179	2.72

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 1884-95.

Year	Cases Admitted	No. of Deaths	Percentage of deaths to cases admitted.
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	1.10
1893	503	6	1.19
1894	238	8	3.36
1895	177	2	1.13
	2526	39	1.54

TABLE XVI.

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 1895.

Year	Cases notified	No. of Deaths	Percentage of Deaths to cases notified
1884	174	41	23'44
1885	173	42	24'25
1886	232	65	26'72
1887	260	47	19'08
1888	128	17	13'28
1889	126	33	26'19
1890	212	47	22'69
1891	140	23	16'42
1892	121	26	21'48
1893	140	29	21'48
1894	139	34	24'46
1895	124	18	14'51
	1969	422	21'43

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 1895.

Year	Cases admitted	No. of Deaths	Percentage of Deaths to cases admitted
1884	4	1	25'00
1885	6	..	..
1886	11	1	9'09
1887	27	8	23'70
1888	23	..	..
1889	18	..	..
1890	69	18	26'12
1891	52	4	7'63
1892	27	6	22'22
1893	12	4	33'33
1894	38	8	21'05
1895	46	5	10'87
	333	55	16'51

MEASLES.**TABLE XVII.**

Date	Sub-Districts and Board Schools								
	St. Mary's	Penhale Rd.	Winchester Rd.	St. Jude's	Gunwharf Rd.	Albert Road	Cottage Grove	Other Schools	No School
Jan. 5 ..	1	3	..	..	..	..	..	1	6
„ 12 ..	..	..	1	1	..	9	..	..	11
„ 19 ..	..	..	..	..	1	2	2	8	8
„ 26 ..	..	..	..	..	..	..	..	1	5
Feb. 2 ..	..	..	..	..	..	..	..	2	2
„ 9 ..	..	..	..	..	..	..	..	..	..
„ 16 ..	..	..	..	..	..	..	..	..	..
	1	3	1	1	1	11	2	12	32

TABLE XVIII.

Week ending	SUB-DISTRICTS					Ages					Total
	Portsmouth	Portsea	Kingston	Landport	Southsea	0 to 1	1 to 5	5 to 15	15 to 25	25 to 60	
Jan. 5 ..	..	..	11	..	..	..	8	2	1	..	11
„ 12 ..	..	8	10	2	2	2	17	3	..	..	22
„ 19 ..	1	2	3	15	..	3	15	3	..	..	21
„ 26 ..	..	4	1	1	..	2	3	1	..	..	6
Feb. 2 ..	..	1	..	2	1	..	3	1	..	..	4
„ 9 ..	..	..	..	..	..	..	..	..	..	..	..
„ 16 ..	..	..	..	..	..	..	..	..	..	..	..
	1	15	25	20	3	7	46	10	1		64

TABLE XIX.

Table showing the number of cases of **Typhoid Fever** notified, the number of Deaths, and the percentage of Deaths to cases notified for the years 1884 to 1895.

Year	Cases notified	No. of Deaths	Percentage of Deaths to cases notified
1884	539	58	10.76
1885	762	93	11.48
1886	1249	124	9.90
1887	554	53	9.52
1888	313	27	8.60
1889	317	32	10.01
1890	457	50	10.94
1891	265	33	12.40
1892	330	38	11.51
1893	361	54	14.96
1894	201	25	12.44
1895	258	33	12.74
	5606	610	10.88

Table showing the number of cases of **Typhoid Fever** admitted to the Milton Hospital, the number of Deaths, and the percentage of Deaths to cases of Typhoid Fever admitted for the years 1884 to 1895.

Year	Cases admitted	No. of Deaths	Percentage of Deaths to cases admitted
1884	2	—	—
1885	6	—	—
1886	66	4	6.06
1887	37	1	2.70
1888	35	—	—
1889	48	6	12.50
1890	114	5	4.38
1891	51	4	7.84
1892	81	6	7.41
1893	94	3	3.19
1894	53	3	5.85
1895	83	4	4.82
	670	36	5.37

TABLE XX.

Week ending		Temperature of Air		Temperature by earth Thermometer 1 ft.	Temperature by earth Thermometer 4 ft.	Total Rainfall in inches	Deaths from Diarrhœa
		Mean of Maximum	Mean of Minimum				
1895							
June	8	70·86	51·28	61·64	55·00	..	..
"	15	66·57	50·07	62·93	56·00	0·31	2
"	22	68·13	48·57	62·93	56·71	0·16	..
"	29	71·79	55·50	67·14	57·78	0·24	1
July	6	66·93	54·50	64·43	58·86	0·41	1
"	13	70·86	54·36	66·64	59·29	0·08	5
"	20	68·23	56·43	66·57	60·14	1·45	4
"	27	66·36	58·00	65·00	60·50	1·55	8
August	3	65·10	53·30	64·10	60·50	0·59	11
"	10	65·36	55·14	64·20	60·50	1·33	10
"	17	68·71	56·40	65·64	60·86	0·53	11
"	24	71·57	57·93	66·93	61·14	0·12	17
"	31	67·60	56·40	66·20	61·50	0·27	25
September	7	72·07	55·80	65·50	61·90	0·12	20
"	14	69·40	55·50	64·90	61·70	0·16	18
"	21	67·90	48·60	60·50	61·20	..	27
"	28	76·10	54·90	61·60	60·60	0·53	17
October	5	66·78	51·78	59·50	60·40	1·16	18
"	12	59·14	49·00	55·20	59·20	0·38	12
"	19	57·50	44·50	52·80	57·70	0·01	7
"	26	47·40	36·60	47·07	56·07	1·21	..
November	2	48·60	34·60	43·20	53·60	1·59	2
"	9	57·00	47·00	49·40	52·00	2·21	4
"	16	56·80	47·40	50·14	52·70	1·58	1
"	23	52·50	44·30	49·10	53·30	0·44	..

COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES.—Under the Portsmouth Corporation Act, four of the seven principal Infectious Diseases are reported to the Medical Officer of Health, and there are certain other various diseases also notified. Those that are notified are small pox, scarlet fever, diphtheria and “fever” which includes enteric and “continued” fevers. The Tables XXI. to XXIV. inclusive, deal with these certificates from their commencement in 1884 to the end of 1895; and during the year under consideration 770 cases were certified, a number sufficiently large, but 50 less than in any previous, notwithstanding increase of population. In Table XXIV. will be found the rate per 1000 of deaths for the seven principal zymotic diseases for the last 23 years and a comparative statement of the deaths previous to and during notification, from which it will be seen that those diseases which are notified have decreased enormously, viz.:—from 1.54 per 1000 to 0.66 per 1000, those which are not notified have hardly decreased at all. It is worthy of remark that those diseases which are considered too trivial to notify are those in which there is no decrease; is not this because there is no trouble taken over them? because it is said Measles and Whooping Cough must be had at some time or other and is most likely to happen when the plums are ripe or some such cock-and-bull story.

TABLE XXI.

Cases of Infectious Diseases coming to the knowledge of the Portsmouth Urban Sanitary Authority during the year 1895.

	0-1	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65-75	75-85	85 and over	Totals
SMALL POX												
Portsmouth
Portsea
Kingston
Landport
Southsea
Total
SCARLET FEVER												
Portsmouth	2	4	..	..	1	..	..	..	..	7
Portsea	3	20	2	..	..	..	..	..	..	25
Kingston	..	5	40	51	15	4	4	1	..	..	..	120
Landport	..	2	39	58	20	13	1	..	..	..	..	133
Southsea	..	1	11	16	8	..	2	..	..	..	..	38
Total	..	8	95	149	45	17	6	3	..	..	..	323
DIPHTHERIA												
Portsmouth
Portsea	4	..	3	..	1	..	..	..	..	8
Kingston	..	2	15	29	10	9	5	2	1	..	..	73
Landport	6	9	13	3	2	2	..	..	..	35
Southsea	1	4	4	1	..	..	..	..	..	10
Total	..	2	26	42	30	13	8	4	1	..	..	126
ENTERIC FEVER												
Portsmouth	2	..	..	1	1	..	..	..	4
Portsea	4	3	4	1	..	1	..	..	13
Kingston	..	3	14	53	19	24	8	4	1	1	..	127
Landport	13	48	17	26	2	1	..	1	..	106
Southsea	1	3	1	3	1	..	1	..	10
Total	..	3	27	108	42	55	15	7	1	3	1	262
CONTINUED FEVER												
Portsmouth	1	..	..	..	..	..	1
Portsea	1	2	..	..	1	..	..	..	..	4
Kingston	3	17	6	2	4	2	..	1	..	35
Landport	3	8	7	2	2	2	..	..	..	24
Southsea
Total	7	27	13	5	7	4	..	1	..	64
PUERPERAL FEVER												
Portsmouth
Portsea
Kingston	2	1	4	..	..	..	..	7
Landport	1	4	3	..	..	..	..	8
Southsea
Total	3	5	7	..	..	..	..	15

TABLE XXII.

WEEKLY RETURN of Cases of Infectious Diseases reported in accordance with the Portsmouth Corporation Act, 1883, during the Year, 1895.

Week ending			Small Pox	Scarlet Fever	Diph- theria	Fevers		Puer- peral Fever	Total	
						Enteric	Con- tinued			
1895										
January	5	..	..	2	3	1	..	..	6
"	12	..	..	4	2	2	..	..	8
"	19	..	..	2	2	5	..	1	10
"	26	..	..	3	5	3	..	..	11
February	2	..	..	2	1	..	..	1	4
"	9	..	..	4	4	2	..	..	10
"	16	..	..	6	2	2	2	..	12
"	23	..	..	3	1	3	1	1	9
March	2	..	..	..	3	1	..	..	4
"	9	..	..	..	1	..	..	..	1
"	16	..	..	3	..	2	..	..	5
"	23	..	..	1	4	..	..	..	5
"	30	..	..	3	1	1	1	..	6
April	6	..	..	2	..	4	..	..	6
"	13	..	..	1	2	3	..	..	6
"	20	..	..	3	1	3	..	..	7
"	27	..	..	4	..	4	4	..	12
May	4	..	..	9	1	2	..	1	13
"	11	..	..	8	..	3	1	..	12
"	18	..	..	5	1	5	..	..	11
"	25	..	..	6	3	8	..	..	17
June	1	..	..	2	1	8	..	1	12
"	8	..	..	5	3	2	..	..	10
"	15	..	..	5	..	4	..	..	9
"	22	..	..	3	..	7	1	..	11
"	29	..	..	7	3	9	..	..	19
July	6	..	..	6	1	11	..	1	19
"	13	..	..	9	5	5	..	..	19
"	20	..	..	4	2	6	2	..	14
"	27	..	..	3	5	4	..	..	12
August	3	..	..	4	2	9	5	..	20
"	10	..	..	7	4	3	3	..	17
"	17	..	..	4	2	10	..	..	16
"	24	..	..	11	3	8	6	..	28
"	31	..	..	9	1	7	1	..	18
September	7	..	..	7	2	12	3	1	25
"	14	..	..	5	..	3	..	..	8
"	21	..	..	6	2	16	2	..	26
"	28	..	..	5	2	9	1	..	17
October	5	..	..	12	2	9	4	..	27
"	12	..	..	7	2	9	..	..	18
"	19	..	..	6	2	6	5	..	19
"	26	..	..	9	1	7	1	1	19
November	2	..	..	10	8	8	4	3	33
"	9	..	..	20	2	4	1	2	29
"	16	..	..	11	8	4	1	1	25
"	23	..	..	13	4	6	7	1	31
"	30	..	..	18	4	4	3	..	29
December	7	..	..	10	7	4	..	..	21
"	14	..	..	9	..	2	1	..	12
"	21	..	..	6	2	3	2	..	13
"	28	..	..	7	7	5	..	..	19
Totals			311	124	258	62	15	770

TABLE XXIII.

Shewing the number of Infectious Diseases reported to the Medical Officer of Health under the Portsmouth Corporation Act.

Year	Small Pox	Scarlet Fever	Diphtheria	Fevers		Puerperal Fever	Totals
				Enteric	Continued		
1885	8	314	173	762	—	2	1259
1886	7	343	232	1249	—	14	1845
1887	23	647	260	554	—	11	1495
1888	3	465	128	313	—	11	920
1889	6	728	126	317	—	6	1183
1890	—	573	212	457	125	4	1371
1891	—	350	138	265	52	15	820
1892	—	1023	121	330	76	2	1552
1893	6	1153	135	366	69	25	1754
1894	22	458	139	201	49	9	878
Totals	75	6054	1664	4814	371	99	13077
Means	7.5	605.4	166.4	481.4	37.1	9.9	1307.7
1895	0	311	124	258	62	15	770

THE MILTON HOSPITAL FOR INFECTIOUS DISEASES.—Again I have to report the numbers of cases admitted to this Hospital are fewer than in the preceding year. This is due to the fact that there were fewer cases in this town to treat. The proportion of cases admitted to those reported is still too small, only a little more than half the cases of scarlet fever seek the advantages of isolation in the hospital, but it is hoped that the proportion will be an increasing one.

In the middle of the year the new two-storey building giving accommodation to 26 patients was opened and was found of great advantage, as it enabled the old wards which had been in constant use for years, to be thoroughly cleansed. The addition to the administrative blocks was also taken into use and it contained 10 cubicles for nurses, a nurses' dining hall, new kitchen and scullery, and a committee room. This increased accommodation is found to make the work of administration much more convenient and the nurses have gained much comfort by the possession of a room in which they can take their meals and enjoy a short period of rest after the day's work is done.

During the ten years I have been Medical Officer to the hospital, the usefulness of that institution has increased by leaps and bounds, the greater part of which increase has been due to the unwearied attention and unvarying kindness bestowed upon the patients by the matron and the nurses under her. To Mrs. Antram and the staff I am much indebted for many acts of consideration, and I take this opportunity of publicly expressing my indebtedness to them.

The average daily number of patients was 37·4.

DISINFECTION.—This has been carried out at the Hospital by an antiquated apparatus in which hot air has been the means of disinfection, a method which has been considered inadequate for some years, but during the latter part of 1895 a decision was come to by the Sanitary Committee to replace the old apparatus by one of Thersh's Current Steam Disinfectors. This decision has been ratified by the Sanitary Authority, and shortly the town will have one of the most modern and efficient disinfectors. Articles disinfected last year amounted to 3477.

TABLE XXV.

Cases under treatment at the Milton Hospital during the year 1895.

DISEASES	AGES									Total
	0-1	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65 and over	
Scarlet Fever ..	2	49	104	24	7	2	2	..	..	190
Typhoid Fever	8	45	20	8	4	3	1	..	89
Diphtheria	9	14	20	2	1	1	1	..	48
Measles	7	3	5	3	..	..	..	..	18
German Measles	1	..	..	..	..	..	1
Puerperal Fever	2	..	1	..	..	..	3
Continued Fever	1	3	2	1	..	..	..	..	7
Chicken Pox	1	..	..	1	..	..	..	2
Tonsilitis	1	..	..	..	..	..	1
Pneumonia	2	..	2	..	..	..	..	4
Rheumatism	1	..	..	..	..	1
Syphilis	1	..	..	..	..	..	1
Pleurisy	1	..	..	..	..	..	1
Meningitis	1	..	..	..	..	..	1
Inflammation of Eyes	1	..	..	..	..	..	1
Erythema	2	..	..	..	2
Ovarian Tumour	1	..	..	1
TOTALS ..	2	74	172	79	24	11	7	2	..	371

TABLE XXVI.

Number of Patients admitted to the Hospital for the Years
1883 to 1895.

DISEASES	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895
Small Pox ..	5	1	8	7	20	4	6	1	..	..	6	22	..
Scarlet Fever ..	1	13	16	29	56	120	278	384	180	532	503	238	177
Enteric or Typhoid ..	2	6	66	37	35	48	114	51	81	94	53	83	
Diphtheria ..	..	4	6	11	27	23	18	69	52	27	12	38	46
Measles ..	1	2	1	11	4	8	5	1	22	..	6	22	15
Other Diseases ..	..	..	..	1	3	8	8	7	18	5	5	9	25
Total ..	7	22	37	125	147	194	363	576	322	645	626	382	346

WATER SUPPLY.—As usual I have analysed each month the water supplied by the Borough of Portsmouth Water Company, and have reported the result of these analyses to the Sanitary Committee. I here append a summary of the analytical results, together with the results of a few other analyses.

Date when taken	Where taken from	Grains per gallon			Total Hardness	Parts per Million		Poisonous Metals	Remarks
		Total Solid Residue	Chlorine	Nitrogen as Nitrates		Free Ammonia	Albuminoid Ammonia		
1895									
Jan. 14	Corporation Yard	21.9	1.4	0.035	16.1	0.01	0.02	..	Greyish blue in colour, slight deposit of sand
Feb. 18	" "	20.6	1.3	0.175	15.8	0.00	0.00	.	Light grey in colour, brilliantly clear, no deposit, remarkably free from organic matter
Mar. 18	" "	25.2	1.3	0.157	16.4	0.02	0.03	..	Light grey in colour, slight deposit of sand
Apl. 10	" "	20.3	1.2	0.140	15.9	0.04	0.02	..	Greyish in colour, clear no deposit
May 17	" "	21.0	1.3	0.200	16.1	0.01	0.03	..	Light grey, clear, no deposit
June 6	Well, Hill Lane	79.8	10.6	..	6.2	0.86	0.48	..	Green in colour, slight deposit
" 6	Well, Hyde Park Corner	57.4	6.3	..	9.8	0.52	0.36	..	....
" 17	Corporation Yard	21.7	1.1	0.157	16.3	0.01	0.02	..	Clear, very slight deposit of sand
July 12	" "	21.7	1.4	0.140	16.2	0.02	0.03	..	Clear
" 12	Campbell Road	22.4	1.3	0.157	16.2	0.02	0.02	..	Slight deposit of sand
Aug. 19	Corporation Yard	21.0	1.2	0.750	16.1	0.01	0.01	..	Light grey, clear, no deposit
" 19	Hyde Park Corner	56.7	6.7	..	9.6	0.54	0.42	..	Bluish grey, slightly turbid, unfit for drinking purposes
Sep. 16	Corporation Yard	21.8	1.7	0.157	16.6	0.02	0.01	Absent	Water clear
Oct. 14	" "	20.9	1.3	0.140	16.3	0.00	0.01	Absent	Light green in colour, brilliantly clear
Nov. 18	" "	20.3	1.1	0.175	15.6	0.01	0.02	Absent	Bluish grey in colour, slightly turbid
" 19	Old Well, Milton Lunatic Asylum	24.5	6.2	..	12.4	0.6	0.8	Traces of Iron	Clear, bluish grey in colour, very slight deposit
" 19	New Well, Milton Lunatic Asylum	51.8	11.4	..	18.9	0.8	0.14	Traces of Iron	Slightly cloudy, greenish brown in colour
Dec. 16	Corporation Yard	20.3	1.2	0.156	15.4	0.04	0.01	Absent	Greyish brown, slightly turbid

HOUSES UNFIT FOR HABITATION.—Under the Bye-Law I have certified 35 houses to be unfit for human habitation, and these houses have upon such certificate been declared unfit by the Sanitary Authority. I have also written 45 letters, referring to 89 houses, calling upon the owners of insanitary property to remedy the defects, warning them that unless this is done it will be my duty to certify such property as unfit for human occupation.

PREMISES CONDEMNED IN 1895.

SITUATION OF PREMISES	DATE
5, St. Thomas' Street, Portsmouth	April 16
3, Gardner's Buildings, Portsea	May 20
4, do. do.	"
43, Southampton Row, do.	"
2, College Street, do.	"
1, Hammond's Cottages, Bath Square, Portsmouth ..	June 19
2, do. do.	"
18, East Street, do.	"
1, Trimmer's Court, East Street, do.	"
2, do. do.	"
3, do. do.	"
4, do. do.	"
5, do. do.	"
6, do. do.	"
16, Voller Street, Landport	July 16
26, do. do.	"
33, do. do.	"
44, do. do.	"
50, do. do.	"
52, do. do.	October 15
3, All Saints' View, Landport	"
4, do. do.	"
5, do. do.	"
6, do. do.	"
68, Belgrave Street, Southsea	Nov. 19
37, Southampton Row, Portsea	Dec. 17
39, do. do.	"
41, do. do.	"
12, West Street, Portsmouth	"
2, Redward's Court, Southampton row, Portsea ..	"
3, do. do.	"
1, Pimlico Place, Church Path, Landport	"
2, do. do.	"
3, do. do.	"
4, do. do.	"

PROSECUTIONS.—In all the Prosecutions of the Authority, in which my evidence was wanted, I have been a witness; they were 24 in number, being as follows:—

Initials	Charge	Result
W. H. E.	Impeding Inspector in execution of duty	} Case dismissed
J. S.	Non-compliance with Nuisance Notice	
J. S.	Ditto ..	Ditto
G. A. G.	Ditto ..	Order to abate Nuisance in 7 days and to pay costs 18s.
M. A. G.	Ditto ..	Order to abate Nuisance in 7 days
M. C. & E. C.	Non-compliance with Sec. 114 of the Public Health Act	} Case withdrawn, Nuisance having been abated
W. E. P.	Exposing 21 pieces of unsound meat for sale	
G. A. G.	Non-compliance with Building Bye-Law, No. 30	} Fined 21s. and 14s. 6d. costs
J. S. H.	Non-compliance with Nuisance Notice	
Do.	Ditto ..	Ditto
Do.	Ditto ..	Ditto
Do.	Ditto ..	Order to abate Nuisance in 7 days, fined 15s. including costs
Do.	Ditto ..	Ditto
Do.	Ditto ..	Order to abate nuisance in 7 days
Do.	Ditto ..	Order to abate Nuisance in 7 days, fined 15s. including costs
Do.	Ditto ..	Ditto
L. C.	Ditto ..	Order to abate Nuisance in 7 days, fined £1 including costs
M.	Ditto ..	Order to abate Nuisance in 7 days, fined 17s. 6d. including costs
J. P.	Ditto ..	Ditto
C. H.	Ditto ..	Order to abate Nuisance in 14 days, fined 15s. including costs
E. S. B.	Ditto ..	Case withdrawn, work having been done
J. B.	Ditto ..	Order to abate Nuisance in 14 days, fined 15s. including costs
C. M.	Ditto ..	Case withdrawn, work having been done
R. L.	Depositing 4 pieces of unsound meat which were in preparation for sale	} Fined £2 and £1 : 6s. 6d. costs

SLAUGHTER HOUSES.—There are 192 Slaughter Houses, of which 107 are in actual use, the supervision of such a number, to be efficient, would require an army of inspectors, but no less than 4501 visits were paid to them last year, shewing they were not neglected. It would, however, be a great improvement if an abattoir were built and all these old slaughter houses were done away with: this, apparently, is in the far distance, but preparation for that time in a small manner is being made by granting only annual licenses in all cases of transfer, so that in the distant future when an abattoir is built the compensation will be so much reduced.

COWSHEDS, DAIRIES AND MILK SHOPS.—There were 190 milk shops and dairies, and 50 cowsheds registered in 1895; to them your Inspectors paid 2410 visits, in order to see that the regulations concerning them are duly carried out.

INSPECTION OF WORKSHOPS.—Inspector Benjamin who was appointed to carry out this work has performed his duties zealously, having paid 4457 visits and served 259 notices. Since his appointment a great improvement has been made in the sanitary condition of workshops and factories which will bear fruit in the better health of those working in them, the effects of which will be more far reaching than is at present thought.

One hundred and eighty-two notices were sent to Her Majesty's Inspector of Factories and Workshops informing him of the new occupation of workshops.

REFUSE DESTRUCTOR.—This subject which has been talked of for many years now seems within the realm of practical politics ; it has been considered by the Sanitary Committee frequently and the results of their deliberations will be reported to the Council shortly it is hoped.

THE SYSTEMATIC INSPECTION OF THE DISTRICT has been energetically and efficiently performed by your Inspectors and myself. The report of the Inspector of Nuisances will be found further on, it states that 4595 notices have been served to remove nuisances, these notices being the result of the vigilant Inspection of the district, which is yearly becoming more and more efficient. The improvement of the public health in the borough which has taken place during the last 20 years is due in no slight measure to the capital manner in which the Inspectors of Nuisances have performed their frequently disagreeable duties. In taking leave of Mr. Bell, Chief Inspector of Nuisances, and the other Inspectors of Nuisances, I should like to express to them all my high appreciation of the zeal with which they have done their work and my thanks for many kindnesses received at their hands.

Table of Deaths during the Year 1895, in the Portsmouth Urban Sanitary District, classified according to Diseases, Ages, and Localities.

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	Mortality from all Causes, at Subjoined Ages.							Mortality from subjoined Causes, distinguishing Deaths of Children under Five Years of Age																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
	At all ages	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	Smallpox	Scarlatina	Diphtheria	Membranous Group	Fever					Cholera	Erysipelas	Measles	Whooping Cough	Diarrhoea and Dysentery	Rheumatic Fever	Phthisis	Bronchitis Pneumonia and Pleurisy	Heart Disease	Influenza	Injuries	All other Diseases	Total																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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Portsmouth	71	23	8	1	5	20	14	Under 5 5 upwards

TABLE XXXI.

Table of Population, Births, and of New Cases of Infectious Sickness, coming to the knowledge of the Medical Officer of Health, during the year 1895, in the Urban Sanitary District; classified according to Diseases, Ages and Localities.

Names of Localities adopted for the purpose of these Statistics ; Public Institutions being shown as separate localities	New Cases of Sickness in each Locality, coming to the knowledge of the Medical Officer of Health												Number of such Cases removed from their Homes in the several Localities for Treatment in Isolation Hospital												
	1	2	3	4	5	6	7	8	9	10	11	12	Small Pox	Scarlatina	Diphtheria	Membranous Croup	Fevers				Cholera	Erysipelas	Measles	Other Diseases	
																	Typhus	Enteric or Typhoid	Continued	Relapsing					Puerperal
Portsmouth	..	4	3	..	1	1	..	
Portsea	..	3	4	4	1	1	10	..	4	
Kingston	..	20	4	12	3	2	..	12	3	
Landport	..	46	17	1	..	19	3	34	..	20	4	
	..	68	56	107	32	..	7	2	..	45	15	2	
	..	33	7	1	..	13	3	17	..	17	6	
Southsea	..	100	28	1	..	94	21	..	9	..	..	6	..	54	15	..	..	..	..	..	..	2	1
	..	9	1	..	..	10	..	..	..	..	..	3	..	4	2	..	..	..	..	..	..	..	..
Royal Hospital	..	23	9	..	..	..	..	..	..	..	..	7	..	13	2	..	..	1	..	..	..	..	..
	..	1	1	..	..	..	..	..	..	..	..	5	..	..	..	..	..	1	..	..	..	..	..
Milton Hospital	..	1	1	..	..	1	..	..	..	..	..	4	..	..	..	..	..	..	..	..	..	5	..
	4	..		
Naval and Military Establishments	..	4	..	..	..	..	..	..	..	..	..	1	..	4	..	..	..	..	..	..	..	2	5
	7	..	..	1	..	..	..	..	..	..	..	..
	..	1	1	..	..	1	..	..	..	..	..	2	..	..	1	..	..	..	..	..	..	..	..
TOTALS	174751	97	29	2	..	32	7	..	16	..	1	79	..	46	13	..	..	..	..	..	..	6	..
	4868	1	101	1	..	229	57	..	..	..	..	25	..	129	36	..	..	..	..	..	..	10	11

Report of the Public Analyst.

GENTLEMEN,

During the year 1895 I analysed 257 samples of food and drugs, of which 248 were taken by your Inspectors under my direction, and nine samples submitted by private individuals.

Of the total number of samples 38, or 14·78 per cent., were found adulterated. The percentage of adulterated articles taken by the Inspectors was 13·88, and the percentage of adulterated articles submitted by private individuals was 44·44.

The following is a list of the samples analysed :—

Milk	-	-	-	165
Butter	-	-	-	33
Coffee	-	-	-	18
Bread	-	-	-	3
Pepper	-	-	-	12
Whiskey	-	-	-	11
Rum	-	-	-	1
Gin	-	-	-	6
Drugs	-	-	-	8

Table showing the number of Samples Analysed during the
last Twelve Years.

Year	Total	Milk	Butter	Bread and Flour	Gro- ceries	Wine and Spirits	Drugs	Sun- dries	No. of Sam- ples found adulterated
1884	125	101	..	8	8	6	..	2	18
1885	141	74	18	8	19	14	..	4	16
1886	131	68	24	2	24	11	..	2	17
1887	169	143	5	..	7	8	..	6	35
1888	200	106	42	..	34	9	..	9	17
1889	206	102	11	5	64	22	..	2	35
1890	187	121	25	1	33	7	..	..	16
1891	206	110	11	11	48	25	..	1	40
1892	203	124	24	6	24	18	..	7	30
1893	218	141	9	10	12	14	..	32	31
1894	238	126	28	1	18	20	10	35	27
1895	257	165	33	3	30	18	8	..	38

The following Table shows the Articles which were adulterated, by whom they were obtained, the amount of adulteration, and the amount of fines which were imposed by the Magistrates, viz. :—

Nature of Sample	By whom obtained	Amount of Adulteration	Remarks
Milk	Inspector ..	23 per cent. Cream abstracted ...	No prosecution, taken in course of delivery ; no contract
Do.	Do. ...	2 per cent. Cream abstracted ...	Ditto
Do.	Do. ...	4 per cent. Cream abstracted ...	Ditto
Do.	Do. ...	4 per cent. added Water ...	No prosecution
Do.	Do. ...	5 per cent. added Water ...	Ditto
Do.	Do. ...	7 per cent. added Water ..	Prosecuted, fined £1 & 13s. 6d. costs
Do.	Do. ...	19 per cent. added Water ...	Prosecuted, fined £1 and 8s. costs
Do.	Do. ...	3 per cent. Cream abstracted ...	No prosecution
Do.	Do. ...	30 per cent. Cream abstracted ...	Prosecuted, fined £1 and 9s. costs
Do.	Private person	17 per cent. added Water ...	
Do.	Inspector ...	25 per cent. Cream abstracted and 3 per cent. added Water	Prosecuted, fined 30s. including costs
Do.	Do. ...	6 per cent. Cream abstracted ...	No prosecution
Do.	Do. ...	6 per cent. Cream abstracted .	Ditto
Do.	Private person	8 per cent. added Water ...	
Do.	Inspector ...	15 per cent. Cream abstracted ...	No prosecution
Do.	Do. ...	15 per cent. Cream abstracted and 5 per cent. added Water	Fined £3, including costs
Do.	Do. ...	11 per cent. Cream abstracted ...	Fined £2
Do.	Do. ...	4 per cent. Cream abstracted ...	No prosecution
Cream of Tartar	Do. ...	Trace of Lead ...	Ditto
Do.	Do. ...	Ditto ...	Ditto
Do.	Do. ...	Ditto ...	Ditto
Butter	Do. ...	90 per cent. other than Butter Fat	Fined 10s., including costs
Do.	Do. ...	88 per cent. other than Butter Fat	No prosecution
Do.	Do. ...	53 per cent. other than Butter Fat	Prosecuted ; case dismissed
Milk	Do. ...	21 per cent. Cream abstracted ..	Fined £2, including costs
Do.	Do. ...	11 per cent. added Water and 35 per cent. Cream abstracted	Fined 30s., including costs
Do.	Do. ...	22 per cent. Cream abstracted ...	No prosecution ; sold as Skimmed Milk
Do.	Do. ...	32 per cent. Cream abstracted ...	Fined £1
Butter	Do. ...	53 per cent. other than Butter Fat	Fined 15s.
Milk	Do. ...	16 per cent. Cream abstracted ...	No prosecution ; in course of delivery
Do.	Do. ...	4 per cent. Cream abstracted ...	No prosecution
Do.	Do. ...	24 per cent. Cream abstracted ...	Fined £5 rs., including costs
Whiskey	Do. ...	48 degrees under proof ...	No prosecution ; Card in Bar
Gin	Do. ...	42·2 degrees under proof ...	Ditto
Do.	Do. ...	38·8 degrees under proof ...	Ditto
Do.	Do. ...	38·1 degrees under proof ...	Ditto
Milk	Private person	14 per cent. Cream abstracted ...	
Do.	Do. ...	27 per cent. Cream abstracted ...	



Port Sanitary Authority.

GENTLEMEN,

During the year 10,619 vessels have arrived at this port; they have been boarded and inspected by Mr. Meads, the Port Inspector of Nuisances, and many of them have been seen by me.

8,047 arrived from the Solent, 2,162 British vessels coastwise, and 140 British vessels from foreign ports; the foreign being as follows:—French, 25; Norwegian, 24; German, 14; Danish, 14; Dutch, 5; Swedish, 7; Russian, 9; Belgian, 1; Turkish, 1.

Great care was taken during the summer and autumn to prevent Cholera gaining access to the port, and generally to carry out the orders of the Local Government Board relating to Cholera.

I have the honour to be, Gentlemen,

Your obedient Servant,

B. H. MUMBY, M.D.,

Medical Officer of Health.

Report of the Inspector of Nuisances

FOR THE YEAR 1895.

NOTICES SERVED

To Cleanse Cesspits	-	22
„ Cellars	-	10
„ Dwellinghouses	-	233
„ Bakehouses	-	12
„ Drains	-	496
„ Water Closets and Pans	-	171
„ Yards, Stables, Sties, &c.	-	140
„ Slaughterhouses	-	29
„ Rain Water Spouts	-	25
„ Rain Water Tank	-	1
„ Workshops	-	45
„ Dairies and Cowsheds	-	4
„ Urinals	-	2
„ Bedding	-	3
To Remove Animals	-	13
„ Manure	-	92
„ Refuse	-	117
„ Offal	-	2
„ Human Excrement	-	9
„ Stagnant Water	-	6
„ Rags	-	5
„ Decomposing bodies of Animals	-	5
„ Bones	-	5
To Repair Cellar Coverings	-	36
„ Drains	-	647
„ Soil Pipes	-	8
„ Rain Water Spouts	-	206
„ Water Closets	-	12
„ Urinal	-	1

To Repair Water Closet Fittings	-	167
„ Dwellinghouses	-	161
„ Ash Pit	-	1
„ Sanitary Defects in Dwellinghouses	-	1126
„ Sanitary Defects in Workshops	-	104
To Construct Smoke-consuming Apparatus	-	11
To Provide Yard trap	-	1
„ Rain Water Spouting	-	26
„ New Water Closet Basins	-	27
To Re-pave Yards, Stables, Sties, &c.	-	505
To Ventilate Basements of Houses	-	4
„ Drains	-	15
To Repair or Raise Ventilating Shafts	-	18
To Drain Yards, Stables, Sties, &c.	-	4
To comply with Slaughterhouse Bye-laws	-	3
„ Nuisance Bye-laws	-	10
To Tank Manure Pit	-	1
To Fill in Dead Wells	-	4
To Discontinue Overcrowding in Dwellinghouses	-	18
„ „ Workshops	-	22
To Connect Premises with Main Sewer	-	6
To Disconnect Rain Water Pipes and Waste Pipes from Drains	-	4
Total	-	<hr/> 4595 <hr/>

NUISANCES REMOVED

Cesspits	-	Cleansed	-	41
Drains	-	„	-	632
Slaughter-houses	-	„	-	26
Dwelling-houses	-	„	-	234
Yards, Stables, Sties, &c.	-	„	-	153
Water Closets and Pans	-	„	-	164
Bakehouses	-	„	-	7
Cellars	-	„	-	12
Bedding	-	„	-	2

Workshops	-	Cleansed	-	41
Rain Water Pipes	-	"	-	30
Urinal	-	"	-	1
Dairies and Cowsheds	-	"	-	4
Manure	-	Removed	-	89
Animals	-	"	-	12
Refuse	-	"	-	108
Stagnant Water	-	"	-	7
Soil Pipe	-	"	-	1
Rags	-	"	-	5
Human Excrement	-	"	-	11
Decomposing Bodies of Animals	-	"	-	6
Offal	-	"	-	1
Bones	-	"	-	6
Water Closet Fittings	-	Repaired	-	162
Water Closets	-	"	-	17
Drains	-	"	-	703
Rain Water Spouts	-	"	-	220
Cellar Coverings	-	"	-	22
Ash Pits	-	"	-	2
Dwelling-houses	-	"	-	143
Soil Pipes	-	"	-	9
Urinal	-	"	-	1
Sanitary Defects in Dwelling-houses Repaired	-		-	1066
" Workshops	-	"	-	109
Yard Traps	-	Provided	-	5
Rain Water Pipes	-	"	-	36
New Water Closet Basins	-	"	-	21
Smoke Nuisances Abated	-		-	7
Drains Ventilated	-		-	21
Ventilating Shafts Raised or Repaired	-		-	36
Premises connected with Main Sewer	-		-	1
Yards, Stables, Sties, &c., Re-paved	-		-	537
Basements of Houses Ventilated	-		-	2
Waste and Rain Water Pipes Disconnected with Drains	-		-	5
Stables Drained	-		-	4

Dead Wells Filled in	-	3
Nuisance Bye-Laws Complied with	-	2
Slaughter-house Bye-Laws Complied with	-	3
Overcrowding Discontinued in Dwelling-houses	-	20
„ „ Workshops	-	17
		—
Total	-	4767
		—

The under-mentioned Articles of Food have been destroyed during the year, as unfit for the Food of Man, namely :—

MEAT AND POULTRY

Carcase of Ox	.	.	1
Carcases of Cows	.	.	6
„ Sheep	.	.	6
„ Pigs	.	.	6
Pieces of Beef and Mutton	.	lbs. 238	
„ Pork	.	6 cwt. 1 qr. 21 lbs.	
Pigs' Plucks	.	.	4
Bullocks' Livers	.	.	3

FISH

Bloaters	.	.	Boxes 516
Herrings	.	.	(Boxes of 600) 4
„	.	.	(Barrels of 600 fish) 3

Kippers	.	.	Boxes	43
Haddock	.	.	„	100
„	.	.	lbs.	42
Cod Fish	.	.	cwt.	2
Hake	.	.	Box	1
„	.	.	Barrel	1
Smelts	.	.	Boxes	32
Plaice	.	.	„	1
„	.	.	Kit	1
„	.	.	Stones	11
Mackerel	.	.		8700
Soles	.	.	Box	1
Whiting	.	.	„	1
„	.	.	Barrel	1
Shrimps	.	.	Baskets	3
Cockles	.	.	Bags	2

FRUIT AND VEGETABLES

Plums	.	.	Gallons	2
Strawberries	.	.	„	4
Pears	.	.	„	4
„	.	.		115
Chestnuts	.	.	Gallons	18
Bananas	.	.	Cases	10
Potatoes	.	.	Sacks	49

INSPECTION

During the year 4595 notices were served to abate nuisances, and 4767 nuisances were removed.

7753 dwelling-houses were inspected.

4501 visits have been made to the various slaughter-houses.

2410 visits have been made to the various dairies, cow-sheds, and Milkshops.

895 inspections have been made of the common lodging houses, of which number 317 were night visits.

1246 visits have been made by the Sanitary Inspectors to the different bakehouses.

4451 visits were made by the Workshop Inspector to the various workshops.

1092 complaints relative to nuisances have been made at the office, and received attention.

INFECTIOUS DISEASES

During the year 1102 cases of Infectious or Zymotic Diseases have been visited and investigated.

745 rooms have been disinfected, and disinfectants supplied at all houses where cases of Infectious Diseases have occurred.

FOOD AND DRUGS ACT

During the year 248 samples of Food and Drugs have been obtained by the Inspectors and submitted to the Public Analyst for analysis.

DRAINS

4066 Drains have been tested or re-tested, out of which number your Inspectors found 1953, or 48·03 per cent. defective.

PROSECUTIONS AND FINES

Public Health Act :—

For non-compliance with Notices under the Nuisance Clauses of this Act, proceedings were instituted in 19 cases. Orders were made by the Court for the abatement of the nuisances in 12 instances, fines and costs were inflicted in 10 cases, and the remaining cases were withdrawn on the work being done to the satisfaction of the Authority. The fines and costs amounted to £8 : 3s. od.

For exposing for sale and having deposited on the premises meat which was unfit for food, two summonses were issued. One person was fined £1 : 1s., and 14s. 6d. costs, and in the remaining case a fine of £2, and £1 : 6s. 6d. costs, was imposed.

Proceedings were taken against one person for obstructing an Inspector whilst in the execution of his duty. The case after one adjournment was eventually dismissed.

Proceedings were also taken against a firm of fish friers for carrying on an offensive trade. After two adjournments the case was withdrawn, the work necessary for the abatement of the Nuisance having been carried out to the satisfaction of the authority.

Food and Drugs Acts :—

Under these Acts summonses were issued in 17 cases, convictions were obtained in 15 cases, two cases were dismissed and the fines and costs amounted to £22 : 16s. 6d.

Building Bye-Laws :—

Proceedings were taken against one person for letting a house which had been declared by the Authority to be uninhabitable, he was convicted and fined £1 and 18s. costs.

I am, Gentlemen,

Your obedient Servant,

FRED. L. BELL,

Inspector of Nuisances.

Contagious Diseases (Animal's) Act, 1894.

INSPECTOR'S REPORT

For the Year ending December 31st, 1895.

INSPECTION OF CATTLE.—I have to report that the undermentioned heads of cattle have been inspected during the year, the majority of which arrived at the Portsmouth Town Station from various markets and districts.

Beasts	.	.	.	7,916
Sheep	.	.	.	50,512
Calves	.	.	.	4,757
Pigs	.	.	.	16,418
Total				79,603

INSPECTION OF CATTLE-TRUCKS, ETC.—The following number of Cattle-Trucks, &c., have been inspected.

Cattle Trucks	.	.	2,348
Horse-Boxes	.	.	1,109
Tow-Boats	.	.	371
Total			3,828

In every case I found them thoroughly cleansed and limewashed as required by the Order of the Board of Agriculture. The cleanliness of such Trucks, &c., used by the Railway Authorities and Companies deserves special credit.

SWINE FEVER.—On December 10th, 1894, the Board of Agriculture revoked the “Markets and Fairs and Swine Fever Infected Areas Orders,” these Orders prevented pigs being moved without licenses, and caused all such pigs to be killed within five days. The revoking of the above Orders allowed pig keepers to stock their sties with store pigs, and a very large number were imported into the Borough; soon after, Swine Fever became Epidemic, necessitating my Committee publishing Regulations on April 20th, 1895, which prevented any pigs being brought into the Borough without a license, which compelled owners to kill all such swine within 24 hours. The first outbreak occurred at Hilsea, outside the boundaries, but it unfortunately soon spread to within the Borough, the first outbreak being at Copnor, where there are a great number of sties. The Inspector from the Board of Agriculture found it was necessary to slaughter the whole of the pigs in the sties situated within a radius of half-a-mile with a view to stop further infection.

In spite of all the stringent precautions taken the disease soon became apparent in various parts of the Borough, viz.:—Milton, Portsea Island Union, the Canal, and North End, &c. The whole of the pigs in each instance, whether diseased or sound, were slaughtered in accordance with the instructions of the Board of Agriculture. The total number of pigs slaughtered was 711. The number that succumbed to the disease was 119, making a total of 830 pigs, for which the Board of Agriculture compensated the various owners to the amount of £1,156 : 18s. od.

During my whole tenure of office I have never had such a year in which Swine Fever has been so prevalent. One of the chief causes of such outbreaks I regret to say is the condition under which pigs are kept, there being no restrictions upon pig owners as to the condition, and circumstances under which pigs are allowed to be kept. It is my firm opinion that if certain regulations were laid down as to the sites, manner,

and mode of construction of the sties, such outbreaks would seldom occur. A large number of sties in this Borough are situated upon disused brick fields into which have been cast town refuse, and upon this pigs are allowed to ruminate, and I beg to point out that in wet seasons, such as was experienced at the end of 1894, there could not be a more favourable place than that instanced, to foster the disease. The enforcing of the Regulations together with the issuing of Licenses which amounted to 3,150, licensing 12,233 pigs into the Borough necessarily caused an extraordinary amount of work, and I take this opportunity of thanking the Medical Officer of Health, and his staff of Inspectors, for the assistance they rendered me. I also wish to tender my thanks to the Chief Constable and his staff for the efficient supervision that was exercised in the detection of infringements of the Regulations.

OTHER DISEASES which have been scheduled by the Board of Agriculture during the past year are Sarcptic Mange of Horses, Asses, and Mules; Influenza, otherwise called or known as pink eye and bilious fever of Horses, Asses, and Mules; Strangles of Horses, Asses, and Mules; and Parasitic Mange of Horses, Asses, and Mules. The scheduling of the above diseases will enable the Committee to deal with diseases which have long been considered Contagious and dangerous to other animals. No cases, however, have yet come under my notice since the enforcement of these Orders.

I am pleased to report that of all other diseases scheduled, no cases have occurred during the whole year.

PROSECUTIONS.—Proceedings have been instituted against two persons for the removal of Swine into the Borough in contravention of the Regulations. Fines amounting to £8 : 15s. 6d. were imposed.

Owing to my late illness the Committee appointed Mr. W. H. Turner to assist me in carrying out the duties under this Act, which duties are increasing year by year. I wish to acknowledge the consideration of the Committee in this matter and state that in the ever increasing work I shall have an able assistant.

I am, Gentlemen,

Your obedient servant,

GEO. W. MONKCOM,

Inspector under the Contagious Diseases (Animals) Act.





BOROUGH OF PORTSMOUTH.

LIFE TABLES

1881-1890

**Being an Appendix to the Report of the
Health of Portsmouth for the Year 1895**

BY

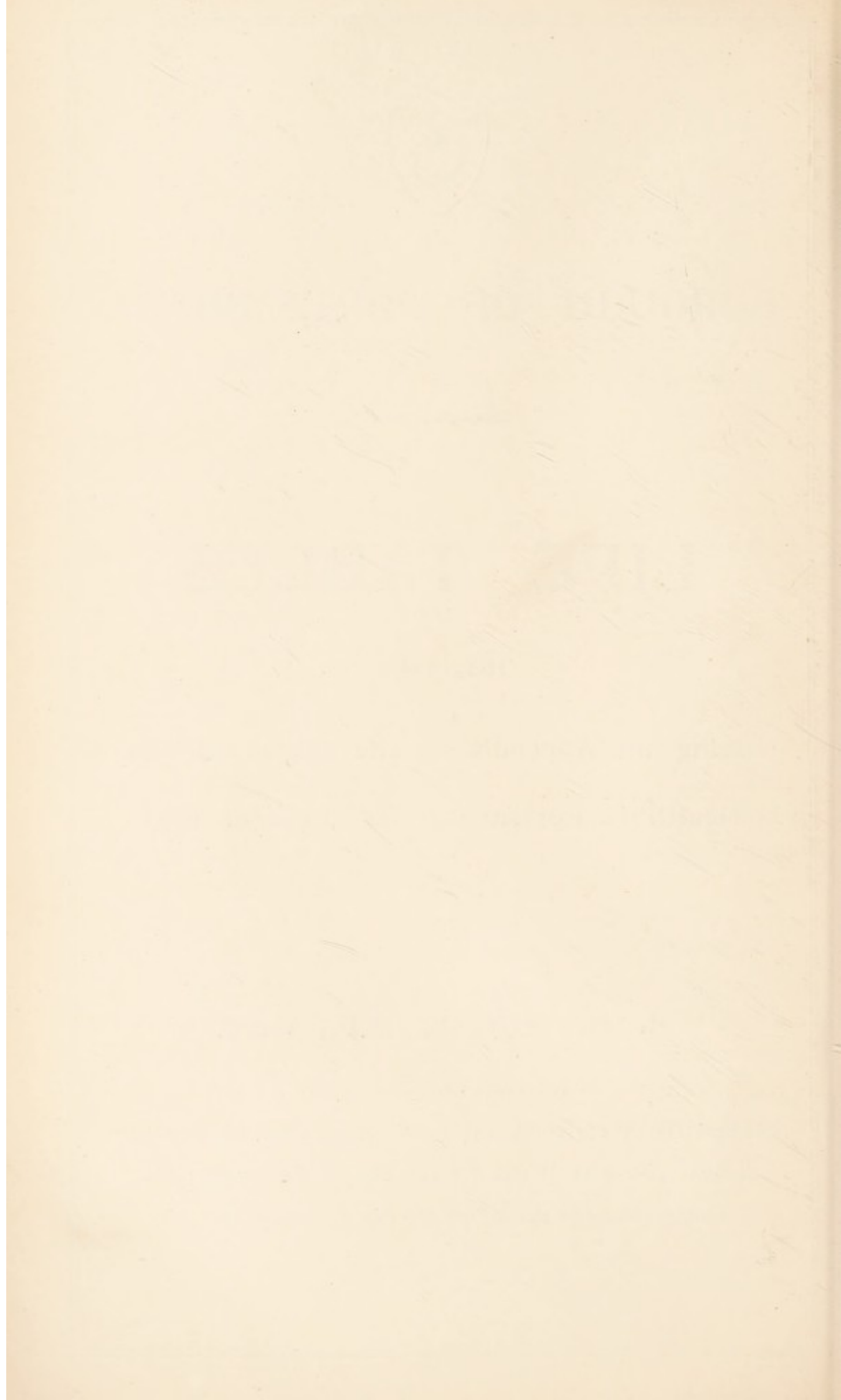
B. H. MUMBY, M.D., Aberd.

D.P.H. Cambs. ; F.R.Met.S. ; F.S.S.

Medical Officer of Health and Public Analyst for the Borough ;

Medical Officer of Health for the Port of Portsmouth ; and

Medical Officer to the Milton Infectious Diseases Hospital.



INTRODUCTION

The following Life Table has been long delayed owing to various circumstances, but as the value of such a table is, that the vital conditions of the inhabitants of Portsmouth during the ten years under consideration, viz. 1881-1890, are shewn in the most trustworthy statistical form, and will make in the future a fairly firm foundation upon which opinions may be based as to the growing salubrity or the reverse of the town, they are now published.

Death-rates, which now attract so much attention especially in health resorts, are open to many fallacies, especially when they refer to short periods of time. They are open to error, owing to the different numbers of males and females, and to the different ages of the inhabitants of towns whose death-rates are compared. Death-rates therefore require to be corrected according to the age and sex of population, and even then the death-rate of every age of life should be taken into consideration in forming an opinion as to the healthiness of any particular district. The statistical value of a Life Table is that it eliminates the differences of age and sex better than any other method, and at the same time it makes the deduction from the numbers of the population and the deaths therein, more distinct, and more easily appreciated, as the results of a life table may be translated into the "expectation of life," for each year of life; a far more accurate statement, than that the death-rate for the same age is so and so per 1000, per annum. This Life Table shows the vital statistics of Portsmouth for the ten years 1881-1890 in the most reliable form, and will be of use in future years as a record of that period. It is therefore most important that it should contain no avoidable error, and as the construction of a Life Table is so complicated, and requires considerable mathematical ability and experience in dealing with vital statistics, I have been very fortunate in obtaining the assistance of Mr. A. C. Waters, of the Statistical Department of the General Register Office, Somerset House, whose skill in mathematics and in the construction of Life Tables is well known. I am indebted to him for novel

methods of improved accuracy in the construction of the tables, and for general advice and assistance.

An ideal Life Table would be found by following up 100,000 persons from their birth until their deaths, making a note of the age at which each of the 100,000 died. Such a life table would take a few years over a hundred to complete, the individual members of the 100,000 would move about to different places having varied sanitary advantages, and the sanitary conditions of the different places would greatly alter during the hundred odd years, so that such a Life Table would be deficient in the great object of shewing the effects upon health, of conditions under which a large population are living. Instead of thus taking 100,000 persons, we take the actual number of persons found in the census of 1881 and that of 1891; we also take the total number of deaths which occurred during the intervening ten years. Thus we obtain a knowledge of the effects of the conditions of life in Portsmouth during the ten years under review, which can be compared with Life Tables similarly constructed for the whole of England and for other large towns. The figures used are those given in the census and by the Registrar General, as relating to Portsea Island registration district, which besides the Urban Sanitary district of Portsmouth, includes the small population of Great Salterns, which had in 1881 a population of 33, and in 1891 of 27. The 769 deaths, giving a death rate of 0.5 per 1000 per annum, which occurred in the Royal Portsmouth, Portsea and Gosport Hospital, the Garrison Station Hospital and Royal Marine Artillery Infirmary, and the Women's and Children's Hospital are included. The local Hospital contains a goodly number of patients belonging to the outlying districts, and the Garrison Station Hospital frequently receives soldiers returning home so seriously ill, that they cannot be sent to Netley, but as it would be impossible to get correct figures for all the ten years to be free from criticism, the whole of the deaths have been included, as of course have those occurring in the Portsea Island Union and Borough Asylum, both of which are situated in the registration district, although they

both contain inmates belonging to other districts.

It has been frequently stated that Portsmouth is indebted to the large number of soldiers and sailors living in its midst for its low mortality. The town certainly contains a varying number of men selected for their healthiness, who are living under favourable conditions as to their health, but if the death-rate at the soldiers' age, and the number dying each year at the soldiers' age, be compared with those in England and Wales, it will be noticed that there is no indication of these lives having any effect upon the mortality figures. Against the favourable lives must be put those of the pensioners, and those who are invalided home from tropical countries with damaged health, as well as those young men who are discharged from the army under the short service system, whose health has been much prejudiced by living in foreign climates. There are some other aspects, which need not be more than alluded to here, in which the life of a town is not improved by the possession of a garrison within its walls. It must be remembered too, that soldiers taken ill are treated in hospital, those dying being registered in Portsmouth, unlike the favourable lives of say servant girls in a rich community, who swell the population, but who go home to the country if taken ill, and whose deaths are not registered in the town in which they lived whilst well. Large boys' and girls' schools have a similar effect upon vital statistics especially noticeable in small communities.

The death-rate of the first five groups of ages, (male) with the exception of the first, is more favourable in Portsmouth than in England and Wales as a whole, *i.e.*, the death-rate for males from the age of 5 to 25 is lower in Portsmouth than in England and Wales. This is also true of females from the age of 10 years to 25. After 25 years the rates for both males and females are slightly higher than in England and Wales as a whole, until the age of 55 in both sexes, when again the death rate in Portsmouth is lower.

The first process in the construction of the tables, is to find the *years of life* in the period to which the deaths relate. If we work this out for each *age-group* separately on its own

rate of increase, and for the *whole population* independently, the two results will not quite agree. It will therefore be better to work out the years of life for

1. The total population of each sex.
2. The population at 5 years and upwards.
3. The population at 10 years and upwards, &c.

especially as these, and not the numbers *in the groups* 0-5, 5-10, etc., are the numbers which we shall use in calculating the Life Table.

First then find the logarithm of the populations of (1), (2), (3), etc., etc., for the 1881 and 1891 censuses. The difference between the logarithms of a number in 1881, and the corresponding number in 1891, is the logarithm of the decennial rate of increase. The logarithm of increase divided by 40 will give the logarithm increase for $\frac{1}{4}$ year, and if this be subtracted in each case from the logarithm of the census population in 1881 and 1891, we get the logarithm populations at the beginning of 1881 and at the beginning of 1891 which may be taken as the end of 1890, *i.e.*, the logarithm population at each end of the period to which the deaths relate. Now on the hypothesis of a constant rate of growth, if P and Q = populations at beginning and end of any period, the true mean population in the period is

$$\frac{Q - P}{\text{Hyp. log. of } \frac{Q}{P}}$$

To avoid the great labour of working out hyperbolic logarithms we may use an approximation that for any but a very rapid rate of increase is practically exact, *viz.* :

$$\begin{aligned} \text{Mean population} &= \frac{1}{3} \left(\frac{P + Q}{2} + 2\sqrt{P Q} \right) \\ &= \frac{P + Q + 4\sqrt{P Q}}{6} \end{aligned}$$

which is easily worked out thus:—

Mean of logarithms already found = logarithm $\sqrt{P Q}$.
Take out the numbers P, Q and $\sqrt{P Q}$, and the rest follows at once

The *Years of Life* in the decennium are equal to the mean population divided by ten.

TABLE I.

Death Rate in each group per 1000 for the
10 Years 1881-90.

Age	MALES					
	England & Wales	London	Ports- mouth	Brighton	Manches- ter, City	Glasgow
0—	61·69	73·09	62·70	64·01	83·96	86·24
5—	5·34	5·93	5·31	4·83	7·62	10·65
10—	2·94	2·92	2·81	2·30	3·71	5·52
15—	4·30	4·05	3·89	4·13	5·45	7·24
20—	5·71	5·44	5·63	5·05	6·95	7·93
25—	7·73	8·65	8·16	7·72	11·03	9·34
35—	12·35	14·96	12·72	12·94	19·55	15·20
45—	19·28	23·87	20·17	21·17	31·14	26·50
55—	34·66	41·33	33·70	32·76	54·40	45·81
65—	70·17	77·97	66·68	64·36	102·65	84·31
75 and } upwards }	162·18	155·93	154·32	132·29	182·23	149·47
or 85 and } upwards }	..	297·63	..	293·80	317·13	262·08
Age	FEMALES					
	England & Wales	London	Ports- mouth	Brighton	Manches- ter, City	Glasgow
0—	51·99	63·26	52·55	52·59	70·79	75·52
5—	5·25	5·82	5·74	4·45	7·40	10·14
10—	3·09	2·89	2·90	2·53	3·69	5·33
15—	4·40	3·58	4·59	2·92	4·91	7·13
20—	5·51	4·40	5·15	3·44	6·11	8·94
25—	7·34	6·82	7·55	5·42	9·50	10·99
35—	10·55	11·42	10·03	9·01	15·45	14·25
45—	15·04	17·23	15·89	14·44	24·31	21·54
55—	28·40	30·77	25·99	24·36	45·62	38·42
65—	60·08	63·28	58·33	50·93	87·91	70·21
75 and } upwards }	147·32	134·28	144·46	121·92	159·77	123·75
or 85 and } upwards }	..	264·77	..	266·40	258·33	223·97

Let y be the years of life at age x and upwards, d the deaths at age x and upwards. This means that among a population of y persons kept up for a year there would be d deaths or that if the deaths to be spread evenly over the year, $y + \frac{1}{2}d$ persons at the beginning of the year, would be reduced to $y - \frac{1}{2}d$ by the end, the deaths having been d , and the average population y . In this case the average chance of a given person living through the year would be $\frac{y - \frac{1}{2}d}{y + \frac{1}{2}d}$ or $\frac{2y - d}{2y + d}$ and, since $\frac{d}{y}$ = death rate, this is equivalent to the formula p (= probability of living a year) = $\frac{2 - m}{2 + m}$

Clearly the same thing is true of the years of life and deaths in any age group beginning say at age x and ending at $x + h$; and if we calculate the numbers $2y + d$ and $2y - d$ for each age for which the facts are known, we can get the intermediate numbers in groups of ages (x to $x + h$) by subtraction. We can find the average chance that a person in a group of ages (10 to 15, 25 to 35, etc.) will live a year, and this has sometimes been interpreted as the chance that a person at the middle age of the group will live a year, but this assumption is not warranted. Doubtless the chance found is accurately the chance at some age in the group, and probably that age is not far from the centre age, but in a group of ten years we cannot be sure that the age is not a year or more on one side or other of the centre age. By making the group smaller we make the possible error less. If we calculate by interpolation the values of $2y + d$ and $2y - d$ for every year of age, and assume the resulting probabilities to belong to the middle of each year; for example, that the chance that persons in the age group 25 years to 26 will live a year, is equal to the chance that a person aged $25\frac{1}{2}$ will live a year, we cannot possibly be a year out, and our error is probably reduced to a few days; but by mathematical methods we can still further reduce the age groups.

Each of the quantities $2y + d$ and $2y - d$ varies with the age; and in assuming that we can interpolate those quantities for intermediate ages, we assume that each of them

can be expressed as a *function* of the age. Without yet deciding on any form for the function, denote $2y + d$ by $\phi(x)$ and $2y - d$ by $\psi(x)$

The numbers in the age group x to $x + h$ are

$$\phi(x) - \phi(x + h)$$

and $\psi(x) - \psi(x + h)$ respectively.

That is, that the mean probability that persons aged $x + h$ will live a year is

$$\frac{\psi(x) - \psi(x + h)}{\phi(x) - \phi(x + h)} \quad \text{or} \quad \frac{\psi(x + h) - \psi(x)}{\phi(x + h) - \phi(x)}$$

This may be written
$$\frac{\frac{\psi(x + h) - \psi(x)}{h}}{\frac{\phi(x + h) - \phi(x)}{h}}$$
 whatever the

value of h , that is, whatever the size of the age group. If h be indefinitely diminished, that is if the age group be brought within infinitely narrow limits, this fraction finally becomes $\frac{\psi'(x)}{\phi'(x)}$

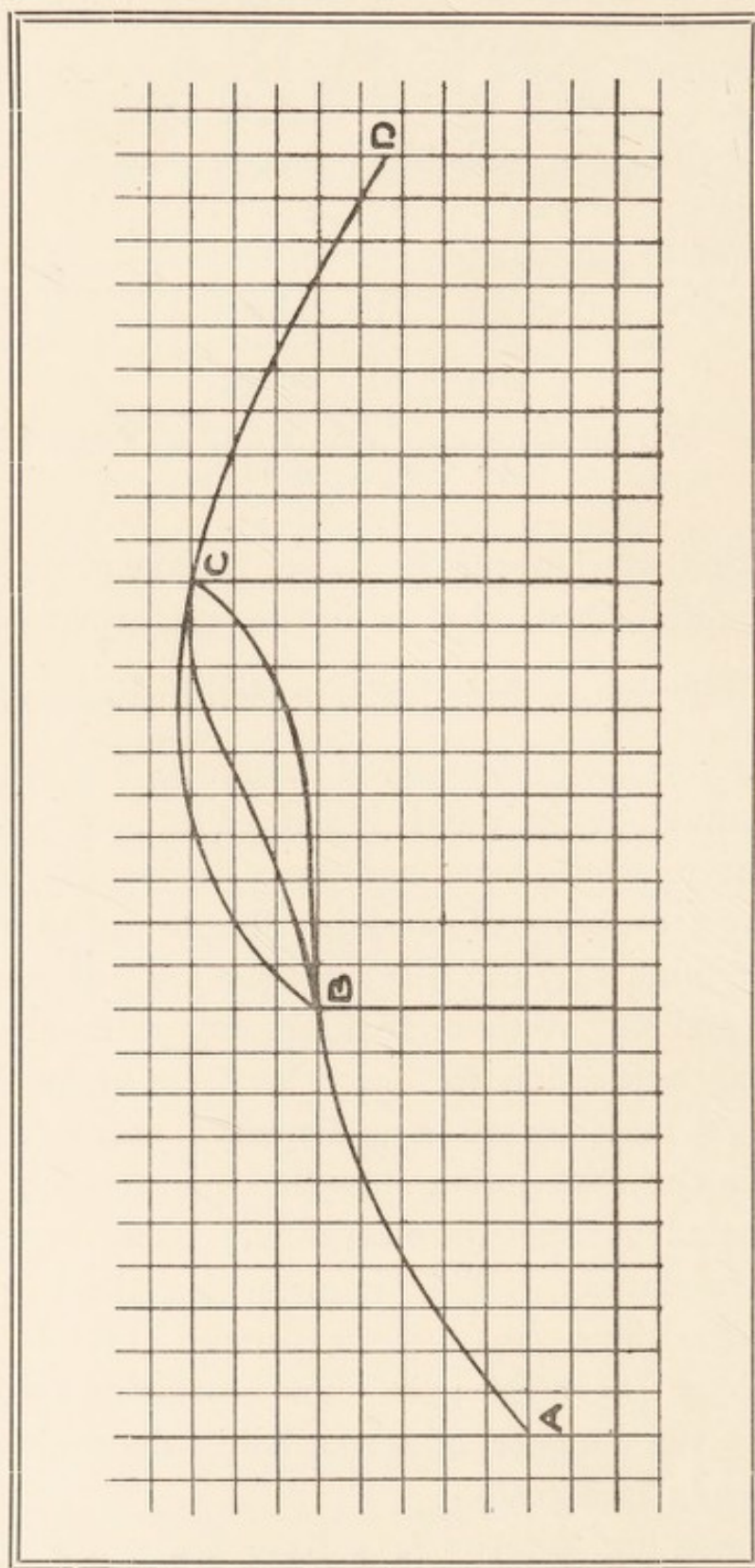
which is therefore the probability of living a year at the exact age of x . This must, by the way it is arrived at, be the probability amongst persons whose mean age was x during the year. It is therefore the probability of surviving from $x - \frac{1}{2}$ to $x + \frac{1}{2}$. In order to determine $\phi'(x)$ and $\psi'(x)$ we must settle the form of the functions ϕ and ψ . Without making any attempt to find a mathematical expression for the "law" of population or of mortality, we may secure a sufficiently accurate working hypothesis in the assumption that the quantities in question, or better, their logarithms, are capable of being *interpolated by the method of differences*. This implies that these quantities, or their logarithms, may be expressed by the formula $A + Bx + Cx^2 + Dx^3 + Ex^4 + \text{etc.}$ The co-efficients A, B, C, D, E , etc., and the number of terms being determined by the actual figures in each case.

$$\text{Common log. } \phi(x) = A + Bx + Cx^2 + Dx^3 + Ex^4$$

$$\text{Common log. } \psi(x) = a + bx + cx^2 + dx^3 + ex^4$$

$$\text{Then } \phi x = 10^{A + Bx + Cx^2 + Dx^3 + Ex^4}$$

$$\text{Then } \psi x = 10^{a + bx + cx^2 + dx^3 + ex^4}$$

DIAGRAM REFERRED TO ON OPPOSITE PAGE. *Curves greatly exaggerated.*

By stopping at the fourth power of x we have implicitly assumed that the logarithms of the function form a series of which the fourth differences are constant. Such a function is completely determined by taking five values of it. In the present case we shall keep the assumption within very narrow limits: If four successive quinquennial or decennial terms of the series $2y + d$ (denoted by ϕx) or $2y - d$ (denoted by ψx) be taken, and intermediate values of their logarithms be calculated by interpolation, their intermediate values will be practically true *near the middle of each series*. Translated into practice this means that we shall use the five terms of each series belonging to ages 25, 35, 45, 55, 65, in order to calculate $\frac{\psi'(45)}{\phi'(45)}$ the five terms of each series belong to ages 35, 45, 55, 65, 75, to calculate $\frac{\psi'(55)}{\phi'(55)}$ and so on. The only exceptions to this limitation of the assumption are at the extreme ends of the Table; for instance $\frac{\psi'(5)}{\phi'(5)}$ must be calculated from the terms for ages, 0, 5, 10, 15, 20.

In this way the probabilities of living one year from $4\frac{1}{2}$ to $5\frac{1}{2}$, from $14\frac{1}{2}$ to $15\frac{1}{2}$, from $24\frac{1}{2}$ to $25\frac{1}{2}$, etc., have been calculated and the intermediate values ($5\frac{1}{2}$ to $6\frac{1}{2}$, $6\frac{1}{2}$ to $7\frac{1}{2}$, etc.) obtained by interpolation with four orders of differences. In order to avoid the dislocations that occur in passing from a series ending at any age, to another beginning at that age, the whole set of series 5-45, 15-55, 25-65, has been used, and the overlapping parts welded together on a uniform method. Thus the log. probability at age 36 is found from the four values in four overlapping series. The weight given to each value depending on its distance from the middle of its series. The simple geometrical illustration shewn opposite, will perhaps make the method clear, the discrepancy being greatly exaggerated in the diagram.

Let A, B, C, represent one series of figures, and B, C, D, another; A, B, C, D, being fixed values. To shift from one curve to the other, at either B or C, is out of the question. Divide the space between the ordinates at B and C, into (say)

10 equal parts, draw the corresponding intercepted ordinates between the two curves, mark off a small proportion of the first ordinate, beginning from B a larger proportion of the second, and so on to the end. Draw a new curve through the points thus made, and the new curve passes smoothly from the branch A, B, to the branch C, D. The method used for the Life Table is an extension of this principle to the case of *four* overlapping curves.

The log. probabilities of living from $4\frac{1}{2}$ to $5\frac{1}{2}$ being thus determined, those for 5 to 6, 6 to 7, 7 to 8, etc., are interpolated by the method of differences. These are the logarithms of p_x in a Life Table, and by successive additions they give the logarithms of l_x , the surviving at each age out of a given number born.

The above method is suitable for ages from five onwards, but the case of children under five must be separately dealt with. This is always an awkward part of a Life Table, owing to the inaccurate returns of ages of children at the census. It is necessary to calculate p_x for each age separately because it changes so rapidly that the method of series is unsuitable. From the actual births in 1876-1890, and the deaths at each age under five in the same years, the average number of children living in each year aged under 5, in 1881-1890 was deduced. The five numbers were summed together, and their total compared with the number 0-5 already obtained in dealing with the whole population. Finally this number was divided out in the proportions indicated by the figures obtained by the births and deaths. From these estimated numbers of children living at 0-1, 1-2, etc., and the deaths at the same ages in 1881-1890, the probabilities of living a year were deduced for each year up to five. The l_x column followed at once from its logarithms, the d_x as the successive differences of the l_x , the P (the average number living through each year of life) as the means of two successive l_x . P_0 is however an exception to this; since children die much faster in the earlier part of the first year of life than in the latter part, it was necessary to take into account the

numbers who die under 3 months, 3 months to 6 months, etc. The Q_x or future years of life are obtained by summation of P_x and finally E_x (expectation of life) is $\frac{Q_x}{l_x}$

TABLE II.

Population in Portsea Island*					Deaths in Portsea Island	
CENSUS 1881			CENSUS 1891			
Ages	Males	Females	Males	Females	Males	Females
0—	8629	8527	9698	9875	5746	4835
5—	7312	7244	9220	9038	439	467
10—	6397	6566	8042	8413	203	217
15—	5990	6484	7939	7085	271	328
20—	5910	6275	7367	8051	374	369
25—	9639	10131	11834	13407	876	889
35—	7642	7780	8527	9861	1028	973
45—	5137	5532	6716	7099	1195	1003
55—	3557	4078	4084	4831	1288	1158
65—	1679	2176	2356	3155	1342	1555
75—	454	689	708	1057	822	1138
85—	71	114	61	129	169	276
95—	..	9	2	3	9	32
Total	62417	65605	76554	82724	13762	13240
Grand Totals	128,022		159,278		27,002	

*The registration district of Portsea Island comprises the whole of the Borough of Portsmouth, containing at the last census 159,251 persons, and the district of Great Salterns in which at that time 27 were living.

DEDUCTIONS

TO BE DRAWN FROM THE TABLES.

Fortunately the Supplement to the Registrar General's Fifty-fifth Annual Report has been published during the last few months. It contains a summary of the vital statistics for the ten years 1881-1890, and also a Life Table for the whole of England and Wales, based upon facts similar to those used in the present tables, and which therefore form an admirable basis for comparison.

Life Tables dealing with the same period have also been prepared by Dr. Tatham, late Medical Officer of Health for Manchester, and now Superintendent of Statistics at the General Register Office, Somerset House; Dr. Newsholme, Medical Officer of Health for Brighton; Dr. Chalmers, one of the Medical Officers of Health for Glasgow; Mr. Shirley Murphy, Medical Officer of Health to the London County Council; and Mr. S. S. Moore, (Female), and Dr. Hugh R. Jones, (Male) of Liverpool, for these several towns. I have taken the liberty of using their tables in conjunction with those relating to Portsmouth for the purpose of comparison. It is unfortunate that there is no Life Table of Portsmouth relating to an earlier time; if such had existed, valuable lessons might have been deduced, as to the effects of the altered conditions of life, owing to the various sanitary works which have been carried out; however, with the aid of the above mentioned tables, the result of living in Portsmouth may be compared

with those of living in four of the largest cities of England and Scotland, and including a health resort situated a short distance off, on the South Coast. All these Life Tables are based upon the years 1881-1890, giving opportunity for a comparison which could not be made until quite recently. The tables show that whilst the conditions of life in Portsmouth are slightly inferior to those enjoyed by the inhabitants of Brighton, a little superior to those of Londoners, and remarkably similar to those enjoyed by the inhabitants of England and Wales as a whole, they are markedly superior to those under which the inhabitants of Manchester, Liverpool, and Glasgow, spend their existence.

The first table deals with the death rate per 1000 per annum of England and Wales, and the towns mentioned above, for the decennium. It shows the great mortality in the first years of life, but this rapidly declines until it is at its lowest during the quinquennial period of 10 to 15 years, and from that time gradually increases until the age of about 65 years is arrived at, when it equals that of the first five years of life and afterwards exceeds that figure.

But the figures in the Life Table as before said, are more reliable owing to the removal of fallacies which must occur in death rates, and it has been generally held by statisticians that the most sensitive tests to be found in the tables are these : (1) in the column P_x shewing the chance of living one year, (2) the expectation of life for each age in column E_x and (3) the numbers surviving at each age out of a given number born, as in column l_x .

TABLE III.

The chance of living one year at various ages in England and Wales, Portsmouth, Manchester and Glasgow, 1881-90

Ages	MALES					
	England & Wales	Portsmouth	Brighton	Manchester City	Glasgow	Liverpool
0	·83896	·84142	·84608	·80650	·82531	..
5	·99168	·99625	·99290	·98707	·98417	·99109
10	·99805	·99746	·99761	·99397	·99455	·99566
15	·99713	·99683	·99646	·99576	·99347	·99446
20	·99520	·99527	·99539	·99447	·99219	·99277
25	·99364	·99345	·99403	·99168	·99187	·99000
35	·98981	·98945	·98964	·98449	·98831	·98275
45	·98437	·98327	·98311	·97513	·97920	·97220
55	·97398	·97384	·97369	·95904	·96469	·95270
65	·94983	·95384	·95406	·92307	·93675	·91091
75	·89542	·89222	·91501	·85891	·88267	·86211
Ages	FEMALES					
	England & Wales	Portsmouth	Brighton	Manchester City	Glasgow	Liverpool
0	·86887	·87041	·87672	·84169	·85318	..
5	·99214	·99010	·99405	·98635	·98511	·99150
10	·99833	·99528	·99726	·99397	·99497	·99577
15	·99705	·99640	·99710	·99604	·99370	·99505
20	·99511	·99534	·99683	·99495	·99180	·99341
25	·99379	·99368	·99589	·99295	·99028	·99061
35	·99076	·99041	·99271	·98732	·98738	·98418
45	·98765	·98611	·98857	·98096	·98293	·97582
55	·97910	·98067	·98098	·96646	·97085	·95681
65	·95801	·96175	·96487	·92307	·94646	·92153
75	·90721	·90134	·91233	·85891	·90403	·88903

The chance of a male child at birth (see Table III.) living one year in Portsmouth, is $\frac{84,142}{100,000}$ and that of a female child $\frac{87,041}{100,000}$ whilst in Brighton the chance is $\frac{84,608}{100,000}$ for a male, and $\frac{87,672}{100,000}$ for a female child; in Glasgow the chance is reduced to .82531, in Manchester it is further reduced to .80650, whilst in England and Wales as a whole, the chance is slightly less favourable than in Portsmouth, by .83896 for a male, and .86887 for a female child. The probability of a boy of five in Portsmouth living a year, is greater than in England and Wales, or in Brighton, but in the case of a girl of five, the probability is more favourable in England and Wales and in Brighton. At the other ages, except for boys of fifteen, persons in Portsmouth have a slightly worse chance than in England and Wales as a whole, and in Brighton; but at all ages, except at Glasgow for females of 75, the chance of living one year is at Portsmouth greatly in excess of living one year at either Glasgow or Manchester.

TABLE IV.

The Expectation of Life at various ages in England and Wales, Portsmouth, London, Brighton, Manchester, Glasgow, and Liverpool.

Ages	MALES						
	England & Wales	Portsmouth	London	Brighton	Manchester	Glasgow	Liverpool
0	43·66	43·68	40·66	43·59	34·71	35·18	34·2
5	52·75	52·86	50·77	52·87	45·59	46·97	45·9
10	49·00	48·64	47·22	49·12	42·75	44·32	42·9
15	44·47	44·27	42·88	44·67	38·78	40·51	38·8
20	40·27	40·06	38·70	40·55	34·62	36·90	34·8
25	36·28	36·10	34·70	36·51	30·69	33·29	31·0
35	28·91	28·75	27·39	29·02	23·76	26·06	24·2
45	22·06	22·06	21·00	22·36	17·80	19·54	18·3
55	15·74	15·98	15·31	16·48	12·49	13·99	13·2
65	10·31	10·34	10·59	10·96	8·15	9·38	8·8
75	6·10	5·76	7·20	6·64	5·11	5·96	6·1

Ages	FEMALES						
	England & Wales	Portsmouth	London	Brighton	Manchester	Glasgow	Liverpool
0	47·18	46·02	44·91	49·00	38·44	37·70	35·65
5	54·92	53·45	54·42	56·92	48·06	48·27	47·74
10	51·10	50·39	50·95	53·15	45·43	45·44	44·72
15	46·55	46·37	46·65	49·07	41·50	41·59	40·62
20	42·42	42·23	42·45	44·76	37·33	38·00	36·58
25	38·50	38·30	38·34	40·48	33·38	34·60	32·72
35	31·16	30·97	30·69	32·48	26·30	28·06	25·94
45	24·05	24·14	23·80	25·07	19·79	21·61	19·84
55	17·23	17·46	17·34	18·48	13·91	15·60	14·32
65	11·26	11·08	11·78	12·19	9·11	10·69	9·80
75	6·68	6·12	7·79	6·97	5·76	6·97	7·20

The *expectation of life* or *after mean life time* as expressed in column E_x , is a test which can be more easily expressed and readily grasped than the probability of living one year at certain ages. The test is more popular but not quite so delicate.

Table IV. shows the expectation of life for males and females for certain ages in England and Wales, London, Portsmouth, Brighton, Manchester, Glasgow and Liverpool. The expectations of life for males in Portsmouth, Brighton, and England and Wales, as a whole, are remarkably similar; at none of the ages mentioned are they separated by a whole year. At the commencement of life Portsmouth has the advantage of 0.02 of a year over England and Wales, and of 0.09 over Brighton, but at five years of age Brighton takes the first place by 0.01, and England and Wales third by 0.11 behind Portsmouth. A male child born and living in London might expect three years less of life than if he were born and living in Portsmouth or Brighton, but nine years more than one born and living in Manchester or Liverpool, and almost ten and a half years more than one born and living under the conditions which obtain in Glasgow. This enormous advantage is not maintained, but at all periods of life, except extreme old age, when the ages given are forced to be received with considerable caution, the expectation of life is several years greater in Portsmouth, London, and Brighton, than in the great manufacturing towns in the North. The expectation of life for females is much more favourable in Brighton than in any of the other towns, or than England and Wales as a whole, which is no doubt due, as has been pointed out by Dr. News-holme, to the disturbing influence of a large proportion of servant girls who swell the population of females, but who return home to the country when they are taken ill. Mr. Shirley Murphy has also drawn attention to the same fact in his report to the London County Council for 1893, showing how the immigration of healthy young lives who return home if they are seriously ill, affects both male and female rates, but especially the female.

It will be noticed how very closely the expectation of life for females in Portsmouth follows that for England and Wales, though not quite so favourably as for males.

From the fifth table shewing *the numbers surviving at each age* of a given number born, it may easily be discovered that the less favourable vital conditions under which the population of the large manufacturing towns exists, affect most injuriously the *working capacity* of men, by shortening their lives during the years in which their principal work is done, viz. from 25 to 65.

TABLE V.

Number surviving at certain ages of 100,000 born in 1881-90

Ages	MALES					
	England & Wales	London	Portsmouth	Brighton	Manchester, City	Glasgow
0	100,000	100,000	100,000	100,000	100,000	100,000
5	75,149	72,300	75,011	75,125	67,896	66,870
10	73,348	70,189	73,866	73,344	64,675	63,550
15	72,619	69,170	72,880	72,501	63,076	61,799
20	71,256	67,784	71,524	71,015	61,644	59,610
25	69,381	65,963	69,593	69,273	59,645	57,288
35	63,965	60,499	64,061	64,090	53,173	52,148
45	56,444	52,092	56,147	56,175	43,664	44,653
55	46,298	41,029	45,566	45,303	31,859	34,061
65	32,248	27,139	32,450	32,455	18,067	21,211
75	15,389	12,440	15,892	16,666	6,069	8,711

Ages	FEMALES					
	England & Wales	London	Portsmouth	Brighton	Manchester, City	Glasgow
0	100,000	100,000	100,000	100,000	100,000	100,000
5	78,324	75,039	78,305	78,546	71,792	69,992
10	76,615	72,888	75,450	76,811	68,256	66,865
15	75,906	71,841	73,941	75,839	66,614	65,109
20	74,432	70,568	72,504	74,733	65,219	62,831
25	72,479	69,032	70,596	73,470	63,300	60,108
35	67,099	64,479	65,316	69,508	57,355	53,802
45	60,401	57,518	58,172	63,475	49,192	46,597
55	51,638	48,415	49,518	54,779	38,324	35,441
65	38,550	35,592	38,219	42,731	24,072	25,156
75	20,421	18,881	20,375	25,080	9,458	12,074

This table shows that of 100,000 boys born in Portsmouth only 75,011 reach five years of age, in other words only three of every four boys born survive to attain the fifth year of age. This early loss of one quarter of the boys born is enormous, but it is only slightly in excess of that at Brighton and in England and Wales, as a whole, it is much less than in London, whilst at Manchester and Glasgow, the deaths of boys under five reduce the numbers living at five, to 67,896 and 66,870 respectively, which are little more than two thirds of the number born. After the age of five till we reach 35, the figures for Portsmouth are a little more favourable than in any of the other columns. At 25 years when there are 69,593 men remaining of the 100,000 born in Portsmouth there are only 59,645 in Manchester, a difference of 9948, and at Glasgow 57,288, a difference of 12,305, which represents so many lives lost before the time they would be of most use to the community. At age 65, when it may be considered that the greater part of a man's vigour has been utilized, there remain in Portsmouth 32,450 of the 100,000 or not quite a third, at Brighton there are five more 32,455, but at Glasgow the number has been reduced to 21,211 a little over a fifth, and at Manchester but 18,067 remain.

The table for females shows remarkably favourable figures for Brighton, which no doubt is partially accounted for by the reasons already mentioned and the select character of a large part of its population. The figures for females in Portsmouth are less favourable than for England and Wales as a whole, which may be occasioned perhaps, by the number of women who work at stay factories, which is a very large industry in the town. The figures for Manchester and Glasgow are more favourable than those for the males, but they exhibit the great risks to life which are run, owing to the vital conditions existing in these towns.

From Table 3 at the end of the appendix, it will be seen that the 100,000 males born, are reduced to one half during their 51st year, the same number of females during their 54th year. By comparison with other Life Tables, it is found that

in England and Wales the number is reduced to one half in their 51st year for males, and 56th year for females, in Brighton in the 51st year for males, and the 59th year for females, in Manchester in the 38th year for males and the 44th year for females, and at Glasgow in the 38th year for males, and the 40th year for females.

For the purpose of more easy comparison, the following table has been prepared.

TABLE VI.

The proportions per cent. which the Expectations of Life in
Portsmouth bear to those in England and Wales.

Expectations of Life in Portsmouth 1881-90, compared with those in England and Wales, taken as 100.						
AGE	MALES			FEMALES		
	1838-54	1871-80	1881-90	1838-54	1871-80	1881-90
0	109	106	100.0	110	103	97.5
5	106	104	100.2	106	101	97.3
15	102	102	99.6	106	102	99.6
25	100	101	99.5	103	101	99.5
45	97	100	100.0	100	100	100.4
65	96	98	100.3	96	97	98.4

The table shows that the expectation of life in Portsmouth during 1881-90 is considerably better than in England and Wales during the periods 1838-54 and 1871-80, and practically the same as in the country as a whole during 1881-90.

TABLE VII.

The Expectations of Life 1881-90, in England and Wales, in Portsmouth, and in Manchester, divided into six Life Periods.

Life Period	Age Limits of Period	Length of Period in years	MALES			FEMALES		
			England & Wales	Portsmouth	Manchester	England & Wales	Portsmouth	Manchester
The whole of Life	All Ages	—	43.66	43.68	34.71	47.18	46.02	38.44
Infancy	0—5	5	4.02	4.03	3.76	4.16	4.18	3.94
School Age	5—15	10	7.35	7.39	6.50	7.68	7.57	6.86
Adolescence	15—25	20	7.12	7.14	6.15	7.44	7.24	6.51
Maturity	25—45	20	12.72	12.73	10.53	13.38	14.24	11.39
Decline	45—65	20	9.13	9.03	6.30	10.18	9.33	7.55
	65 and upwards	—	3.32	3.36	1.47	4.34	3.47	2.19

This table again shows a striking similarity between the figures relating to England and Wales in 1881-90, and those of Portsmouth during the same time, there not being one year difference in any of the life periods either male or female. Whilst the expectations of life of males are slightly more in Portsmouth than in the entire country, the expectations of life of the females in Portsmouth are rather less than those of the country as a whole.

It also exhibits the serious loss of life in a manufacturing town, taking Manchester as an example, during maturity, the most valuable part of existence, the expectation of life for males in Manchester of the ages 25 to 45 being two years less than in Portsmouth, and of the ages 45 to 65 being almost three years less.

From a general survey of all the tables of this appendix it will be seen that the figures relating to Portsmouth are very similar to those relating to England and Wales as a whole, and that the expectation of life is greater in Portsmouth than in the large manufacturing towns mentioned. The figures relating to England and Wales are obtained from the whole country, healthy and unhealthy, a large proportion of the population living in large manufacturing towns, and an ever diminishing number living in healthy rural districts; so that whilst it is satisfactory to know that the conditions in which the inhabitants of Portsmouth live are as favourable as those in which the population of England and Wales find themselves, yet there is no doubt but that the sanitary condition of Portsmouth has improved and is improving, making it certain that the next life table, when it is made, will give more favourable figures than the present.

PORTSMOUTH LIFE TABLE.

Based on the Mortality in Ten Years, 1881-90

Table 1.—Males.

Age <i>x</i>	Dying in each year of Age <i>d_x</i>	Born, and surviving at each age <i>l_x</i>	Population, or years of life lived, in each year of age <i>P_x</i>	Population, or years of life lived, in and above each year of age <i>Q_x</i>	Expectation of life at each age $E_x = \left(\frac{Q_x}{l_x} \right)$
0	8057	50,810	45,790	2,173,382	43.68
1	2409	42,753	41,549	2,173,382	50.84
2	1043	40,344	39,822	2,131,833	52.84
3	679	39,301	38,962	2,092,011	53.23
4	509	38,622	38,367	2,053,049	53.16
5	143	38,113	38,042	2,014,682	52.86
6	125	37,970	37,907	1,976,640	52.06
7	112	37,845	37,789	1,938,733	51.23
8	104	37,773	37,681	1,900,944	50.38
9	97	37,629	37,581	1,863,263	49.52
10	96	37,532	37,484	1,825,682	48.64
11	95	37,436	37,388	1,788,198	47.77
12	99	37,341	37,292	1,750,810	46.89
13	102	37,242	37,191	1,713,518	46.01
14	110	37,140	37,085	1,676,327	45.14
15	117	37,030	36,971	1,639,242	44.27
16	126	36,913	36,850	1,602,271	43.40
17	137	36,787	36,719	1,565,421	42.55
18	148	36,650	36,576	1,528,702	41.71
19	160	36,502	36,422	1,492,126	40.88
20	172	36,242	36,256	1,455,704	40.06
21	185	36,170	36,077	1,419,448	39.24
22	196	35,985	35,887	1,383,371	38.44
23	208	35,789	35,685	1,347,484	37.65
24	221	35,581	35,471	1,311,799	36.87
25	231	35,360	35,244	1,276,328	36.10
26	243	35,129	35,008	1,241,084	35.33
27	254	34,886	34,759	1,206,076	34.57
28	265	34,632	34,499	1,171,317	33.82
29	276	34,367	34,229	1,136,818	33.08
30	286	30,091	33,948	1,102,589	32.34
31	297	33,805	33,657	1,068,641	31.61
32	208	33,508	33,354	1,034,984	30.89
33	319	33,200	33,040	1,001,630	30.17
34	332	32,881	32,715	963,590	29.46
35	343	32,549	32,378	935,875	28.75
36	356	32,206	32,028	903,497	28.05
37	369	31,850	31,665	871,469	27.36
38	381	31,481	31,291	839,804	26.68
39	395	31,100	30,902	808,513	26.00
40	408	30,705	30,501	777,611	25.33
41	421	30,297	30,087	747,110	24.66
42	436	29,876	29,658	717,023	24.00
43	449	29,440	29,215	687,365	23.35
44	463	28,991	28,760	658,150	22.70
45	477	28,528	28,287	629,390	22.06
46	491	28,051	27,806	601,101	21.43
47	506	27,560	27,307	573,295	20.80
48	519	27,054	26,794	545,988	20.18
49	532	26,535	26,269	519,194	19.57

PORTSMOUTH LIFE TABLE.

Based on the Mortality in Ten Years, 1881-90

Table 1.—Males.

Age x	Dying in each year of Age d_x	Born, and surviving at each age l_x	Population, or years of life lived, in each year of age P_{Ax}	Population, or years of life lived, in and above each year of age Q_x	Expectation of life at each age $E_x = \left(\frac{Q_x}{l_x} \right)$
50	546	26,003	25,730	492,925	18.96
51	558	25,457	25,178	467,195	18.35
52	570	24,899	24,614	442,017	17.75
53	583	24,329	24,038	417,403	17.16
54	494	23,746	23,449	393,365	16.57
55	606	23,152	22,849	369,916	15.98
56	617	22,546	22,237	347,067	15.39
57	629	21,929	21,615	324,830	14.81
58	642	21,300	20,979	303,215	14.24
59	655	20,658	20,330	282,236	13.66
60	670	20,003	19,668	261,906	13.09
61	684	19,333	18,991	242,238	12.53
62	702	18,649	18,298	223,247	11.97
63	719	17,947	17,588	204,949	11.42
64	740	17,228	16,853	187,361	10.88
65	761	16,488	16,107	170,503	10.34
66	783	15,277	15,336	154,396	9.82
67	805	14,944	14,541	139,060	9.31
68	826	14,139	13,726	124,519	8.81
69	845	13,313	12,891	110,793	8.32
70	863	12,468	12,036	97,902	7.85
71	876	11,605	11,167	85,866	7.40
72	884	10,729	10,287	74,699	6.96
73	887	9,845	9,402	64,412	6.54
74	883	8,958	8,516	55,010	6.14
75	870	8,075	7,640	46,494	5.76
76	849	7,205	6,781	38,854	5.36
77	819	6,356	5,946	32,073	5.05
78	778	5,537	5,148	26,127	4.72
79	730	4,759	4,394	20,979	4.41
80	673	4,029	3,693	16,585	4.12
81	610	3,356	3,051	12,892	3.84
82	542	2,746	2,475	9,841	3.58
83	472	2,204	1,968	7,366	3.34
84	402	1,372	1,531	5,398	3.12
85	333	1,330	1,164	3,867	2.91
86	269	997	863	2,703	2.71
87	211	728	622	1,840	2.53
88	162	517	436	1,218	2.36
89	118	355	296	782	2.20
90	85	237	194	486	2.05
91	58	152	123	292	1.92
92	38	94	75	169	1.29
93	24	56	44	94	1.67
94	15	32	25	50	1.56
95	8	17	13	25	1.45
96	5	9	7	12	1.34
97	2	4	3	5	1.21
98	1	2	1	2	1.03
99	1	1	1	1	0.71

PORTSMOUTH LIFE TABLE.

Based on the Mortality in Ten Years, 1881-90

Table 2.—Females.

Age x	Dying in each year of Age d_x	Born, and surviving at each age l_x	Population, or years of life lived, in each year of age P_x	Population, or years of life lived, in and above each year of age Q_x	Expectation of life at each age $E_x = \left(\frac{Q_x}{l_x} \right)$
0	6,375	49,190	45,301	2,263,733	46.02
1	2,271	42,815	41,680	2,218,432	51.81
2	941	40,544	40,073	2,176,752	53.69
3	609	39,603	39,299	2,136,679	53.95
4	476	38,994	38,756	2,097,380	53.79
5	381	38,518	38,327	2,058,624	53.45
6	321	38,137	37,977	2,020,297	52.97
7	271	37,816	37,680	1,982,320	52.42
8	232	37,545	37,429	1,944,640	51.79
9	200	37,313	37,213	1,907,211	51.11
10	175	37,193	37,026	1,869,998	50.39
11	156	36,938	36,860	1,832,972	49.62
12	144	36,782	36,710	1,796,112	48.83
13	135	36,638	36,570	1,759,402	48.02
14	132	36,503	36,437	1,722,832	47.20
15	131	36,371	36,306	1,686,395	46.37
16	133	36,240	36,175	1,650,089	45.53
17	140	36,107	36,037	1,613,916	44.70
18	146	35,967	35,894	1,577,879	43.87
19	156	35,821	35,743	1,541,985	43.05
20	167	35,665	35,582	1,506,242	42.23
21	176	35,498	35,410	1,470,660	41.43
22	188	35,322	35,228	1,435,250	40.63
23	199	35,134	35,034	1,400,022	39.85
24	209	34,935	34,821	1,364,988	39.07
25	219	34,726	34,616	1,330,157	38.30
26	230	34,507	34,392	1,295,541	37.54
27	239	34,277	34,158	1,261,149	36.79
28	247	34,038	33,914	1,226,991	36.05
29	256	33,791	33,663	1,193,077	35.31
30	264	33,535	33,403	1,159,414	34.57
31	273	33,271	33,135	1,126,011	33.84
32	281	32,998	32,857	1,092,876	33.12
33	289	32,717	32,573	1,060,019	32.40
34	299	32,428	32,278	1,027,446	31.68
35	308	32,129	31,975	995,168	30.97
36	318	31,821	31,662	963,193	30.27
37	328	31,503	31,339	931,531	29.57
38	338	31,175	31,006	900,192	28.88
39	348	30,837	30,663	869,186	28.19
40	357	30,489	30,311	838,523	27.50
41	367	30,132	29,948	808,212	26.82
42	376	29,765	29,577	778,264	26.15
43	383	29,389	29,198	748,687	25.48
44	391	29,006	28,810	719,489	24.80
45	398	28,615	28,416	690,679	24.14
46	403	28,217	28,016	662,263	23.47
47	410	27,814	27,609	634,247	22.80
48	415	27,404	27,916	606,638	22.14
49	421	26,989	26,779	529,442	21.47

PORTSMOUTH LIFE TABLE.

Based on the Mortality in Ten Years, 1881-90

Table 2.—Females.

Age <i>x</i>	Dying in each year of Age <i>d_x</i>	Born, and surviving at each age <i>l_x</i>	Population, or years of life lived, in each year of age <i>P_x</i>	Population, or years of life lived, in and above each year of age <i>Q_x</i>	Expectation of life at each age $E_x = \left(\frac{Q_x}{l_x} \right)$
50	427	26,568	26,354	552,663	20.80
51	434	26,141	25,924	526,309	20.13
52	441	25,707	25,487	500,385	19.46
53	449	25,266	25,041	474,898	18.80
54	459	24,817	24,588	449,857	18.13
55	471	24,358	24,122	425,269	17.46
56	485	23,887	23,645	401,147	16.79
57	499	23,402	23,152	377,502	16.13
58	518	22,903	22,644	354,350	15.47
59	538	22,385	22,116	331,706	14.82
60	561	21,847	21,567	309,590	14.17
61	587	21,286	20,992	288,023	13.53
62	615	20,699	20,392	267,031	12.90
63	647	20,084	19,760	246,639	12.28
64	672	19,437	19,096	226,879	11.67
65	717	18,755	18,397	207,783	11.08
66	755	18,038	17,660	189,386	10.50
67	794	17,283	16,886	171,726	9.94
68	832	16,489	16,073	154,840	9.39
69	869	15,657	15,223	138,767	8.86
70	904	14,788	14,066	123,544	8.35
71	935	13,884	13,416	109,208	7.87
72	960	12,949	12,469	95,792	7.40
73	978	11,989	11,508	83,323	6.95
74	989	11,011	10,517	71,823	6.52
75	989	10,022	9,527	61,306	6.12
76	978	9,033	8,544	51,779	5.73
77	956	8,055	7,577	43,235	5.37
78	922	7,099	6,638	35,658	5.02
79	877	6,177	5,739	29,020	4.70
80	821	5,300	4,889	23,281	4.39
81	755	4,479	4,102	18,392	4.11
82	682	3,724	3,383	14,290	3.84
83	604	3,042	2,740	10,907	3.59
84	524	2,438	2,176	8,167	3.35
85	445	1,914	1,691	5,991	3.13
86	367	1,469	1,286	4,300	2.93
87	297	1,102	954	3,014	2.74
88	232	805	689	2,060	2.56
89	177	573	484	1,371	2.39
90	131	396	331	887	2.24
91	93	265	218	556	2.10
92	64	172	140	338	1.97
93	43	108	86	198	1.84
94	27	65	51	112	1.73
95	17	38	29	61	1.62
96	10	21	16	32	1.52
97	5	11	8	15	1.42
98	3	6	4	7	1.32
99	2	3	2	3	1.19
100	0	1	1	1	1.02
101	1	1	0	0	0.70

Note. The figures at the higher ages in columns 2, 3, and 4, were calculated to two or more places of decimals. For convenience the nearest whole numbers are printed, but the expectations of life in column 5 are derived from the more exact values.

PORTSMOUTH LIFE TABLE

Based on the Mortality in Ten Years, 1881-90.

Table 3.—Males and Females.

Age x	Chance of living one year from each age. p_x		Of 100,000 Males born the number surviv- ing at each age	Of 100,000 Females born the number surviving at each age	Of 100,000 of both Sexes (50,810 Males, 49,190 Females) born	
	Males	Females			The number surviving at each age l_x	Population of years of life lived in and above each year $\sum q_x$
0	.84142	.87041	100,000	100,000	100,000	4,482,905
1	.94365	.94695	84,142	87,041	85,568	4,391,814
2	.97417	.97679	79,401	82,423	80,888	4,308,585
3	.98270	.98402	77,349	80,510	78,904	4,228,690
4	.98684	.98780	76,012	79,272	77,616	4,150,429
5	.99625	.99010	75,011	78,305	76,631	4,073,306
6	.99670	.99159	74,730	77,530	76,107	3,996,917
7	.99703	.99282	74,483	76,878	75,661	3,921,053
8	.99726	.99383	74,262	76,326	75,278	3,845,584
9	.99740	.99405	74,059	75,855	74,942	3,770,474
10	.99746	.99528	73,866	75,450	74,645	3,695,680
11	.99745	.99576	73,679	75,094	74,374	3,621,170
12	.99737	.99609	73,490	74,776	74,123	3,546,922
13	.99725	.99630	73,297	74,484	73,880	3,472,920
14	.99706	.99640	73,095	74,208	73,643	3,399,159
15	.99683	.99640	72,880	73,941	73,401	3,325,637
16	.99657	.99631	72,649	73,674	73,153	3,252,360
17	.99628	.99614	72,400	73,403	72,894	3,179,337
18	.99596	.99592	72,131	73,120	72,617	3,106,581
19	.99562	.99565	71,839	72,821	72,323	3,034,111
20	.99527	.99534	71,524	72,504	72,007	2,961,946
21	.99491	.99502	71,186	72,166	71,668	2,890,108
22	.99454	.99469	70,823	71,807	71,307	2,818,621
23	.99418	.99435	70,436	71,425	70,923	2,747,506
24	.99381	.99401	70,026	71,022	70,516	2,676,787
25	.99345	.99368	69,593	70,596	70,086	2,606,485
26	.99308	.99335	69,137	70,150	69,636	2,536,625
27	.99272	.99303	68,659	69,683	69,163	2,467,225
28	.99235	.99273	68,159	69,198	68,670	2,398,308
29	.99199	.99242	67,638	68,695	68,158	2,329,895
30	.99161	.99212	67,095	68,174	67,626	2,262,003
31	.99122	.99181	66,532	67,637	67,076	2,194,652
32	.99081	.99149	65,948	67,083	66,506	2,127,860
33	.99038	.99115	65,342	66,512	65,917	2,061,649
34	.98993	.99079	64,713	65,923	65,309	1,996,036
35	.98945	.99041	64,061	65,316	64,678	1,931,043
36	.98895	.99001	63,385	64,690	64,027	1,866,690
37	.98842	.98959	62,684	64,044	63,353	1,803,000
38	.98788	.98916	61,959	63,377	62,656	1,739,996
39	.98731	.98872	61,207	62,690	61,937	1,677,699
40	.98671	.98827	60,431	61,983	61,194	1,616,134
41	.98609	.98782	59,628	61,256	60,429	1,555,322
42	.98543	.98738	58,798	60,510	59,641	1,495,287
43	.98475	.98695	57,942	59,747	58,829	1,436,052
44	.98403	.98652	57,058	58,967	57,997	1,377,639
45	.98327	.98611	56,147	58,172	57,143	1,320,069
46	.98248	.98569	55,207	57,364	56,268	1,263,364
47	.98166	.98527	54,240	56,543	55,374	1,207,542
48	.98081	.98484	53,246	55,710	54,458	1,152,626
49	.97993	.98440	52,224	54,866	53,524	1,098,636
50	.97902	.98393	51,176	54,010	52,571	1,045,588
51	.97807	.98342	50,103	53,142	51,598	993,504

PORTSMOUTH LIFE TABLE

Based on the Mortality in Ten Years, 1881-90.

Table 3.—Males and Females.

Age <i>x</i>	Chance of living one year from each age. <i>p_x</i>		Of 100,000 Males born the number surviv- ing at each age	Of 100,000 Females born the number surviving at each age	Of 100,000 of both Sexes (50,810 Males, 49,190 Females) born	
	Males	Females			The number surviving at each age <i>l_x</i>	Population of years of life lived in and above each year <i>L_x</i>
52	.97709	.98285	49,004	52,261	50,606	942,402
53	.97606	.98222	47,881	51,365	49,595	892,301
54	.97498	.98149	46,735	50,451	48,563	843,222
55	.97384	.98067	45,566	49,518	47,510	795,185
56	.97261	.97972	44,374	48,560	46,433	748,214
57	.97130	.97864	43,159	47,576	45,331	702,332
58	.96986	.97740	41,920	46,560	44,023	657,566
59	.96829	.97597	40,656	45,507	43,043	613,942
60	.96651	.97432	39,367	44,414	41,850	571,496
61	.96459	.97241	38,050	43,273	40,619	530,261
62	.96239	.97026	36,703	42,080	39,348	490,278
63	.95989	.96778	35,323	40,829	38,031	451,588
64	.95705	.96496	33,906	39,513	36,665	414,240
65	.95384	.96175	32,450	38,129	35,243	378,286
66	.95022	.95814	30,952	36,670	33,705	343,782
67	.94615	.95408	29,411	35,153	32,227	310,786
68	.94159	.94954	27,827	33,522	30,628	279,359
69	.93650	.94448	26,202	31,830	28,970	249,560
70	.93297	.93887	24,538	30,063	27,256	221,446
71	.92452	.93268	22,840	28,225	25,489	195,074
72	.91756	.92586	21,116	26,325	23,678	170,491
73	.90988	.91839	19,376	24,374	21,834	149,735
74	.90145	.91022	17,629	22,384	20,069	126,833
75	.89222	.90134	15,892	20,375	18,097	107,809
76	.88216	.89170	14,179	18,365	16,238	90,633
77	.87123	.88129	12,508	16,376	14,411	75,308
78	.85940	.87007	10,898	14,432	12,636	61,785
79	.84663	.85803	9,375	12,557	10,936	49,999
80	.83292	.84515	7,929	10,774	9,329	39,866
81	.81823	.83142	6,604	9,106	7,835	31,284
82	.80255	.81683	5,404	7,571	6,470	24,131
83	.78589	.80137	4,337	6,184	5,246	18,273
84	.76824	.78504	3,408	4,956	4,170	13,565
85	.74961	.76786	2,618	3,890	3,244	9,858
86	.73003	.74984	1,963	2,987	2,466	7,003
87	.70951	.73099	1,433	2,240	1,830	4,855
88	.68809	.71135	1,017	1,637	1,322	3,279
89	.66582	.69094	700	1,165	928	2,154
90	.64276	.66981	466	805	633	1,373
91	.61896	.64801	299	539	417	848
92	.59450	.62559	185	349	266	507
93	.56947	.60260	110	219	163	292
94	.54395	.57912	63	132	97	162
95	.51805	.55523	34	76	55	86
96	.49186	.53099	18	42	30	44
97	.46550	.50649	9	22	15	21
98	.43908	.48183	4	11	8	10
99	.41273	.45709	2	5	4	4
100		.43236	1	3	1	1
101		.40772	0	1	0	0
102			0	0	0	0

