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REPORT
ON THE
SANITARY CONDITION

OF THE
County Borough

OF
Birkenhead,
FOR THE YEAR 1893.

BY
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AND
MEDICAL OFFICER TO THE SCHOOL BOARD.

BIRKENHEAD:
WILSON & JONES, PRINTERS AND STATIONERS, 70 ARGYLE STREET.

1894.

HEALTH COMMITTEE
OF THE
BIRKENHEAD TOWN COUNCIL,
1893-94.

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*MR. ALDERMAN THOMAS SHAW, DEPUTY-CHAIRMAN.
*MR. ALDERMAN JOSEPH PERRIN.
*MR. ALDERMAN JAMES WOODCOCK.
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*MR. COUNCILLOR HESLOP LAIRD PEARSON.
MR. COUNCILLOR EDWARD PAYSON SMITH.
MR. COUNCILLOR GODFREY ALLAN SOLLEY.
AND
HIS WORSHIP THE MAYOR.

Day of Meeting, Tuesday, at 4-30 p.m.

*Members of the Health Sub-Committee are marked thus.

OFFICIALS
OF THE
MEDICAL OFFICER OF HEALTH'S DEPARTMENT,
1893.

.....

*Medical Officer of Health and Physician Superintendent
of the Fever Hospital.*

R. SYDNEY MARSDEN, D. SC., M.B., MAST. SURG., DIP. PUB. HLTH.,
F.R.S. AND F.R.P.S., EDIN., F. INST. CHEM.

Borough Analyst.

J. CARTER BELL, ASSOC. ROY. SCH. MINES, F. INST. CHEM.,
F.C.S., &c.

Chief Inspector and Inspector under the Food and Drugs Act.

*WILLIAM DAWSON, ASSOC. SAN. INST.

Matron of the Fever Hospital.

MISS EMILY YEOMANS.

Chief Clerk.

EDWARD H. CARTER.

Junior Clerks.

WILLIAM RILEY. JOSEPH BENNETT.

Inspector of Meat, Fish, and Slaughter Houses.

ROBERT WAGSTAFFE.

District Sanitary Inspectors.

*WILLIAM FITZGERALD. *JOHN LEE. *H. T. TAYLOR.

Inspector of Workshops and Bakehouses.

HENRY MOUNTFIELD.

*Inspector of Common Lodging Houses and
Houses let in Lodgings.*

WILLIAM SCOTT.

Disinfecting Inspector.

ISAAC TAYLOR.

Inspector of Back Passages and Ashpits.

ALBERT YOUNG.

Those marked thus * have passed the examination of the Sanitary Institute.

CONTENTS.

	PAGE.		PAGE.
Area and Population of Birkenhead	5	Fever Hospital, Proposals for a New	65
Area in Acres and Density of Population	6	,, the New, description of	68
Acts of Parliament.—		Illegitimacy Statistics	17
Factory and Workshops Acts ..	46	Inquests	36
Shop Hours Act, 1892 ..	47	Lodging Houses, Inspection of ..	42
Housing of the Labouring Classes Act	84	Marriages	19
Sale of Food and Drugs Act &c...	58	Meat, Seizure and Destruction of	
Ashpits	48	Unwholesome, 1893 ..	49
Bakehouses	58	,, Method of Seizure of ..	50
Baths, Public	60	,, Case, Important ..	52
Bidston Hill	73	Measles, Notification of ..	25
Births and Deaths in Birkenhead ..	11	Meteorological Results	19
Births and Death Rates do. ..	12	Milk-houses	59
Birth and Death Rates in 33 Great		Notification of Infectious Diseases..	32
Towns in England.. ..	12	,, of Measles	25
Borough, Rapid Growth of ..	6	,, of Phthisis	33
Bowling and Quoiting Ground ..	59	Open Spaces and Recreation Grounds	61
Cholera Precautions	30	Ordinary Sanitary Operations ..	43
Cholera Order, 1892	45	Overcrowding and Cellar Occupation	44
Death Causes, Classification of ..	11	Pauperism, Statistics of ..	18
Deaths, not Certified	37	Phthisis, Notification of ..	33
,, of Infants under One Year	16	Public Wash Houses	62
,, of Illegitimate Children ..	17	Rapid Growth of the Borough ..	6
,, Classified according to Localities	38	Relative Fatality of Zymotic Diseases	39
,, in Union Hospital and		Refuse Destructors	78
Workhouse	40	Sewer Ventilators in the Roads ..	29
,, Percentage of at Certain Ages		South End Destructor	81
to Total Deaths	16	Summary of Nuisances &c. ..	44
Description of those who died during 1893	41	Tabular Statements	15
Diseases, Constitutional, Local and		Tuberculous Meat	50
Developmental	34	Thurstaston Common, Visit to ..	60
Disinfecting House	72	Uninhabited Property in Borough..	10
Fever Hospital Statistics	62	Vaccination Statistics	18
,, ,, Mortality in	64	Workshops, Number of	46
,, ,, Charge for Maintenance in	65	Zymotic Diseases and Death Rates 23 & 39	

APPENDIX.

Statistical Tables I., II., III., IV., V., VI., & VII.

Sketch Map of Borough.

THE SANITARY CONDITION
OF THE
COUNTY BOROUGH OF BIRKENHEAD
DURING 1893.

*Report of the Medical Officer of Health to the
Health Committee.*

Area.--The County Borough of Birkenhead has an Area of 3849½ acres, or a little more than six square miles.

Population.--The population at midsummer, 1893, as estimated by the Registrar-General, was 103,817—an addition of 1779 persons to the estimated population at midsummer, 1892.

This number is estimated by the average rate of increase which took place during the ten years between the Census of 1881 and that of 1891, and represents the excess of births over deaths, or *natural* increase during the year, added to the estimated excess of immigrants to the town over emigrants from it.

During the year 1893 the number of births registered in the Borough was 3,431, and the number of deaths 2,132, showing an excess of births over deaths of 1,299, the *natural* increase during the year was therefore 1,299, which thus accounts for 73 per cent. of the estimated total increase.

The population as shown by the Census taken on April 6th, 1891, was 99,857 consisting of 48,354 males and 51,503 females.

In the preliminary Census returns the population was given as 99,249, a difference of 608 less, and this population was taken as the basis for estimating the population at the middle of 1892, which was given in last year's report, viz., 101,264. Taking into account however the actual size of the town as shown by the complete census return, the population of the Borough at midsummer, 1892, should have been given as 102,038.

The population of the several townships forming the Borough as given in the Census of 1891, and the estimated population at midsummer, 1893, are conveniently arranged in tabular form as follows:—

TOWNSHIPS	Popula- tion at Census 1891	Population at Midsummer 1893
Birkenhead	58287	60599
Cloughton	3510	3649
Tranmere	30680	31897
Oxton	4429	4604
Higher Bebington (part of)	2951	3068
Birkenhead Borough	99,857	103,817

Area in acres.—Density of Population.—The next table shows the area in statute acres of the townships forming the Borough, and the proportion of persons per acre in each. It will be seen that there is a great difference in the density of population of Birkenhead and Tranmere, and yet a greater difference in this respect between either of these townships and the semi-rural townships of Cloughton, Oxton and Bebington.

TOWNSHIPS	Area in Acres	Persons per Acre
Birkenhead	1279 $\frac{3}{4}$	47·34
Cloughton.....	438 $\frac{3}{4}$	8·31
Tranmere	1071 $\frac{1}{4}$	29·78
Oxton	814	5·65
Higher Bebington (part of)	245 $\frac{3}{4}$	12·47
Birkenhead Borough	3849$\frac{1}{2}$	26·97

Rapid Growth of the Borough.—There are few facts which show the condition of a place better than the degree of increase of its population. It may therefore not be uninteresting at this point, to note the history of the the rapid growth of Birkenhead during the present century, a growth almost unprecedented in this country. For although a place of considerable antiquity, its history dating from the year 1150, when a priory was founded here in honour of St. Mary and St. James by the third Baron of Dunham Massey, Birkenhead was little more than a fishing village until about

sixty years ago. At this time, *i.e.* in the year 1833, an Act was obtained for paving, lighting, watching, cleansing and improving the town, and for regulating the police and establishing a market.

It was by this Act that the Improvement Commissioners were originally constituted, and at that time included the Mayor, Bailiffs and four Aldermen of Liverpool, and sixty residents of Birkenhead to be nominated for life.*

The total area of the Commissioners district was 1,684 acres including 365 acres of water space, *viz.* :—Birkenhead 1,248 acres, and Claughton-cum-Grange 436 acres.

In the year 1801 the Chapelry only numbered 110 inhabitants, in 1811 the population had decreased to 105, in 1821 they had increased to 200, and by 1831 they had further increased to 2,569.

After the appointment of the Commissioners however, and the consequent better management and sanitary improvement of the place, it began to rise in importance and increased in population at a very rapid rate as the following table shows.

Year	Population	Number of Houses	Rateable Value
1841	8227	1466	£ 44000
1851	25000	4148	114301
1861	37796	5239	150827
1871	45418	7511	219011

The last figures show the size of the Commissioners' district in 1871. Shortly after this period, *viz.*, in the year 1877 a Charter of Incorporation was granted to Birkenhead, and the Municipal Borough thus incorporated made co-terminate with the Parliamentary Borough of Birkenhead which was constituted in 1861.

Its limits include the extra-parochial Chapelry of Birkenhead, the several townships of Claughton-cum-Grange, Tranmere and Oxtan, and so much of the township of Higher Bebington as lies to the Eastward of the road leading from Higher Tranmere to Lower Bebington.

To compare the size of Birkenhead Borough as at present

*This constitution was modified subsequently in 1838, 1843, and 1858.

constituted with its size at the beginning of the century, and its subsequent growth, we require the population of the different parishes forming the Borough at the different census periods. Fortunately these are known, with the exception of the part of Higher Bebington now included in the Borough, and this can be easily calculated.

The population and acreage of Higher Bebington are known, and the acreage of the incorporated portion is known, so that by a simple calculation a fair *approximation* to the proportionate population of the part of Higher Bebington required can be easily obtained.

This has been worked out for the different periods up to 1851. After that time, the Parliamentary Borough having been constituted, the census returns for 1861 and subsequently give us the exact numbers.

The following table therefore shows at a glance the steady and rapid growth of the Borough since 1801.

Parish	Acreage	Population									
		1801	1811	1821	1831	1841	1851	1861	1871	1881	1891
Birkenhead	1279 $\frac{3}{4}$	110	105	200	2569	8223	24285	36212	42981	51610	58287
Claughton-cum-Grange	438 $\frac{3}{4}$	67	88	119	224	240	714	1584	2437	2934	3510
Tranmere	1071 $\frac{1}{4}$	353	474	825	1168	2554	6519	9918	16143	23987	30680
Oxton	814	137	128	165	234	546	2007	2670	2610	3312	4429
Higher Bebington .. (part of in Borough)	246	40	53	60	76	435	750	1265	1800	2168	2951
Birkenhead Borough ..	3849	707	849	1369	4271	11998	34275	51649	65971	84006	99857

Further particulars regarding the Borough and the different constituent Townships are given in the following tables:—

CENSUS 1851								
Parish	Acreage	Houses			Population			Rateable value
		Inhabited	Uninhabited	Building	M	F	Total	
Birkenhead	1279 $\frac{3}{4}$	3228	298	82	11673	12612	24285	£ 89125
Claughton	438 $\frac{3}{4}$	111	8	13	327	387	714	5008
Tranmere	1071 $\frac{1}{4}$	1187	78	54	2914	3605	6519	..
Oxton	814	357	17	15	905	1102	2007	..
Bebington (part of) ..	246	120	..	..	..	..	750	..
Birkenhead Borough	3849	5003	....	....	..	..	34275	....

CENSUS 1861								
Parish	Acreage	Houses			Population			Rateable value
		Inhabited	Uninhabited	Building	M	F	Total	
Birkenhead	1279½	4669	346	111	18397	17815	36212	£ 137727
Cloughton	438½	216	7	1	556	1028	1584	13100
Tranmere	1071½	1659	119	24	4745	5173	9918	..
Oxton	814	452	15	8	1103	1567	2670	..
Bebington (part of)..	246	193	9	8	462	803	1265	..
Birkenhead Borough	3849	7189	496	152	25263	26386	51649	....

CENSUS 1871								
Parish	Acreage	Houses			Population			Rateable value
		Inhabited	Uninhabited	Building	M	F	Total	
Birkenhead	1279½	6416	875	30	21431	21550	42981	£ 204272
Cloughton	438½	345	17	1	793	1644	2437	24739
Tranmere	1071½	2716	319	28	7711	8432	16143	..
Oxton	814	486	24	8	1083	1527	2610	..
Bebington (part of)..	246	280	12	..	640	1160	1800	..
Birkenhead Borough	3849	10243	1247	67	31658	34313	65971	....

CENSUS 1881								
Parish	Acreage	Houses			Population			Rateable value
		Inhabited	Uninhabited	Building	M	F	Total	
Birkenhead	1279½	7676	946	130	26723	24887	51610	£ 233456
Cloughton	438½	426	38	6	1069	1865	2934	28839
Tranmere	1071½	4264	610	155	11261	12726	23987	93296
Oxton	814	541	38	15	1219	2093	3312	28743
Bebington (part of)..	246	325	49	7	902	1261	2163	19243
Birkenhead Borough	3849	13232	1681	313	41174	42832	84006	403577

CENSUS 1891								
Parish	Acreage	Houses			Population			Rateable value
		Inhabited	Uninhabited	Building	M	F	Total	
Birkenhead	1279½	10120	1017	1	29444	28843	58287	£ 264613
Cloughton	438½	603	42	..	1382	2128	3510	28715
Tranmere	1071½	5650	403	15	14536	16144	30680	103808
Oxton	814	718	30	7	1527	2902	4429	39425
Bebington (part of)..	246	404	53	..	1465	1486	2951	17820
Birkenhead Borough	3849	17495	1545	23	48354	51503	99857	454381

I am indebted to the Chief Constable for the particulars contained in the following table showing the amount of uninhabited property in the Borough from September 30th, 1891, to September 30th, 1893.

Return of Uninhabited Property in the Borough.						
	District.	Private Houses	Shops	Cottages	Dock Cottages	Total
For the Half-year ending 30th September, 1891.	Birkenhead	66	136	461	..	663
	Claughton and Oxton..	42	7	37	109	195
	Tranmere & Bebington	105	26	125	..	256
	Total for Borough..	213	169	623	109	1114
For the Half-year ending 31st March, 1892.	Birkenhead	66	114	446	..	626
	Claughton and Oxton..	29	7	25	108	169
	Tranmere & Bebington	93	18	126	..	237
	Total for Borough..	188	139	597	108	1032
For the Half-year ending 30th September, 1892.	Birkenhead	49	98	374	..	521
	Claughton and Oxton..	38	6	24	103	171
	Tranmere & Bebington	77	15	104	..	196
	Total for Borough..	164	119	502	103	888
For the Half-year ending 31st March, 1893.	Birkenhead	49	75	341	..	465
	Claughton and Oxton..	30	6	21	103	160
	Tranmere & Bebington	99	12	102	..	213
	Total for Borough..	178	93	464	103	838
For the Half-year ending 30th September, 1893.	Birkenhead	47	81	370	..	498
	Claughton and Oxton..	29	3	22	98	152
	Tranmere & Bebington	96	19	115	..	230
	Total for Borough..	172	103	507	98	880

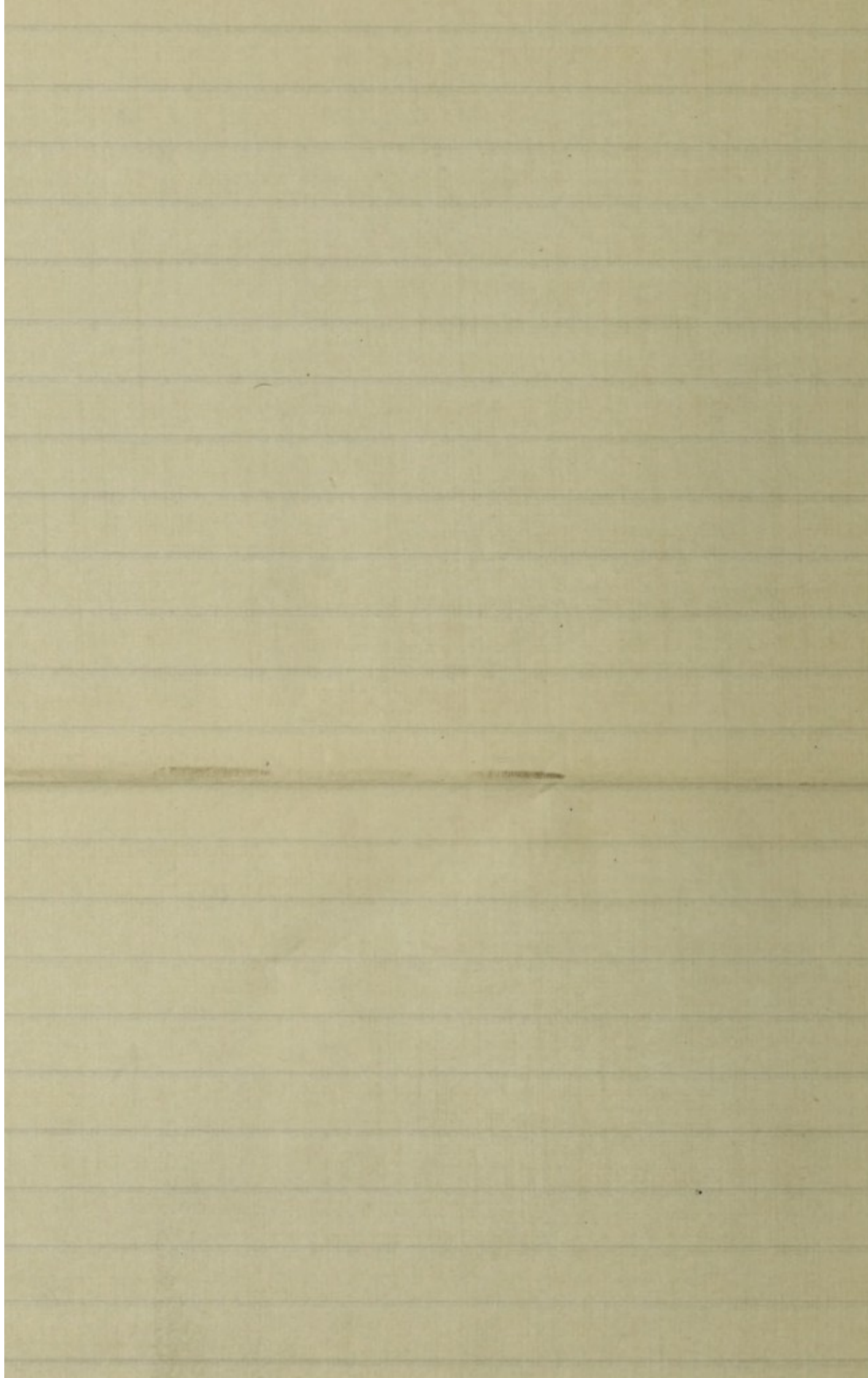
It will be seen from the above that with the exception of the half-year ending 31st March, 1893, the number of uninhabited houses in the Borough on the 30th September, 1893, was less than at any previous half-year during the last two years, and that in spite of the fact that 110 new houses were built during the year, and that in 1892 the number of new houses built was 100.

1893

Township	Estimated Population in Jan 1893		Births		Deaths	
	Person per acre	No. of	rate per 1000 per annum	No. of	rate per 1000 per annum	
Birkenhead	60599	47.34	2235	36.88	1277	21.07
Blayhton	3649	8.31	73	20.00	42	11.51
Tranmere	31897	29.76	984	30.84	571	17.90
Opton	4604	5.65	68	14.76	51	11.07
Higher Bebington (part)	3068	12.47	45	12.47	34	11.08
Union Hospital			26		157	
Birkenhead Bor.	103.817	26.97	3431	33.04	2132	20.53

Percentage of ^{Infant Deaths} Deaths at certain ages to Total Deaths

Birkenhead & Blayhton	36.16
Tranmere & Oston	29.90
Bebington	8.82
Union Hospital & Workhouse	7.00
Birkenhead Borough	31.75



Births and Deaths in Birkenhead—During the year 1893, the returns of the local registrars recorded 3,431 births and 2,132 deaths in the Borough of Birkenhead. The natural increase in the population in 1893 was therefore 1,299. Of the births 1,775 were males, and 1,656 were females; of the deaths 1,093 were males, and 1,039 were females.

The excess of births over deaths during the last four years is shown in the following table:—

	1890	1891	1892	1893
Births	3302	3286	3341	3431
Deaths	2084	2100	1967	2132
Excess of Births over Deaths	1218	1186	1374	1299

Further particulars as to the births and deaths in the Borough in 1893, that is to say, the number registered in each quarter of the year, and the number referred to each township, are given in the tables subjoined. The births and deaths in the premises belonging to the Union are entered separately.

BIRTHS	1st Qr.		2nd Qr.		3rd Qr.		4th Qr.		1893		Total
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Birkenhead	296	283	286	287	288	261	281	253	1151	1084	2235
Claughton	6	13	12	12	9	5	8	8	35	38	73
Tranmere	131	100	140	121	135	112	117	128	523	461	984
Oxton	7	13	9	8	7	11	5	8	28	40	68
Bebington	6	5	7	8	3	5	6	5	22	23	45
Union Hospital	5	..	2	4	4	2	5	4	16	10	26
Birkenhead Borough ..	451	414	456	440	446	396	423	406	1775	1656	3431

DEATHS	1st Qr.		2nd Qr.		3rd Qr.		4th Qr.		1893		Total
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Birkenhead	143	138	151	164	176	151	181	173	651	626	1277
Claughton	3	3	5	9	5	4	9	4	22	20	42
Tranmere	69	70	63	62	77	54	82	94	291	280	571
Oxton	8	6	3	7	5	5	9	8	25	26	51
Bebington	3	3	4	5	2	3	7	7	16	18	34
Union Hospital	32	23	16	11	20	14	20	21	88	69	157
Birkenhead Borough ..	258	243	242	258	285	231	308	307	1093	1039	2132

Birth-rates and Death-rates in Birkenhead.—The annual rates, per 1,000 living, of births and deaths, for the whole incorporated area and the townships within it, appear in the next table.

1893	Annual Rate per 1000 Living	
	Births	Deaths
Birkenhead	36·88	21·07
Claughton.....	20·00	11·51
Tranmere	30·84	17·90
Oxton	14·76	11·07
Bebington.....	12·47	11·08
Birkenhead Borough including B. and D. in Union premises) ..	33·04	20·53

The birth-rate in 1893 is lower than in 1892, and higher than the corrected birth-rate of recent years. The death-rate is lower than the corrected death-rate of recent years, and much lower than it was in 1891, namely 21·03.

The death-rate of Birkenhead township being over 3 per 1,000 living higher than the death-rate in Tranmere, and 9·5 per cent higher than that of Claughton, is in part accounted for by the much greater density of population in Birkenhead. The death-rates of Oxton and Bebington being low is in part due to these being practically rural districts, to the easy circumstances of most of the inhabitants, and the large proportion of domestic servants and unmarried adults therein.

Birth-rates and Death-rates in the 33 great towns in England.—In order that the birth-rates and death-rates of the Borough of Birkenhead in 1893 may be compared with the corresponding rates of the most populous cities and boroughs in England, the following table has been compiled from the Registrar-General's Quarterly Returns of Births, Deaths, and Causes of Death in London and the other great towns, 1893. The table gives the population of the 33 large towns and the number of persons per acre in each at midsummer, 1893. The birth-rates and death-rates are for the 52 weeks ending 30th December, 1893.

33 Great Towns—Population, Persons to Acre, Births, Deaths, &c., for the Year 1893.

CITIES AND BOROUGHS.	Estimated Population at Midsummer 1893	Persons to an Acre 1893	Births.	Deaths.	Annual Rate per 1000 Living			Deaths from							Deaths of Children under one year of age to 1000 Births.	Rate per cent. of Uncertified Deaths.	
					Births.	Deaths.	Principal Zymotic Diseases.	Small-Pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Fever.	Dysentery.			
																	Principal Zymotic Diseases.
33 Towns	10322429	34.8	328342	222178	31.9	21.6	3.18	32797	732	4559	3015	4423	4977	2493	12598	181	1.8
32 Provincial Towns..	6021455	....	195977	130642	32.5	21.8	3.30	19574	526	2898	1419	1158	2647	1774	9152	193	2.4
London ..	4305551	57.6	132965	91536	31.0	21.3	3.08	13223	206	1661	1596	3265	2330	719	3446	164	0.9
West Ham	227405	42.2	8083	4288	35.6	18.9	3.38	768	55	36	80	95	154	68	280	170	4.5
Croydon	103000	12.1	2852	1772	26.2	16.3	1.80	240	1	20	11	85	27	12	84	155	..
Brighton	117833	46.9	2981	2165	25.3	18.3	1.84	217	..	13	12	33	56	15	88	169	2.7
Portsmouth	167284	38.7	4769	3039	28.2	18.2	2.15	469	..	113	33	29	37	52	205	164	0.8
Plymouth	86772	59.1	2590	1839	29.9	21.2	2.75	240	..	85	22	14	46	10	63	169	0.5
Bristol	295146	48.6	6814	4249	30.4	18.9	1.65	371	17	100	39	98	40	27	165	179	1.0
Cardiff ..	142346	19.3	5121	2796	36.1	19.7	3.30	469	..	17	33	5	30	19	68	170	2.0
Swansea	93910	15.7	3285	1836	35.1	19.6	1.83	172	..	17	33	5	30	19	68	170	2.0
Wolverhampton..	84245	24.8	2902	1956	34.5	23.3	2.84	239	1	21	26	5	4	28	154	208	1.0
Birmingham	487897	39.5	15916	10693	32.7	22.0	3.04	1481	71	50	68	63	320	98	811	198	4.9
Norwich	104176	13.9	3210	2003	30.9	19.3	3.04	317	..	61	20	23	66	37	110	195	1.1
Leicester	180065	21.0	6006	3683	32.6	20.0	4.00	727	15	52	80	20	113	46	301	220	3.7
Nottingham	220551	22.1	6642	4061	30.2	18.5	2.60	577	4	25	81	15	59	69	324	170	1.7
Derby	97341	28.2	3123	1771	32.2	18.2	2.07	201	7	17	14	7	44	22	90	156	0.8
BIRKENHEAD	103817	27.0	3431	2132	33.0	20.5	2.90	310	1	15	12	16	68	27	171	197	1.1
Liverpool	510486	98.0	18322	13919	36.0	27.3	3.90	1987	9	273	231	63	279	269	863	211	3.7
Bolton	117278	48.8	3874	2821	33.1	24.1	4.65	544	7	166	34	12	77	36	212	199	0.8
Manchester	515567	40.3	17268	12801	33.6	24.9	3.96	1911	48	296	138	165	241	129	894	203	1.3
Salford	203427	39.3	7047	4886	34.7	24.1	4.13	839	22	92	41	58	99	100	427	210	3.3
Oldham	136469	28.9	3896	2800	28.6	21.0	2.50	338	65	29	16	18	55	26	129	187	1.1
Burnley	93517	23.3	3161	2039	33.9	21.9	3.75	354	6	27	51	14	34	28	194	223	1.4
Blackburn	124005	17.8	3822	2879	30.9	23.3	4.05	504	7	144	5	2	33	30	283	241	3.4
Preston	110225	27.4	3855	2899	35.1	26.4	4.01	661	..	179	27	14	47	61	343	269	3.8
Huddersfield	97532	8.3	2313	1673	23.8	17.2	1.24	121	..	23	25	3	13	12	45	141	2.9
Halifax	91918	24.4	2253	1591	24.6	17.4	1.71	157	35	5	3	23	32	13	46	173	4.3
Bradford	221611	20.6	6132	4632	27.7	21.0	3.42	757	115	69	70	23	110	49	321	197	1.5
Sheffield	382094	17.7	12349	8493	32.4	22.3	3.47	1322	20	341	31	62	166	110	592	206	1.0
Leds	383922	17.0	11591	7428	34.8	22.3	3.52	1172	5	176	90	61	128	90	622	191	3.5
Hull ..	208639	26.4	7125	4545	34.2	21.8	4.14	862	8	128	33	22	90	99	492	206	3.3
Sunderland	134394	44.3	4771	3022	35.6	22.5	3.36	451	5	17	26	11	24	131	237	188	0.9
Gateshead	90861	29.1	3309	1750	36.5	19.3	3.46	314	2	71	9	19	53	21	139	170	2.5
Newcastle-on-Tyne	197026	36.7	6624	4126	33.7	21.0	2.54	500	..	212	23	31	34	25	175	174	0.9
St. Helens..	74840	11.4	3029	1769	40.1	23.7	5.31	401	5	135	6	16	19	52	168	196	7.9

Out of the whole number of cities and boroughs seventeen had lower birth-rates and fourteen lower death-rates than Birkenhead. The birth-rate of the gross population of the great cities and boroughs was 1·1 per 1,000 living lower, and the death-rate 1·1 per 1,000 living higher, than the corresponding rates in Birkenhead. The population of Birkenhead it will be noted is greater than eight on the list of great towns, and the density of population (persons per acre) is greater than in fifteen towns in the list.

The birth-rate of the 33 towns in 1893, (31·9) is exceptionally low, being the same as last year, and lower than in 1891 (32·6), the average rate in the preceding nine years having been 33·9. The death-rate of the 33 towns in 1893 (21·6) is higher than last year (20·7) but in no way remarkable, the average rate in the preceding nine years having been 21·5.

I have thought it desirable this year to add the following table, shewing the population of Birkenhead as corrected from the complete census returns, and the number of Births and Deaths in past years since the incorporation of the Borough, and also the Birth and Death-rates deducible from these figures.

Year	Estimated Population at Midsummer	BIRTHS.		DEATHS.	
		Number of Births	Birth rate per 1000 per annum	Number of Deaths	Death rate per 1000 per annum
1878	77260	2932	37·94	1656	21·43
1879	79642	3112	39·07	1631	20·47
1880	82023	3048	37·16	1624	19·79
1881	84404	3059	36·24	1462	17·32
1882	85993	3156	36·70	1742	20·25
1883	87582	3145	35·90	1770	20·20
1884	89171	3459	38·79	1769	19·83
1885	90760	3224	35·52	1816	20·00
1886	92349	3218	34·84	1808	19·57
1887	93938	3161	33·64	2053	21·85
1888	95527	3082	32·26	1788	18·71
1889	97116	3207	33·02	1830	18·84
1890	98705	3302	33·45	2084	21·11
1891	100294	3286	32·76	2100	20·93
1892	102038	3341	32·74	1967	19·27
1893	103817	3431	33·04	2132	20·53

Tabular Statements.—In the appendix to this Report are tabular statements of the year's mortality, within the Borough of Birkenhead, classified according to the diseases, ages and localities, a weekly register of deaths, and of meteorological results, a monthly summary of deaths from all causes and zymotic diseases, with the rates per 1,000 per annum, together with a table specifying the occupation, or "description" of each person whose death was entered during the year, a return of deaths in the Birkenhead Union Hospital and Workhouse, and a sketch map of the town showing the boundaries of the wards, &c.

Table I. shows the deaths registered in the whole Borough during 1893, arranged with reference to the age at which death occurred in each case. They are disposed in four sub-tables—the deaths in the townships of Birkenhead and Claughton in the first, deaths in the Tranmere (exclusive of the Union premises) and Oxtan in the second, the deaths in the incorporated portion of Higher Bebington in the third, and the deaths in the Union Hospital and Workhouse in the fourth. The deaths of infants are entered up in three columns, those under one year, those of one year and under two years, and those turned two years and under five. Then follow the deaths of children and young persons, those turned five years and under twenty; and of adults, those turned twenty and under forty and those turned forty and under sixty. In the last two columns are the deaths of old people turned sixty and under eighty, and those of eighty and upwards. Reference to this table will show that, of the gross local mortality for 1893, the deaths of infants under one year of age accounted for 677, those over one year but under five years of age for 245, children and young persons for 123, adults 623, old people over sixty years of age 464. In the Townships of Birkenhead and Claughton, 477 deaths occurred among infants, 169 in children under five, 77 among children and young persons, 358 among adults, and 238 among old persons. In Tranmere and Oxtan the number of deaths of infants under one year was 186, of those under five and over two years was 73, of children and young persons 35, of adults 181, and of old people 147.

In Bebington Ward there were 3 deaths of infants under one year, 3 over one and under five years, 5 of children and young persons, 9 of adults and 14 of old people.

The relative proportion of deaths, in 1893, among the infants, children and young persons, adults and old people, to the whole number of deaths, in certain sub-divisions of the Borough, in the premises controlled by the Guardians of the Poor, and in the entire area incorporated, is readily shown in tabular form, thus:—

PERCENTAGE OF DEATHS AT CERTAIN AGES TO TOTAL DEATHS	Age below				60 and Upwards
	1	2-5	20	60	
Birkenhead and Claughton.....	36.16	12.81	5.83	27.14	18.04
Tranmere and Oxtou	29.90	11.73	5.62	29.09	23.63
Bebington	8.82	8.82	14.70	26.47	41.17
Union Hospital and Workhouse	7.00	0.00	3.82	47.77	41.40
Birkenhead Borough	31.75	11.49	5.76	29.22	21.76

In this respect the local mortality compares favourably with the mortality in most great cities and boroughs. The local mortality for 1893 also compares favourably with the local mortality during the decade 1881-90, and with 1891, but is slightly higher than in 1892. The percentages taken out for Bebington have little significance, the number of deaths being so small.

The proportion of deaths of infants under one year to the births registered.—The proportion in Birkenhead Borough in 1893 was equal to 197 per 1,000, which is a higher ratio than any yet recorded, and was probably influenced to some extent by the amount of destitution which was largely prevalent amongst the lower working classes during the year. In 1892 it was equal to 168 per 1,000, in 1891 the proportion was 148 per 1,000, in 1890 166, and in 1889 the proportion was 169. In the 33 great cities and boroughs in England and Wales, among which Birkenhead is classed, the proportion of deaths under one year to births registered, in 1893, was 164. It varied greatly in the different towns, ranging from 141 in Bristol and Huddersfield to 269 in Preston.

Table II. is the weekly register of deaths in the Borough of Birkenhead for 1893. The deaths are entered as in Table I. into four sub-tables, representing Birkenhead and Claughton, Tranmere

and Oxton, Bebington, and the Union Hospital and Workhouse. Table III. is a summary of the weekly register of deaths. Table IV. is a Weekly Condensed Register of meteorological results. Table V. is a Lunar Monthly Table of deaths from all causes and Zymotic Diseases, with the rates per 1,000 per annum. Table VI. a street register of deaths. And Table VII. a register giving the description of those who died.

Illegitimacy.—It seemed desirable to introduce into this report the statistics relating to illegitimacy, not merely on account of the bearing which such a subject has upon the social life of the community, but also with a view ultimately of showing to some extent the influence which illegitimacy exerts upon the “chances of life” of infants, as it is well known that the death-rate of illegitimate children is considerably greater than that of those born in wedlock.

The number of legitimate births varies with the marriage rate, and the marriage rate varies according to the state of trade, and frequently with a diminution of the marriage rate the illegitimacy rate is increased.

This however is sometimes more apparent than real, as an increased rate does not always mean an absolute increase in the amount of illegitimate births, which may remain about the same but may seem higher owing to the smaller number of legitimate births following from a low marriage rate dependent on depressed trade as mentioned above.

The following table gives the total number of legitimate and illegitimate births, with the rates per 1,000 of births and per 1,000 living, and statistics of deaths under one year of age.

Illegitimate Birth Rates 1893.

Registrar's Sub-District	Estimated Population 1893	BIRTHS		ILLEGITIMATE BIRTHS		Total deaths of children under one year of age	Deaths of illegitimate children under one year of age	Proportion of illegitimate deaths to total deaths under one year of age
		Legitimate	Illegitimate	to 1000 living	to 1000 births			
Birkenhead	60599	2171	64	1·05	29·47	469	33	14·2
Tranmere, Oxton & Claughton	40150	1106	45	1·12	40·68	205	23	8·9
Bebington	3068	45	..	..	..	3	..	..
Total	103817	3322	109	1·05	32·81	677	56	12·0

It will be seen from the above that for every 1,000 *legitimate* births registered during the year, 186·9 deaths of *legitimate* children under one year of age took place, whilst for every 1,000 *illegitimate* births registered during the same period no less than 513·7 deaths of *illegitimate* children under one year of age took place. In other words more than 50 per cent of the illegitimate children born, die within the first year of life. This speaks for itself.

Vaccination.—Mr. John Carter, Clerk to the Guardians of the Birkenhead Poor Law Union, has kindly supplied me with the following *latest completed* information relative to vaccination in the District, viz:—

Return as to the vaccination of children born during the year from 1st July, 1892 to 30th June, 1893.

Births	Successfully Vaccinated	Insus-ceptable	Had Small-pox	Died Unvaccinated	Postponed by Medical Certificate	Removed to Districts the Vaccination Officers of which were duly notified	Removed to places unknown or which cannot be reached	In Abeyance
3378	2834	17	1	391	61	14	54	6

The percentage of children successfully vaccinated out of the total number of births was therefore 83·89.

The number of deaths of unvaccinated children, viz., 391, is very large and gives a percentage of 11·57.

Pauperism.—The latest completed information obtainable is for the year Michaelmas, 1892, to Michaelmas, 1893, the cost of relief during this period was as follows, viz:—

	£	s.	d.
In-maintenance in year ended Lady Day, 1893, was	6921	7	6
Out door relief (including non-resident and boarded-out paupers)	7980	1	2
Total.....	£14901	8	8

The lowest number of In-door poor in any week during 1893 was 698, and the highest number 843.

The lowest number of Out-door poor in any week during 1893 was 1,669, and the highest number 1,779.

Marriages.—The number of marriages in the Borough during the year 1893 was 594, giving an annual rate per 1,000 living of 5·72 a low rate.

Meteorological Results.—By way of introduction to the remarks it is proposed to make on the noteworthy features of the meteorology of the year, the following tabular statement is submitted of the mean temperature and atmospheric pressure, and the amount of rainfall in each month of 1893. It has been kindly prepared by Mr. W. E. Plummer, Director of the Liverpool Observatory, Bidston Hill, who also furnishes particulars weekly of the daily observations taken under his directions. From which Table IV. in the appendix is compiled.

1893				Mean Tempera- ture	Mean Barometer	Rainfall on ground
				o	Inches	Inches
January	..	..	..	37·5	30·057	1·467
February	..	..	..	41·2	29·633	2·873
March	..	..	..	46·5	30·093	0·531
April	..	..	..	51·0	30·172	0·500
May	..	..	..	55·5	30·054	1·657
June	..	..	..	61·2	29·995	1·545
July	..	..	..	61·9	29·879	3·136
August	..	..	..	63·7	29·981	2·236
September	..	..	..	56·0	29·827	3·401
October	..	..	..	51·2	29·840	2·640
November	..	..	..	42·3	30·017	1·420
December	..	..	..	42·6	29·895	3·031

The meteorological results show as follows:—

Barometer.—The mean barometer of 1893 (29·953-inches) was higher than in 1892 but lower than in 1890 and 1891. The monthly mean was high in January, March, April, May and November. It was very low in February. The highest reading during the year was on December 29th and 30th, when 30·74 was reached, on the 8th April and November 21st 30·57 was reached. The lowest barometer touched was 28·70 on December 13th.

Temperature—The mean temperature in 1893 was 50·8 degrees F. or higher than in 1892, but somewhat lower than the means of 1889, 1890, 1891, and the mean yearly temperature in the locality. The severest weather was experienced in the first quarter and last two months of the year. There was freezing, more or less on ten days in January, three days in February, and one day in March.

There was also a little frost on four days in November and on three days in December. The lowest temperature reached at any time during 1893 was 17·7 degrees F. on January 4th. The highest temperature reached was 85·0 degrees F. on June 18th.

Rainfall.—The rainfall in 1893 (23·437 inches) was very low, and lower than in any year since 1887, when it was under 21 inches. The rainfall in 1892 (32·856-inches) was in excess of the average fall in the locality, and greater than the rainfall of the previous year. A rainfall of 27 inches was recorded in 1889 and 1890; in 1888 but 24 inches of rain fell, and in 1887 under 21 inches—a smaller rainfall than any recorded since there has been an Observatory at Bidston. The number of hours in which rain fell during the year was 538·1, it was 733 in 1892, which was higher than the yearly average. The heaviest fall on any single day was on July 8th (1·402 inches).

Wind.—The wind force in 1893 was at the rate of 18·4 miles an hour, which is slightly in excess of the local average. The most rapid motion of air during any single hour of the year was on February 10th—on this day the rate of wind per hour was from 22 miles to 64 miles. The rate for the whole twenty-four hours of the day was 1,178 miles, giving a mean hourly motion of air of 49·1 miles. There were only two hours in the year in which there was no wind—these calm hours occurred on March 18th and October 18th, one hour on each day—there were eight calm hours in 1892. In 1893 64·89 per cent. of the winds were westerly, including due south, a percentage a little above the average.

Humidity of the air.—The mean difference between the wet and dry bulb of the thermometer in 1893 was greater than in the previous four years, and the average.

Cloud.—The proportion of cloud to clear sky is estimated twice daily. In 1893, the proportion was 60·6 per cent. This is a lower per centage than the mean proportion.

This year's meteorology naturally introduces the next subject to be considered, the distribution of the mortality over the four quarters, as the relative mortality of different portions of the

year must necessarily be affected by the atmospheric conditions which have marked its progress. Of the sum of the deaths registered in Birkenhead and Claughton 287 were entered to the first quarter, 329 to the second, 336 to the third, and 367 to the fourth; of the sum of the deaths in Tranmere and Oxton, 153 appear in the first quarter, 135 in the second, 141 in the third, and 193 in the fourth. In Bebington the numbers of deaths registered in the four quarters were respectively 6, 9, 5, 14; and in the Union Hospital and Workhouse the numbers were 55, 27, 34 and 41. Expressed in death-rates per 1,000 living, the mortality of the whole Borough, in 1893, was 19·3 in the first quarter, 19·2 in the second quarter, 19·8 in the third quarter and 23·6 in the fourth quarter. The mortality of the last quarter is thus shown to be very high. The death-rate for the remainder of the year is about the mean.

The Classification of Death-Causes.—The causes of death, as they appear in Tables I. and II in the appendix, are systematically classified according to the principles laid down by the late Dr. W. Farr, the nosology being that adopted by the Registrar-General until within the last few years, which experience has shown to be well suited for statistical purposes. The death-causes are arranged under classes and orders, the latter corresponding to the families of Natural History. Genera, or what in diseases would be called varieties, are not distinguished. All death-causes are thus conveniently classified under 116 heads, some of which, however, include diseases very distinct from one another.

At the beginning of Table I. are the totals of deaths from all causes, and on the next line the totals of deaths from specified causes. The deaths which it is necessary to refer to unspecified causes are not only those ascribed, in legal phraseology, to “visitation of God” or “natural causes,” but also those which, with almost equal vagueness, are classified as due to “tumour,” “coma,” &c. The deaths from specified causes are then divided into five classes. Class I. (the zymotic) embraces all diseases, either epidemic, endemic, or contagious, which are induced by some specific body, or by want of or by the bad quality of food.

The diseases coming under Class II. (constitutional or cachectic) appear to be due to a bad habit of body, and are sometimes hereditary. Class III. takes in diseases the effects of which are manifest in disturbing or obliterating the function of particular organs or systems. Class IV. includes the conditions tending to produce death, which are the incidental results of the formative, reproductive, and nutritive processes. Class V. groups together all deaths which are the evident and direct result of physical or chemical forces.

Of the 2,132 deaths registered in the Borough during 1893, 2,106 were ascribed to specified causes; that is to say 388 to zymotic diseases, 248 to constitutional diseases, 1040 to local diseases, 364 to developmental diseases, and 66 to violence. The proportion of deaths from zymotic diseases to the whole number of deaths was thus 18·1 per cent. The proportion which deaths ascribed to zymotic diseases bear to deaths from all causes is, however, a matter of no great significance, as of course the general death-rate varies considerably from year to year; and any increase in the fatality of non-zymotic diseases, such as phthisis or pneumonia (which are closely allied to zymotic diseases), makes the proportion of deaths from zymotic diseases compare more favourably.

An accurate estimate of the relative mortality from zymotic diseases, and from the other four classes of death-causes just referred to, can only be made by taking out the death-rate per 1,000 living, as respects each of the five classes. This has been done, and the results are displayed in the following table. Parallel with the column containing the death-rates for 1893 are the corresponding corrected death-rates for 1892, 1891, 1890, and the mean of the corresponding corrected death-rates in the ten years 1881-90.

CLASSES	Annual Death-rate per 1000 Living				
	1881-90 Average	1890	1891	1892	1893
Zymotic Diseases	3·11	3·35	2·63	3·05	3·73
Constitutional Diseases	2·75	3·42	3·07	2·25	2·33
Local Diseases	9·63	10·20	11·04	9·53	10·01
Developmental Diseases.....	3·16	3·38	3·17	3·40	3·50
Violent Deaths.....	0·82	0·58	0·98	0·07	0·63

This table shows that the death-rates as regards constitutional diseases in 1893 were lower than the corrected mean rates. The zymotic death-rate was above the mean. The death-rate as regards developmental diseases was also above the mean rate. The proportion of deaths due to violence was below the mean.

Zymotic Diseases.—The deaths from zymotic diseases include 310 by what have been termed the chief zymotics (certain diseases belonging to miasmatic order), viz.: smallpox 1, measles 15, scarlatina 12, diphtheria 16, whooping cough 68, fevers 27, and diarrhœa 171. The remaining 78 were entered to what have been called minor zymotics (diseases less prevalent, less fatal, or less obviously zymotic in character), viz.: influenza 21, croup 4, quinsy 1, syphilis 15, erysipelas 9, rickets 2, alcoholism 10, chicken pox 1, puerperal fever 5, and inanition of infancy 6, thrush 1, others 3. The mortality from the chief zymotics in 1893 was equal to a death-rate of 2·90 per 1,000 living.

The death-rates in respect of the principal and other zymotics during 1893 are given in the next table. Corresponding corrected rates for 1890, 1891, 1892 and the average of corrected rates for the ten years 1881-90, having been taken out for comparison.

ZYMOTIC DISEASES.	Annual Death-rate per 1000 Living.				
	1881-90 Average	1890	1891	1892	1893
Chicken Pox	0·00	0·00	0·00	0·009	0·009
Smallpox	0·016	0·00	0·00	0·009	0·009
Measles	0·55	0·90	0·34	0·620	0·144
Scarlatina	0·32	0·15	0·05	0·079	0·115
Diphtheria	0·09	0·11	0·11	0·059	0·154
Whooping Cough	0·48	0·38	0·30	0·058	0·655
Fevers	0·31	0·44	0·46	0·023	0·260
Diarrhœa	0·63	0·71	0·35	0·056	1·647
Other Zymotics	0·72	0·63	1·01	0·091	0·539

This table shows that in 1893 the mortality of all the principal zymotic diseases was below the average, except diphtheria, whooping cough, and diarrhœa. The fatality from scarlatina is low, the fatality from diarrhœa is unprecedentedly high. On the other hand the mortality from measles is very low, and from fevers much below the mean rate. The mortality from the diseases grouped together as "other zymotics" is also low.

Prevalence of Sickness during 1893.

Small-pox.—Fifteen cases of small-pox occurred in the Borough during 1893. Of these, three cases occurred in January, one in February, and one in March, three in April, one in May, two in June, and two in July, then the disease died out to re-appear in a common lodging house in November, two cases being discovered. In every case the patients were removed to the Infectious Diseases Hospital and isolated within a few hours of their notification, and thus what might have proved a dangerous epidemic was effectually stopped at its commencement. Only one death occurred from this disease, in this case the patient had been vaccinated in infancy, but had been a very heavy drinker.

Chicken-pox.—There was one death registered from this disease during the year.

Measles.—There were 540 cases of measles reported during the year 1893, which is a smaller number than has occurred in any year except 1891, when 524 cases were reported. The epidemic commenced in January with 38 cases, and gradually decreased in intensity up to the end of April; to be again slightly increased during May and June; the disease almost died out during the next three months; but in October and November the number of cases largely increased; and in December no less than 247 cases were reported.

There were 15 deaths certified directly as due to this disease and no doubt others occurred which were not primarily attributed to measles—yet as I said last year when no less than 63 deaths occurred, there are persons who go about openly advocating the exposure of children to the chance of infection on the ground that all children must have it and the sooner they get it the better.

The apathy which exists with regard to the spread of this disease, is due to such false teaching as this, and another cause may be that the incidence of mortality falls chiefly upon the infantile population. But other things may happen worse than the death of the child, I mean permanent bodily disablement. I have known cases of complete blindness follow measles in young children,

simply and solely through neglect in keeping the child in a state of cleanliness during the disease. I don't say that the neglect is wilful, but often done through ignorance.

Compulsory Notification of Measles.

Compulsory notification has been in operation in Birkenhead since the year 1881 under a section of a local Act for that year, and Measles was included in the list of diseases to be notified. We have therefore had twelve years experience of the working of such notification.

It is repeatedly stated that owing to the highly infectious nature of this disease in its pre-eruptive state, it is useless to notify the cases as the mischief is done and the disease spread before the Sanitary Authorities are aware of its existence. This may be perfectly true of the first cases, but it is not necessarily true as a general statement; and the very fact of its being so infective in the pre-eruptive state makes it most important that we should get an early knowledge of existing cases, so that the patient and other members of the family likely to spread the disease may be isolated and kept from school or public places of resort, until such a time as the danger of their carrying the infection to others may have passed away.

I admit that if a general outbreak of Measles in all parts of a district has taken place, notification may not then help much to check the epidemic; but in early outbreaks, limited to small areas, notification is most valuable for the following reasons. It enables a Medical Officer who acts promptly in the matter, by visiting the house affected, and warning the relatives of the dangers run by exposure of the patient, followed up by a prompt prosecution if such exposure is found out, to isolate the case to some extent and if no other good comes of it, as Dr. Bostock Hill has pointed out, exposure of the patient to chill is prevented in many cases with the result that the mortality is diminished. Further by closing the Schools in the affected district a very great deal may be done to check the spread of the disease. I have in my own experience limited the area of infection and stopped an epidemic in one instance by such

means as those mentioned above, and in a second instance I believe I succeeded in limiting the number of cases to a certain degree. There are years however when the outbreak appears to be general in every part of a district, and under those conditions I do not think that notification helps you to stop the spread of the epidemic to any large extent.

One great difficulty always arises where you have to deal with large blocks of tenement houses. In these cases your only way is immediately on receipt of the first notification to isolate the patient in hospital, disinfect the infected rooms, and let the Inspector call constantly and watch for the development of any fresh cases during the period of suspicion, and should any arise, at once remove them to hospital as before. Such action has been taken in the case of a very large block of houses in this district with very beneficial results, and I am confident that much can be done in this way to stop the spread of the disease.

There are however other advantages of notification, for example where it is important that the house should be under special surveillance, as where a case arises in a milk shop, confectioner's, or other food supply store of a similar description.

And last but not least is the disinfection of the premises afterwards. In the large and better class houses this is not of so much importance, but in the lower class of houses, especially amongst the dirtier part of the population, a very great benefit is derived from getting the excuse for giving the premises a thorough disinfection and cleansing. Other sanitary defects in the houses also are thus often brought to light during the process of disinfection, which it is most important should be put right and corrected.

Our experience, therefore, of the notification of Measles is that the advantages derived from such notification fully justify the continuance of it, and more than counter balance the disadvantages of cost and trouble involved by such a course.

The following table shows at a glance the statistics for the last twelve years relative to

The Notification of Measles.

NUMBER OF CASES NOTIFIED.	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893
By Medical Practitioners ..	599	486	799	961	543	1278	771	998	1598	506	1416	531
" School Attendance Officers ..	..	52	117	30	50	49	46	54	21	16	103	8
" Parents or Relatives ..	15	1	17	8	..	3	2	5	..	..	23	1
" Registrar (after death) ..	1	9	8	2	2	4	..	..	1	2	..	..
Total	615	548	941	1001	595	1334	819	1057	1620	524	1542	540
Number of Deaths	34	40	40	78	22	81	15	61	89	34	63	15
Mortality per cent of notified cases	5.52	7.28	4.25	7.79	3.69	6.07	1.83	5.77	5.49	6.48	4.08	2.77
Measles Death rate per 1000 living of population ..	0.39	0.45	0.44	0.85	0.23	0.86	0.15	0.62	0.90	0.33	0.61	0.14

It will be seen from the above, that the number of deaths registered amongst unnotified cases has steadily diminished year by year, and that apparently very few cases now escape the knowledge of the Sanitary Authority.

German Measles.—There were eleven cases of German measles reported during the year, but no deaths from this disease.

Scarlatina—was prevalent during the whole year, 421 cases being notified during the twelve months, or some 197 more cases than occurred in 1892. The greatest number reported during any one month was in October when 67 cases occurred. The disease was not confined to any one quarter of the Town but pretty evenly distributed over the whole Borough. The number of deaths 12, was very low in proportion to the number of cases reported, and a lower number than occurred in either 1889 or 1890, but 4 higher than last year, and 7 higher than in 1891 when only 5 deaths were recorded.

Diphtheria.—Seventy-seven cases of diphtheria were reported during the year, a larger number than in any year since compulsory notification came into force. Of these no less than 16 died, a mortality of 20.7 per cent., and of these sixteen who died, eleven were under five years of age at the time of death.

Croup.—There were also four deaths attributed to croup. Three of these being in children under five years of age.

Fevers.—The number of cases of fever notified in 1893 was considerably more than that of the previous year, viz.:—234 as compared with 164 in 1892 and 237 in 1891—of these 4 were ascribed to typhus fever, 221 to typhoid fever, and 9 to simple continued fever.

Typhus Fever.—Of the four cases notified to the Sanitary Authority, three of them occurred in April and one in September—in every case the patient was immediately removed to the Infectious Diseases Hospital and isolated, every care being taken to stop the spread of the disease. One patient out of the four succumbed to the disease.

Typhoid Fever.—As previously stated there were 221 cases of Typhoid Fever notified during 1893, this disease being practically never absent from the town. The number of cases this year being greater than the number recorded in any year since 1888. The number of deaths, 26, was proportionately very low, and less than the number recorded in any year during the past five years, except last year when it was exceptionally low. The number of deaths being 31 in 1888, 34 in 1889, 30 in 1890, 31 in 1891 and 22 in 1892.

Diarrhœa.—The year has been marked by the large increase in the number of deaths from Summer Diarrhœa, no less than 171 deaths being attributed to this cause, of which 147 were of children under two years of age.

This number is about 122 higher than the mean number recorded in the ten years 1881-90, and 114 higher than last year, we must therefore look for some special factor as a cause of the large increase noticed.

It has long been known to all who are conversant with the subject, that the prevalence or absence of this disease is dependent in some way upon a higher or lower temperature.

The summer of 1893 was one of the hottest which we have experienced for some time, and in this fact we find a sufficient cause for the increase in the prevalence of diarrhœa.

In some of the low lying districts of the Town the present sewers are more or less foul, with gradually accumulating deposits from their contents, and there are also a large number of privy middens (in many cases close upon the houses) from which soakage into the surrounding soil must have been going on for years. In addition to these there are some thousands of open ashpits with their accumulations of dead organic matter and filth of every description—so that there is ample ground for the growth of infectious germs. It has been shown that materials of this kind, with their many microscopic forms of life, only require a sufficient warmth for these germs to increase and multiply to an enormous extent, they are then wafted about in the air, carried into the houses and confined places, and spread disease in every direction.

A temperature of 60 degrees F. and upwards furnishes all that is required for an active development of microbic life, and this must have been attained in the sewers and ground air during a considerable portion of last summer. It has been shewn by actual examination of sewer air, in similar sewers to the ones I have mentioned, that these microbes were largely in excess in the sewer air as compared with the external air.

It follows therefore that the air of such districts as the ones mentioned, which are most exposed to such dangers, must contain more of those infectious germs than that of the higher and more open districts of the Town, and the inhabitants must suffer proportionately in their Diarrhœa and Typhoid mortality, which thus accounts for the large increase in the Diarrhœa death rate.

This leads me to say a word on a subject closely connected with this, namely,

Open Sewer-Ventilators in the Roads.

During the year 1893 there has been a very great increase in the number of complaints received regarding nuisances arising from the effluvia from the sewer ventilators.

In some few instances no doubt these complaints may have been well founded, and possibly a few cases of diarrhœa or other disease might be traced to this cause, still it by no means follows that a bad and objectionable smell is necessarily dangerous to health. But if we grant this, I at present see no means of remedying the defect.

It is impossible to have the sewers unventilated, otherwise the confined gases would force their way through the traps and water-seals into the houses, and the danger be far greater than at present. The only way would be to carry ventilating tubes up the ends of every convenient house, and wherever possible permission is being obtained to do so; but so long as owners, and more particularly occupiers, continue to oppose in every way such a course being adopted, there seems to be no option but to continue the present effective, but in some respects objectionable, method of sewer ventilation.

Recognising the difficulties mentioned, the Borough Surveyor has taken, during the year in question, very exceptional and thorough means to have the sewers and gullies periodically flushed with disinfectants, so as to reduce the danger to a minimum.

Influenza.—This is not one of the diseases notifiable under the Local Act, and consequently we have no direct means of knowing to what extent it prevailed in the district. There were however 21 deaths directly attributed to this cause, being one more than those of last year, but a much smaller number than occurred in 1891, when 48 deaths were recorded. Of the deaths occurring in 1893, ten were males and eleven were females.

Whooping Cough.—This also is not one of the notifiable diseases, and consequently we have here also no record of the number of cases occurring. There were however no less than 68 deaths registered under this head, being 9 more than last year.

Cholera.—No case of Cholera was known to the Sanitary Authority as having occurred in the district during 1893.

In view however of the prevalence of Asiatic Cholera on the Continent, the Medical Officer of Health reported upon the steps which he considered it necessary should be taken in view of the possible approach of the disease.

The Health Committee, after carefully considering the report, gave instructions for most of the recommendations contained therein to be carried out, and the following extra precautions were taken.

1st.—The sewers and gullies were regularly flushed with disinfectants.

2nd.—Two extra labourers were appointed to go round all the back passages and courts and see that they were kept thoroughly clean, and the gullies &c. cleansed with disinfectants as used in the sewers, a special hand water-barrel being provided for this purpose.

3rd.—The more frequent emptying and disinfection of the privies and ashpits in the populous parts of the towns was attended to. And for this purpose four extra horses and carts with their proper complement of two men each, at a cost of £3 12s. per week each cart, were engaged in addition to the ordinary nightsoil work.

4th.—A special temporary Inspector was also appointed whose duty it was to report daily all privies and ashpits specially requiring attention, and to see that the work throughout the town was being efficiently carried out by the Contractors.

It was also recommended that a temporary hospital be procured and made ready for the reception of patients should any case occur, but great difficulty was experienced in obtaining a suitable place, and the danger passing over the matter was allowed to drop.

Fortunately the special powers granted to the Committee by the Council on the 30th September, 1892, had not to be put in force during the year.

Notification of Cases of Dangerous Infectious Diseases.—
 The 75th Section of the Birkenhead Corporation Act, 1881, which requires householders and medical men in attendance to notify cases of dangerous infectious diseases to the Sanitary Authority, gives facilities for supplementing the statement of the mortality from zymotic diseases with a statement of cases of sickness due to some of the chief zymotic diseases, month by month, as they were reported. The diseases the Authority understand by the term “dangerous infectious diseases” are smallpox, measles, German measles, scarlatina, diphtheria, membranous croup, fevers (typhus, typhoid, continued, relapsing and puerperal septicæmia), and cholera. The cases notified appear in the following return. Of the whole number 1,287 were notified by duly qualified medical practitioners, 11 were notified by school attendance officers, such notifications being subsequently verified by the occupiers, 1 case was notified by the occupier only, and 2 cases were notified by the registrar—of course after death. This may be assumed to represent proximately the extent of the failure of compulsory notification. In 1892 there were two cases, and in 1891 there were four cases not notified till after death. In 1890 there were five cases, and in 1889 only one case was not notified till after death.

Notifications of Dangerous Infectious Diseases.—

1893	Smallpox	Measles	German Measles	Scarlatina	Diphtheria	Typhus Fever	Typhoid Fever	Fever	Cholera	TOTAL
January....	3	38	1	28	2	..	16	1	..	89
February ..	1	13	2	24	2	..	10	1	..	53
March	1	4	..	26	5	..	7	2	..	45
April	3	5	8	40	9	3	8	..	..	76
May	1	23	..	51	4	..	12	1	..	92
June	2	32	..	34	10	..	12	1	..	91
July	2	17	..	18	1	..	18	..	..	56
August ....	..	4	..	15	3	..	29	..	..	51
September..	..	22	..	32	9	1	28	..	..	92
October ....	..	59	..	67	20	..	38	..	..	184
November..	2	76	..	59	8	..	29	1	..	175
December ..	..	247	..	27	4	..	14	2	..	294
	15	540	11	421	77	4	221	9	..	1298

Comparing the number of cases reported in 1893 with the number of deaths, in respect of each disease, it will be seen that just 1 to 36 of the known cases of measles died, 1 in 37 of the known cases of scarlatina, nearly 1 to 5 of the known cases of diphtheria, 1 to 4 of the known cases of typhus, and 1 to 8½ of the known cases of typhoid fever died.

As the notification of cases of dangerous infectious diseases has now been required since the beginning of the year 1882, it may be interesting here to introduce a tabular statement showing the number of cases of the various diseases notified during the twelve years 1882-93. The statement is as follows:—

Year	Smallpox	Measles	German Measles	Scarlatina	Diphtheria	Typhus Fever	Typhoid Fever	Fever	Cholera	TOTAL
1882	..	615	..	152	9	99	86	25	1	987
1883	3	548	..	169	19	42	76	17	..	874
1884	131	941	..	277	13	17	74	9	1	1463
1885	24	1001	..	556	21	1	38	2	..	1643
1886	6	595	10	617	24	18	58	4	..	1332
1887	..	1334	12	914	21	8	142	4	..	2435
1888	..	819	4	438	36	13	234	2	..	1546
1889	..	1057	13	262	30	..	191	1	..	1554
1890	..	1620	17	247	35	64	182	1	..	2166
1891	..	524	38	180	28	38	197	2	..	1007
1892	12	1542	5	218	25	10	150	4	..	1966
1893	15	540	11	421	77	4	221	9	..	1298
	191	11136	110	4451	338	314	1649	80	2	18271

Phthisis (Pulmonary Consumption).

Pulmonary Consumption is an infectious disease; it destroys annually from 150 to 200 lives in this Borough, and as will be seen from the following table giving the number of deaths for the last ten years, its fatality nearly equals that of the eight principal zymotic diseases. The source of the infection arises from the phlegm and breath. These contain certain minute organisms (tubercle bacilli and their spores) which drying in the air of the room are wafted about, poison and render it infective to persons breathing it, especially those who are predisposed to the disease,

	Number of Deaths.									
	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893
TUBERCULAR DISEASES.										
Phthisis	148	147	161	136	135	146	200	195	155	167
Tabes Mesenterica ..	18	9	21	18	22	31	26	17	4	12
Scrofula	4	..	1	2	5	5	5	8	5	..
Hydrocephalus.. ..	28	17	18	24	15	16	21	24	3	6
Total	198	173	201	180	177	198	252	244	167	185
GROUP OF PRINCIPAL ZYMOTICS.										
Smallpox	11	2	2	..	..	..	..	..	1	1
Measles	40	78	22	81	15	61	89	34	63	15
Scarlatina	27	29	40	89	34	13	15	5	8	12
Diphtheria	8	14	15	10	7	8	11	11	6	16
Typhus Fever	4	1	4	3	6	..	13	15	2	1
Typhoid Fever	17	12	11	21	31	34	30	31	22	26
Diarrhoea	80	27	91	74	37	56	70	35	57	171
Influenza .. .. .	..	..	..	..	..	..	2	48	20	21
Total	187	163	185	278	130	172	230	179	179	263

There is at present an attempt being made in many sanitary districts, to place Phthisis in the list of notifiable infectious diseases, with a view of controlling the spread of the fatal malady, but the cost of carrying out any effectual scheme and the many very serious social difficulties which arise in dealing with this subject, render it for the present impracticable, in my opinion, to be dealt with by your Committee.

Constitutional, Local, and Developmental Diseases.—Having given the death-rates in Birkenhead in respect of the five classes into which death-causes have been divided, and the principal and other zymotics, a table is now submitted showing the death-rates in the Borough as respects the orders under which the death-causes belonging to Classes II., III., and IV. have been grouped. Parallel with the columns containing the rates of 1893, are the corresponding death-rates for 1892 and 1891, the corrected death-rate for 1890, and the mean of the corresponding corrected death-rates in the ten years of 1881-90.

CONSTITUTIONAL, LOCAL, AND DEVELOPMENTAL DISEASES.	Annual Death-rate per 1000 Living				
	1881-90 Average	1890	1891	1892	1893
Diathetic Diseases	0·63	0·85	0·58	0·58	0·59
Tubercular Diseases.. .. .	2·11	2·56	2·49	1·66	1·79
Diseases of Nervous System	2·81	3·06	3·00	2·66	2·64
" Organs of Circulation	1·21	1·20	1·29	1·07	1·35
" Respiratory Organs	3·91	4·52	5·32	4·07	3·90
" Digestive Organs	1·08	0·97	1·00	1·13	1·44
" Urinary Organs	0·41	0·29	0·27	0·37	0·44
" Organs of Generation	0·01	0·00	0·01	0·15	0·10
" Organs of Locomotion	0·05	0·07	0·08	0·00	0·01
" Integumentary System	0·08	0·06	0·06	0·03	0·09
Developmental Diseases of Children ..	0·80	0·80	0·73	1·03	1·06
" " Adults	0·15	0·13	0·18	0·00	0·10
" " Old People	0·84	1·18	1·07	1·20	1·26
Diseases of Nutrition	1·36	1·26	1·18	1·16	1·06

The two orders under which constitutional diseases are arranged have little in common, except that in typical diseases in each order new morbid products are deposited. Diathetic diseases account for 62 deaths, of which 25 were due to cancer, 11 to rheumatism, 5 to anæmia, 5 to mortification, 4 to dropsy, 1 to gout, and 11 were ascribed to tumour. All but 9 out of the 62 were deaths of adults. Tubercular diseases account for 186 deaths, of which 167 were due to phthisis pulmonalis, 6 to hydrocephalus, 12 to tabes mesenterica, and 1 to hæmoptysis. Forty-eight of the deaths in this order were of children and young persons. The diathetic disease death-rate of 1893 is almost the same as in 1891 and 1892, and a little below the local mean rate; and the tubercular disease death-rate of 1893 is higher than that for 1892, but lower than in either 1890, or 1891 and one-sixth less than the local mean rate.

Of the eight orders under which local diseases have been arranged, the first four account for an overwhelming proportion of the mortality referred to this class. The deaths from diseases of the brain and nervous system in 1893 were 275, the deaths from diseases of the heart and blood-vessels were 141, the deaths from diseases of the respiratory organs were 405, and the deaths from diseases of the digestive organs were 150. The deaths entered to

diseases under the remaining four orders were 69. Of the 1040 deaths from local diseases, 349 were of infants under five years of age, and 62 were of children and young persons over five years and under twenty. It will be seen that the death-rate as regards diseases of respiratory organs in 1893 was less than during the last three years, and about that of the mean rate. The death-rates as regards diseases of the nervous system and diseases of the organs of circulation in 1893 were also about the mean rates. The death-rates in respect of diseases of the digestive and urinary organs in 1893 were also about the mean rates.

Of the deaths caused in Class IV., 111 were ascribed to so-called developmental diseases of children, *i.e.* premature birth, malformations, and teething, 131 to old age, and 111 to diseases of nutrition, that is, atrophy, debility and marasmus. The death-rates for 1893 in this class do not compare unfavourably with the corresponding local mean rates. The number of deaths ascribed to old age is considerably more than the average, and the number ascribed to the diseases of nutrition is slightly below the average. There is some reason to believe that the number of deaths due to childbirth is understated year by year; many deaths in childbed being certified to secondary causes, "peritonitis," "convulsions," &c.

Inquests.—The number of inquests held during 1893 was 171, thus 8·0 per cent. of the sum of the deaths in the Borough formed the subjects of official enquiries. Of these inquests 108 were in the township of Birkenhead, 46 were in Tranmere, 4 in Claughton, 4 in Bebington, and 9 were held in the Workhouse; 91 were on the bodies of males, and 38 were on the bodies of females. In 1892 the number of inquests was 188, in 1891 156, in 1890 120, and in 1889 the number was 134. Out of the 171 inquests held, in 37 cases, or no less than 21·6 per cent., it does not appear that the actual *cause* of death was ascertained at all. Thus it is stated as follows:—

Found dead in bed	...	...	...	...	15
Natural causes	...	...	...	...	10
Found dead	...	...	...	...	2

Nature of disease unascertained	...	...	...	...	3
Accidental death	...	...	...	...	1
Found drowned (whether thrown into the water before or after death not being stated)	...	...	...	...	6

One fails to see what benefit is obtained from inquests which arrive at such indefinite conclusions.

Deaths not certified.—Not all the death-causes which are classified represent diseases or symptoms observed and certified by medical men in attendance during the last illness, or verdicts following official investigation. A significant proportion of the death-causes are entered in the register on the doubtful testimony of deceased persons' relatives, or friends, or fellow lodgers. The registrars have, therefore, been required to mark in the returns furnished, every death not certified by a registered practitioner, or made the subject of a coroner's inquest. In 1893 out of the 2,132 deaths registered, 24 (16 males and 8 females) were marked "not certified,"—that is 1·12 per cent. Fourteen of these uncertified deaths took place in the Township of Birkenhead, and ten in Tranmere. With one exception all were of infants under one year of age; in this case the child was fourteen months old. It is a great defect of our present law that such deaths should be allowed to be registered without an official enquiry into their cause. It is a very significant fact that in every case they were deaths of infants. The causes of the 24 deaths were entered in accordance with the statements of persons giving information to the registrars as follows:—

12	to premature birth
6	to convulsions
1	to diarrhœa
1	to rickets
1	to tabes mesenterica
1	to malformation
1	to teething, and
1	to debility

The proportion of uncertified deaths to the sum of the deaths was, as already stated, 1·12 per cent. as compared with 0·45 per

cent. in 1892, under 0·9 per cent. in 1891, 1·1 per cent. in 1890, and 1·4 per cent. in 1889; the mean proportion during the ten years 1879-88 was 2·6 per cent. The proportion of uncertified deaths is therefore decreasing, which is most satisfactory.

Deaths classified according to localities.—Tables I., II., III., IV., and V., in the appendix, having been fully discussed, are followed by Table VI. in which the deaths registered during 1893, are classified according to the localities in which they occurred. The Street Register is divided into three parts—the part marked “A” including the streets and places in the old Birkenhead Improvement District; the part marked “B” the streets and places in Tranmere and Oxton; and the part marked “C” the streets and the places in the incorporated portion of Bebington. Opposite each street or place is the number of deaths, from all causes and from zymotic diseases, registered as occurring in that street or place during the year. In the headings to the different parts of this table (and in Tables I., II., and III.,) the names of townships are not placed as indicating the locality referred to, but the names of wards. Thus the old Improvement District appears as Cleveland, Claughton, Grange, and Argyle Wards; Tranmere and Oxton appear as Oxton, Egerton, Clifton, and Mersey Wards; and the portion of Bebington incorporated appears as Bebington Ward. As it was felt that particulars of the number of deaths from all causes, zymotic diseases and causes not certified, in each ward, would prove interesting, and as the Street Register does not afford this information, the table here submitted has been drawn up.

1893			Deaths from All Causes		Deaths from Zymotic Diseases		Deaths from Causes Uncertified	
			M.	F.	M.	F.	M.	F.
Cleveland	Ward	..	203	172	43	31	1	1
Claughton	..	..	22	20	2	4	..	..
Grange	..	..	278	273	52	52	6	1
Argyle	..	..	170	181	31	32	3	2
Oxton	..	..	25	26	4	6	..	..
Egerton	..	..	70	89	15	14	1	1
Clifton	..	..	152	144	30	35	1	1
Mersey	..	..	69	47	13	9	4	2
Bebington	..	..	16	18	2	2	..	..

This table will, with the Street Register, furnish all the information that can be required on the subject. It is well to note that the streets opposite which the highest death-totals appear, are not the streets in which the mortality was really the highest. In 1893, as in past years, the sickness and mortality were most prevalent in the smaller streets and alleys inhabited by the very poor.

The following table shows the relative mortality of the wards during 1893:—

1893	Estimated Population at Midsummer	General Death-rate per 1000 Living	Zymotic Death-rate per 1000 Living
Cleveland Ward	18032	20·79	4·10
Cloughton „	3649	11·51	1·64
Grange „	26359	20·90	3·94
Argyle „	16201	21·65	3·88
Oxton „	4604	11·07	2·17
Egerton „	10384	15·31	2·79
Clifton „	15690	18·86	4·14
Mersey „	5824	19·91	3·77
Bebington „	3068	11·08	1·30
Birkenhead Borough including deaths in Union premises .. }	103817	20·53	3·73

The deaths in the Borough Hospital instead of being entered as occurring in Cleveland Ward, have been referred to the Wards from which the patients who died were received. Similarly the deaths in the Wirral Children's Hospital and Lying-in-Hospital, have not been entered to Grange Ward and Argyle Ward respectively, but as occurring in the Wards from which the patients who died were received. It will be seen that the Ward showing the highest zymotic death-rate in 1893, was Clifton Ward. The highest death-rate was in Argyle Ward, and that all the three wards in the township of Birkenhead show a high death-rate compared with the wards in the remainder of the Borough.

Relative Fatality of Chief Zymotic Diseases.

The following table shows at a glance the relative fatality of the chief zymotic diseases for each year since the incorporation of the Borough.

Year	Deaths from Zymotic Diseases.							Death rate per 1000 living.								
	Smallpox	Measles	Scarlatina	Diphtheria	Whooping Cough	Typhus Fever	Typhoid Fever	Diarrhoea	Smallpox	Measles	Scarlatina	Diphtheria	Whooping Cough	Typhus Fever	Typhoid Fever	Diarrhoea
1878	..	72	28	14	90	18	20	74	0.00	0.93	0.36	0.18	1.16	0.23	0.25	0.95
1879	..	23	125	19	14	15	10	33	0.00	0.28	1.56	0.23	0.17	0.18	0.12	0.41
1880	..	15	74	11	69	13	8	77	0.00	0.18	0.90	0.13	0.84	0.15	0.09	0.93
1881	..	49	20	5	45	12	11	37	0.00	0.58	0.23	0.05	0.53	0.14	0.13	0.43
1882	..	34	17	3	89	27	16	63	0.00	0.39	0.19	0.03	1.03	0.31	0.18	0.73
1883	..	40	23	2	31	10	13	45	0.00	0.45	0.26	0.02	0.35	0.11	0.14	0.51
1884	11	40	27	8	9	4	17	82	0.12	0.44	0.30	0.08	0.10	0.04	0.19	0.91
1885	2	78	29	14	66	1	12	28	0.02	0.85	0.31	0.15	0.72	0.01	0.13	0.30
1886	2	22	40	15	18	4	11	91	0.02	0.23	0.43	0.16	0.19	0.04	0.11	0.98
1887	..	81	89	10	31	3	21	74	0.00	0.86	0.94	0.10	0.33	0.03	0.22	0.78
1888	..	15	34	7	23	6	31	37	0.00	0.15	0.35	0.07	0.24	0.06	0.32	0.38
1889	..	61	13	8	93	..	34	56	0.00	0.62	0.13	0.08	0.95	0.00	0.35	0.57
1890	..	89	15	11	38	13	30	70	0.00	0.90	0.15	0.11	0.38	0.13	0.30	0.70
1891	..	34	5	11	30	15	31	35	0.00	0.33	0.04	0.10	0.29	0.14	0.30	0.34
1892	1	63	8	6	59	2	22	57	0.009	0.61	0.07	0.05	0.57	0.01	0.21	0.55
1893	1	15	12	16	68	1	26	171	0.009	0.14	0.11	0.15	0.65	0.009	0.25	1.64

Deaths in the Union Hospital and Workhouse.—As a supplement to the Street Register, it is deemed advisable to add a return of the deaths in the Union Hospital and Workhouse, giving in each case the address of the deceased, when admitted into the Union, and date of admission. The sex, age, occupation, date and cause of death are extracted from the register, and the information in the last column has been supplied by the Master of the Workhouse. The return is an important one in many respects. From it is prepared the summary here submitted of the localities from which patients dying in the Union were received.

LOCALITIES FROM WHICH PATIENTS DYING IN UNION WERE RECEIVED.	Year when Admitted to Union.											TOTAL.		
	prior to 1882	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891		1892	1893
Cleveland Ward..	1	..	..	2	1	..	1	8	13	22	48
Grange	3	..	1	7	23	36	70
Argyle	1	1	1	..	2	3	5	29	61	103
Egerton	1	5	4	10
Clifton	1	..	..	1	3	9	14
Mersey	1	2	2	2	3	8
Bebington	1	..	..	1
Birkenhead-Ward not specified	2	2	2	1	..	..	..	..	..	1	4	7	19	7
Tranmere-Ward not specified	1	..	..	..	2	4	7	7
Oxton	1	1	1
Seacombe	1	2	1	4	4
Liscard	1	..	..	1	1
Born in Workhouse	2	2	6	10	10
Tramp Wards	1	..	4	1	6	6
Address unknown	2	2	2
Total	2	2	2	2	1	1	3	6	2	7	29	90	157	304

General and Zymotic Death-rate month by month throughout the year.—Table V. in the appendix, shows the general and zymotic mortality, month by month throughout the year. The general death-rate was highest in the month ending July 15th (27·80), and lowest in the month ending May 20th (16·28). The zymotic death-rate ranged from 9·51 in July to 1·62 in February.

Description of those who died during 1893.—The last of the tables appended, Table VII., gives the “description” of all those whose deaths have been registered during the year. The information is furnished in each case by the person registering the death, and is, doubtless, trustworthy. The table may be of some use in supplying the material for a rough estimate of the effects of the year’s mortality on the local community; *i.e.*, the loss sustained by the professional and commercial classes, the artisan and labouring classes, and that largest class of all, the non-productive. Those also employed in any recognized form of skilled or unskilled labour may here see the number of deaths, in 1893, in the ranks of fellow-workers in the Borough. The number of bread-winners removed by death from the local community, in 1893, is computed thus;—The first two columns of Table VII., are cast and added together, giving 529, and from this is subtracted the sum of those described as annuitants, pensioners, ladies, gentlemen, retired tradesmen, &c., or whose occupation is “unknown,” which leaves 472. The number of bread-winners (estimated in the same manner) dying in 1892 was 428, in 1891 it was 655, in 1890 519, and the number dying in 1889 was 472. It does not, of course, follow that everyone described as belonging to any particular trade or calling was necessarily working for a living within a reasonable time of his or her decease, or that everyone described as a son, daughter, wife, or widow, was non-productive, or merely occupied with domestic duties. Still 472 may be regarded as a proximately correct estimate of those among the deceased who were self-supporting, and family-supporting, as distinguished from those who were wholly dependent or only partially self-supporting. The number of those who must have been wholly dependent on others may be computed from figures in the age table.

Sketch Map of the Borough.—The sketch map of the Borough, which has been added, shows the boundaries of the wards and the positions of the houses in which deaths from zymotic diseases have occurred. The fatal cases of zymotic diseases received into the Borough Hospital, Children's Hospital, and Workhouse Hospital have, as far as possible, been referred to the localities from which they were drawn.

Inspection of Common Lodging Houses and Houses let in Lodgings.

The following is a statement of the work performed during the year by the Inspector of Common Lodging Houses and Houses let in lodgings, viz.:—

REGISTERED COMMON LODGING HOUSES.

Day Inspections ...	...	...	...	429
Night Inspections	...	...	...	62

Three new houses were put on the register after being carefully inspected and certified by the Medical Officer of Health, as suitable for the purpose. Before this is done it is required —

1. That the houses are not back to back.
2. That the house has a good water supply.
3. That the water closets attached to the house are in good order.
4. That the drainage is in a proper state.
5. That the roofs and rain spouts are in good condition.
6. That the paving of the yard or court of the house is in good condition and does not allow foul water to lodge.
7. That there is no accumulation of rubbish, or other material constituting a nuisance, on the premises.
8. That the rooms are properly lighted and ventilated, and that they are cleaned and lime-washed.

In every case a notice is fixed to the door of each room stating the exact number of persons it will accommodate.

The total number of registered lodging houses so certified is nine. There were also forty night visits paid to ten unregistered houses suspected of taking in nightly lodgers.

REGISTERED HOUSES LET IN LODGINGS :

Day Inspections	...	...	...	5465
Night Inspections	...	...	...	40

Eighty-four additional houses were put on the register after being properly measured up, and duly certified as fit for the purpose. The total number of houses let in lodgings on the register at the end of 1893 was 278.

During the year four prosecutions were taken for various offences, and convictions obtained in each case as under—

June 9	25 Park St.	1/- and costs	Overcrowding a house let in lodgings.
June 9	4 Walton St.	20/- and costs	ditto
Nov. 3	16 St. Ann St.	10/- and costs	For refusing admission to the Inspector into a house let in lodgings.
Nov. 10	11 Meacock St.	20/- and costs	For an assault on the Inspector on visiting an unregistered house suspected of taking in nightly lodgers.

The following is a copy of the register of these houses kept by the Inspector :—

BOROUGH OF BIRKENHEAD. (Page.)													
Register of Houses let in Lodgings or occupied by members of more than one family.													
Premises No.....Street.		No. in Register.....			Registered.....189								
Name & Address of Owner or Agent and name of Landlord within the meaning of the Byelaws.	Total number of rooms in house	Total number of rooms let in lodgings	Number or other description of each of the rooms let in lodgings	Manner of use of room whether used exclusively or partly as sleeping apartment or not so used	Measurements				No. of Adults if room is used exclusively for sleeping purposes (2 persons under 10 years being considered 1 adult)	No. of Adults if room is not used exclusively for sleeping purposes	Christian name and surname of Lessee of room	Rent or charge payable by Lessee	Remarks and date of the Inspector's subsequent visits
					Width	Depth	Height	Cb. Feet					

Ordinary Sanitary Operations.—The ordinary sanitary operations of this department have received unremitting attention. House-to-house inspections of the cottage property in the Borough

have been regularly made. Gulleys and passage drains have been periodically cleansed, public fountains &c., have been scoured and kept in order, and the systematic removal of ashpit refuse at stated intervals has been carefully superintended.

Overcrowding and Cellar-occupation.—Though the repression of overcrowding and cellar-occupation presents exceptional difficulties, much has been accomplished in the past year.

Seven cellar dwellings were reported by the Inspector, and in every case suppressed.

Summary of Nuisances &c.—The summary of nuisances investigated and dealt with during 1891, 1892, and 1893, is as follows:—

	1891	1892	1893
Number of nuisances reported	3788	4670	6856
Number abated without formal notice.....	162	401	500
Number of formal notices given	2674	4269	6356
Number abated after formal notice and without proceedings	2640	4242	6339
Number of cases in which proceedings were taken for ordinary nuisances	34	27	17
Number abated after proceedings	33	26	17
Number of cases in which proceedings were taken for unlawfully keeping Common Lodging Houses .....	..	4	3
Exposure of scarlatina patient .....	..	1	2
Disinfecting notices .....	..	1232	892
Under Infectious Diseases (Prevention) Act..	..	95	450
Houses Let in Lodgings .....	..	108	74
Common Lodging Houses.....	..	10	10
Cleansing of filthy houses .....	..	4	38

A brief statement of the other measures taken in 1891, 1892 and 1893, for correcting or getting rid of whatever appeared to be prejudicial to health is subjoined.

	1891	1892	1893
Sanitary defects reported by the Inspectors and referred for the action of the Boro' Surveyor	207	165	115
Houses or parts of houses specially disinfected by sulphurous acid or other disinfectants...	422	1280	920
Notices to whitewash and efficiently cleanse milkhouses, cowsheds and dairies, given and complied with ..	240	292	300
Offensive privies ordered for conversion into water-closets	195	282	790
Parcels of infected bedding and clothes disinfected at the Disinfecting House.....	422	230	389
Parcels of infected or discarded bedding and clothes destroyed.....	86	120	197
Carcases of dogs and cats removed from pools or waste land and buried	76	113	133
Deposits of putrid fish and other objectionable refuse removed			11
Total..	1648	2482	2855

It will be seen from the above that the work of the Department has been very largely increased during the year, in part due to the new Acts of Parliament which have come into force since 1st January, 1892.

Cholera Order of 6th September, 1892.—In carrying out the provisions of this Order, 257 visits were made during the year by the Disinfecting Inspector to addresses sent by Port Sanitary Authorities of persons arriving in Birkenhead who were on board ships coming from cholera-infected ports, and who were permitted to land pursuant to Article 2 of the above Order, on giving the Port Medical Officer their names and places of destination. Such persons were kept under supervision until all possibility of their being affected with the disease had ceased.

FACTORY AND WORKSHOP ACTS,
1878 to 1891.

In connection with the carrying out of the provisions of these Acts the following is a statement of the work done by the Inspector during the year, viz.—

- 465 visits have been made to workshops.
- 304 workshops have been placed on the Register up to the end of the year.
- 16 workshops have been closed.
- 13 workshops have been transferred to more suitable premises.
- 325 nuisances in connection with workshops have been reported and abated.
- 82 notices have been served for the abatement of nuisances arising out of defective drainage, and four for inefficient ventilation.
- 75 notices to cleanse and limewash the workshops have been served and complied with.
- 12 cases of overcrowding have been reported and stopped.
- 58 cases have been notified to H.M. Inspector of Factories as referred to in section 3, sub-section 3 of the Act.

Lists of out-workers have been carefully kept, and notices in the form prescribed by the Secretary of State as given in last year's report (pp. 57 and 58) have been served upon forty-five employers.

In every workshop on the register a copy of the following notice has been hung, viz.—

FACTORY AND WORKSHOP ACTS, 1878-91.

Name.....

Street.....

Number of work-people allowed, and cubic space of room.

Room.....		
Cubic Space	No. of People during daytime	No. of People Working Overtime

(Signed) ALFRED GILL,

Town Hall,

Town Clerk.

Birkenhead,.....189

The following is the form of Register kept by the Inspector under these Acts :—

BOROUGH OF BIRKENHEAD.

Page...

REGISTER OF WORKSHOPS.

No. on Register..... Premises No.....St. Registered.....189

Name and Address of Owner or Agent and name of Occupier	Description and position of Workshop	Purpose for which used	Method of Ventilation	Sanitary Accommodation	Measurement of Workshop			No. of Persons Workshop will accommodate during daytime 250 cubic feet per head	No. of Persons Workshop will accommodate working overtime 400 cubic feet per head	Date of Inspection	Remarks
					Length	Width	Height C. Feet				

“Shop Hours Act, 1892.”

In carrying out the provisions of this Act the Inspector has paid 1123 visitors to different shops, and the occupiers' names and addresses have been placed upon a Register specially kept for the purpose, together with the date of his visits. Printed notices in the following form have been served in every case.

THE SHOP HOURS ACT, 1892.

Notice is hereby given, pursuant to section 4 of the above-mentioned Act, that no young person, (that is, a person under the age of 18 years), may lawfully be employed in this shop for a longer period than 74 hours, including meal times, in any one week.

Ashpits, &c.—In my last year's report I called attention to the large number of houses in Birkenhead that have compound privy-middens for the reception of excremental matter as well as ashes and other refuse, frequently of a most objectionable character.

These receptacles are in many cases actually abutting upon the house walls, and in others they are only a few feet removed from bedroom or other windows that open directly upon them.

They form a constant source of danger to the people dwelling near, and are liable at any moment to have infective excreta thrown into them, there to find a nidus for the growth of the infective germs and to form centres for the spread of disease in the locality.

The question as to the number of these privies and compound middens in the Borough has been carefully gone into, and it was estimated that at midsummer, 1893, the approximate number still in existence within the Borough was about 2721.

The Health Committee has been dealing with these middens year by year as opportunities have arisen, and during the past year a very large number have been converted into water-closets and dry ashpits properly covered in and ventilated, and provided with efficient doors and fastenings.

The following table shows the number converted in each year since 1890, from which it will be seen that a great step has been made during this year towards the abolition of these objectionable nurseries of disease.

	1890	1891	1892	1893
Number converted ..	240	195	282	790

Since the above number of 2721 compound middens was estimated there have been 408 conversions ordered, thus leaving a balance of 2313 remaining to be dealt with at the end of the year.

Seizure and Destruction of Unwholesome Meat, Fish, and Vegetables.—The Meat and Food Inspector, Mr. Robert Wagstaffe, has furnished the following particulars of meat &c., unfit for human food, seized and destroyed during 1893.

The total number of seizures made was 535, being 102 more than the number of seizures last year, and the weight of the meat seized amounted to 328,307½ lbs., this amount was made up as follows:—

	lbs.
27 carcasses of beef .....weighing	23480
Portions of beef	13578¼
16 calves	795
Portions of veal	7
32 sheep and lambs	1530
Portions of sheep and lambs	174½
12 pigs.....	1391
Portions of pigs	306¾
Ham and bacon	41
Sausages and brawn	23¾
Cooked cows heels	12
Offal (<i>i.e.</i> liver, lungs, tongues, spleens or melts &c.)	286968¼
Total of meat seized in 1893.....	<u>328,307½</u>

In addition to the above there were also seized 10 cwts. 2 qrs. 9 lbs. of bad fish, 3 lbs. of tinned salmon and lobster, 3 ducks, 4 rabbits, and 5 pheasants.

The amount of fruit and vegetables seized was as follows:—403 lbs. of apples, 749 oranges, 160 lemons, 2 quarts of gooseberries, 30 lbs. of onions, 30 cabbages, 15 cauliflowers, 13 tomatoes, 76 parsnips, 1 cucumber, and 3 bundles of asparagus.

As in all recent years, a considerable proportion of the meat seized was on premises in connection with the Foreign Animals' Wharf, Woodside.

The amount of meat seized and destroyed this year was greater than in any previous year, and much greater than the mean annual

seizure. The mean annual seizure during the ten years 1881-90 amounted to 43,822 lbs., in 1891 it was 64,896 lbs., and in 1892 it was 116,284 lbs.

The large increase in the amount of offal seized this year is due entirely to the hot weather experienced during the summer. The meat went bad in the slaughter-houses at Woodside before it could be disposed of, and became totally unfit for food.

The whole of the bad meat seized is dealt with at the Old Potteries, Seacombe, without creating noticeable effluvia; in accordance with an arrangement entered into in February, 1887.

Twenty-three applications were made to a Justice for an order to destroy diseased or unsound food (under the Public Health Act, 1875, clause 117) and granted in every case. Eighteen persons were summoned before the Magistrate for exposing for sale food unfit for human consumption, and convictions obtained in every case but one. In this case the person undertook to leave the district and give up the trade, and on this understanding the case was adjourned "*sine die*." In one case an appeal was made to the Recorder, who reversed the decision given by the Deputy Stipendiary Magistrate.

Tuberculosis.—During the year 3 carcasses of beasts, 11 carcasses of pigs, and 1 calf's carcass, together with 89 lbs. of beef in pieces, 30 lbs. of bacon, and 562 lbs. of offal, were seized and destroyed through being affected with Tuberculosis.

Method of Seizure of Unsound Food.—I am repeatedly being asked what method we adopt in Birkenhead with regard to the seizure of meat, fish &c.

Our method of procedure is very simple. If on inspection at the slaughter houses, a carcass or offal is found to be diseased and unfit for food, and the owner thereof has not made any attempt to get it away for consumption without our knowledge, we give him the option of signing one of the following forms authorizing us to destroy it. If he is content to do so the matter rests there, and there is then no exposure in the law Courts that can be in any way detrimental to him or his business. The form is as follows:—

BOROUGH OF BIRKENHEAD.

HEALTH DEPARTMENT.

.....189

To the Medical Officer of Health,

Sir,

.....hereby authorise you to take and carry away

.....
belonging to..... now being at the.....
Birkenhead, and request you to destroy the same as being unsound.

.....

If however he is not satisfied to do this but prefers to contest the seizure, or if we have any reason to think that there has been any attempt to "run the gauntlet" with the meat, then I at once serve him with the following notice and apply to a Magistrate for an order for its destruction at the hour named therein. The notice runs as follows :—

MEDICAL OFFICER OF HEALTH'S DEPARTMENT.

TOWN HALL,

Birkenhead.....189...

Sir,

I have to inform you that I have thisseized (under section 116 of the Public Health Act, 1875) at..... Birkenhead, the.....of abelonging to you, and unless in the meantime you consent to its destruction, which you may do by calling at this office or by sending your consent in writing, I shall apply to a Magistrate for an order at the Police Court.....as soon after.....as the application can be heard.

I am, Sir,

Your obedient servant,

R. SYDNEY MARSDEN,

Medical Officer of Health.

To.....

.....

In all such cases the owner is given the opportunity of having expert witnesses to examine the meat before it goes into court, for the purpose of rebutting any evidence we may bring, if the Magistrate chooses to hear them.

But when such a course is taken, if the Magistrate orders its destruction, a prosecution generally follows, as it is regarded by us as a deliberate attempt to put bad meat on to the market.

In the case of seizures from shops or street hawkers, where the articles seized are deliberately exposed for sale, unless there is evidence of complete ignorance of the offence on the part of the parties concerned, they are not given the option of signing a destruction order, but notice is at once given to the owner that an application will be made to a Magistrate without delay, and if an order is obtained a prosecution follows in every such case.

An Important Meat Case.

During the year the important meat case of "*Bater and Williamson v. the Corporation*," was heard and decided, which has set at rest certain disputed points with regard to the seizure and inspection of meat under sections 116 and 117 of the Public Health Act, 1875.

The chief points of the case may be stated as follows:— The case arose in connection with the seizure of a carcass of beef which I made at the Woodside Lairages, Birkenhead, on the 23rd August, 1892, and which led to a judgement of considerable importance to Sanitary Authorities.

The animal in question had been affected with Texan Fever or Redwater, and had been in a moribund condition before death. It was killed on a Sunday because of its evidently diseased condition, by order of the Veterinary Inspector of the Agricultural Department of the Privy Council.

The meat was ill-bled, the vessels congested, the flesh very dark in colour (almost chocolate brown) and the fat deeply bile-stained. The kidney fat was congested and red, and the carcass had not set properly. When the flesh was cut it was sodden and

soft, it smelt of urine, and there was moisture diffused in the connective tissue between the muscles, with patches of extravasation of blood here and there amongst it.*

On an application being made to a Justice for an order for the destruction of the carcass, the appearances above described were sworn to in evidence by five expert witnesses, every one of whom had had very large experience as experts in the examination of meat.

In opposition to our evidence, the owners called a wholesale butcher, who said he was a butcher of forty years' experience. The meat, in his opinion, was perfectly fit for food; there were no signs or indications of disease of *any* kind about the meat. He had himself eaten a piece of the raw flesh.

Another wholesale butcher of forty years' experience, also said he considered the beef was good and fit for food. He agreed generally with the first witness, but would hardly go so far as to say that the meat was really first class beef.

A medical man (a member of the Health Committee), also went into the witness box, and said he thought the meat was fit for food, but admitted he had not had much experience in meat inspection.

The Magistrate at this stage of the proceedings said "he would not trouble the defendants to call any more witnesses, as, after hearing the evidence given by such *practical, not merely scientific* witnesses, and considering such experience as that of the two butchers, he could not make an order for the destruction of the carcass."

And now comes the point at issue.

The Magistrate having refused to order the destruction of the carcass, the defendant butchers refused to take it back, and laid a claim against the Corporation for its full value, estimated at £18, and also for the amount of their costs in appearing before the

* I have described the appearance of meat affected with this disease in a paper published in the April number, 1893, of the "Journal of State Medicine."

Justice in opposing the application for destruction, stated to be £65 11s. 6d., or a total claim of £83 11s. 6d.

The Corporation repudiated all responsibility for the carcase, except so far as it had sustained damage whilst in their possession, and also repudiated all liability for costs, on the ground that the action was an *ex parte* action, in which the Defendants had no legal right to appear, except by courtesy; and, thirdly, on the ground that this was not a matter which Section 308 of the Public Health Act, relating to compensation, was intended to cover. And under any circumstances the Corporation contended that the expenses claimed were excessive.

The parties not being able to agree, the matter had, under Section 308, Public Health Act, 1875, to go to arbitration to be settled; and before the Arbitrators could arrive at a decision, the whole of the evidence had to be gone into again and the witnesses re-examined, each side appearing by Council, with a doubling of the expenses already incurred. These proceedings occupied two days.

The several questions raised being of an important and novel character, the Arbitrators and Umpire were asked that in making their award they would make it in the form of a special case which could be set down for argument before the Divisional Court of Queen's Bench.

The Arbitrators awarded as follows:—

1. That in the event of the butchers being entitled to throw back the carcase on the hands of the Corporation, and to claim its value in full, they were entitled to £11 instead of £18.

2. If not entitled to refuse to receive back the carcase, they were entitled in respect of depreciation to the carcase to £4 2s. 6d.

3. If the claimants were entitled to costs before the Justices, the Arbitrators assessed these at £29 18s. 6d. instead of £65 11s. 6d.

4. The Corporation were to pay the costs of the award, amounting to £27 3s. 6d., and each party was directed to bear their own costs of the reference.

This award having been set down as a special case, the Corporation appealed to the Divisional Court for a ruling in the matter, and the case was argued before Mr. Justice Wills and Mr. Justice Charles on the 19th April, 1893.

In giving judgment, the Justices commented upon the unsatisfactory manner in which the sections of the Act of Parliament were drawn, but in the end decided—

1. That the butchers had no right to refuse to take back the carcase, and were only entitled to the amount of the depreciation as awarded, viz.—£4 2s. 6d.

2. That the butchers were entitled to *full* compensation under section 308 of the Public Health Act, and should therefore be paid in respect of the costs incurred by them in the Police Court proceedings the sum of £29 18s. 6d.

(3) That the butchers were entitled to their costs in the special case, viz:—£47 6s. 2d.

In making this award, however, the Justices laid down another very important point. They said “It has already been decided that the defendant (that is, the butcher or other person from whom the meat has been seized) is not *entitled* to be heard upon the application to condemn the meat.” “It is clear that if the Magistrates were arbitrarily to choose to say, ‘I will not hear you, I am quite satisfied from my own inspection, or from what has been told me, or from any other reasonable way of satisfying myself, that in the language of the Act it appears to me that the meat is bad, and I do not want to hear you, and I will not hear you or your witnesses,’ it is clear that the condemnation might yet be good.”

But they further went on to say that it was natural that the Defendant in such a case should want to be heard, and to show the Magistrate that his meat was not bad, and also that it was only fair to him that he should be heard; and if the Magistrate, although he was not bound to do so, thought fit himself to hear the Defendant’s evidence, and it resulted in the

meat not being condemned, that *then* the Defendant is entitled to the costs of his attendance upon such an occasion, and that these costs ought to be included in the "full compensation" which Section 308 of the statute gives to them.

With the object of obtaining a *final* decision on the reading of the sections of the Public Health Act, the Corporation appealed from this judgment upon the question as to whether the words "full compensation" in section 308 could be held to cover the claimants' costs relating to the proceedings in the Police Court.

The appeal was heard on the 30th May, 1893, before Lord Esher, Master of the Rolls, Lord Justice Bowen, and Lord Justice Key, when the judgment of the lower Court was sustained, and the appeal was dismissed with costs. It will be seen that this decision places Sanitary Authorities in a very serious position, especially in such cases as Birkenhead, where some 5000 beasts are slaughtered weekly.

If any Medical Officer of Health or Inspector of Nuisances seizes a piece of meat, fruit, &c., and applies to a Justice for an order for destruction, they may be met by a whole array of witnesses, *expert or otherwise*, who may, and in many cases would so impress an ordinary Justice of the Peace that he would feel a doubt in his mind, and be unable to make an order in face of the evidence which could be put before him.

The Sanitary Authority would then have to pay all the costs of depreciation, or alleged depreciation, and perhaps an enormous amount in respect of costs incurred by the owner in opposing the application for destruction. And as the law now stands, unless the Sanitary Authority paid the *whole* claim, however extortionate, the only means by which the "full compensation" can be determined is by the very expensive, tedious, and unsatisfactory process of arbitration as described above, in which the Umpire might be a butcher or some other person interested in the points at issue, and possibly biassed accordingly. If therefore, the law is allowed to remain as it is at present, it will be seen there is a

very strong inducement for Sanitary Authorities to be very lax in the performance of their duties respecting the inspection of food, as in every case of seizure they are liable to be involved in very heavy expenses, which in some cases, especially the smaller Local Boards, they are very unable to bear. It is therefore clear to my mind that some alteration of the law is urgently called for, and I am of the opinion that that alteration ought to be in the direction of giving the Magistrate who had power to condemn the meat, the power also over any costs legitimately incurred in the proceedings taken by the successful party to defend himself against attack.

In this way a great deal of unnecessary expense would be avoided, and the method of procedure much simplified.

The unsatisfactory state of the law regarding this matter led the Health Committee to depute their Chairman, Deputy-Chairman and the Medical Officer of Health to attend the Annual Congress of the British Institute of Public Health held in Edinburgh during July and August, 1893, and bring the subject before that body for their consideration.

The Medical Officer read the above notes on the subject before the Congress, and at the end of the discussion which followed, the Chairman (Mr. Alderman Shaw) moved, and Mr. Alderman Hart, of Canterbury, seconded the following resolution, viz. :—

“Whereas under the existing law where a Local Authority
 “has made an unsuccessful application to a Justice for an order
 “for the destruction of meat &c., seized by their Inspector under
 “sections 116 and 117 of the “Public Health Act, 1875,” the
 “amount of costs incurred by the owner of the meat &c., in
 “opposing the application is determined by arbitration involving
 “great expense and delay. This Congress is of opinion that it is
 “desirable that such law should be amended so as to provide
 “that the amount of such costs (if any) shall be determined by
 “the Justice before whom the application is made or in some
 “other satisfactory mode.”

After full consideration the resolution was unanimously adopted by the Congress and copies ordered to be sent to the different Government Departments interested in the subject. One would have thought that a course so simple and just as that proposed in the resolution, would at once have received the support of the butchers; but the contrary happened, and they determined to oppose it to the utmost of their power both in and out of Parliament.

“Sale of Food and Drugs Acts, 1875 and 1879, and Margarine Act, 1887.”—The Chief Inspector of Nuisances (Mr. William Dawson) gives the following summary of proceedings taken under these Acts during 1893, viz.—

The total number of samples taken during the year was 109, viz., Butter 24, Cheese 1, Coffee 7, Lard 11, Milk 34, Vinegar 10, Arrowroot 6, Sweets 4, Mustard 3, Pepper 2, Sugar 2, Brandy 2, Whisky 2, Gin 1. Out of the above, 7 samples of Butter, 1 of Milk, and 2 of Vinegar, were reported adulterated, by the Public Analyst, and proceedings were taken in respect of all of these, the results of which are as follows, viz.—

Quarter Ending.		No.	Article.	Amount of Adulteration.	Penalty Imposed in addition to Costs.
March	31	257	Milk	12 per cent of water	£0 5 0
„	31	261	Butter	Margarine	1 0 0
„	31	262	Butter	Margarine	0 10 0
„	31	263	Butter	Margarine	1 0 0
„	31	264	Butter	Margarine	1 0 0
December	31	311	Vinegar	A mixture of acetic acid & water coloured.	1 0 0
„	31	326	Vinegar	A weak mixture of acetic acid & water.	0 10 0
„	31	339	Butter	Margarine	0 10 0
„	31	346	Butter	Margarine	2 0 0
„	31	349	Butter	Margarine	0 2 6

Bakehouses.—The duties involved in carrying out the provisions of the Acts relating to the Sanitary Condition of bakehouses have been put under a special Inspector, who also looks after the workshops in the Borough.

Very special attention has been paid during the year to the keeping of the bakehouses in a clean and healthy state, free from all effluvia from drains, privies, and other nuisances. Many sanitary defects have been discovered and remedied. Great

attention has also been paid to see that a proper water supply is provided for each bakehouse, and that efficient ventilation can be secured; whilst regular limewashing has been required and enforced in every case.

There has been a very great improvement secured by the systematical inspection carried out during the year.

The Milkhouses.—The regulation of dairies, cowsheds, and milk-shops, and the supervision of milk-sellers, has had systematic attention throughout the year. Special care is taken that the ventilation, lighting, cleansing, draining, and water supply of premises used for the milk-trade are thoroughly efficient. Towards the close of the year 1888 new regulations for the more efficient control of the trade were drafted, and these were approved and made by the Town Council, acting as the Local Authority for the Borough, on January 2nd, 1889. A copy of these regulations was appended to the Report for 1888, and printed copies are supplied free to dairymen, milkshop keepers &c. The register of milk-sellers is revised week by week. The total number of milkshops is 134, in addition there are 27 cowsheds, and 44 farmers resident outside the Borough, registered to purvey milk inside the Borough.

The Park Bowling and Quoiting Ground.—The public bowling and quoiting ground in Birkenhead Park, which was opened for the season on March 27th, was fairly well patronized during the year, and the total amount received in respect of bowls, quoits, and skittles being £60 1s. 3d. Eighty-four bowler's season tickets were sold at 5/- each, yielding £21. Beyond this the amount received for bowls was £25 12s., being the payments of 2,048 players at 3d. each. The amount received in respect of quoits was £12 12s. 5d., being the payments of 3,029 players at 1d. each. The sum of the receipts in respect of bowls and quoits was thus £59 4s. 5d., an increase of £4 13s. 11d., as compared with the receipts of 1892. The sum is a very favourable amount. The money taken from quoiters shows an increase of 73 per cent. on last year. The amounts received in each year since the opening of the ground in May, 1882, are as follows:—

	FROM BOWLERS—				£	s.	d.
In 1882	40	6	6
„ 1883	29	4	9
„ 1884	29	8	9
„ 1885	34	13	11
„ 1886	26	15	0
„ 1887	35	12	3
„ 1888	32	9	3
„ 1889	38	5	3
„ 1890	46	0	6
„ 1891	40	7	9
„ 1892	47	5	9
„ 1893	46	12	0
	FROM QUOITERS—						
„ 1882	16	13	8
„ 1883	15	1	4
„ 1884	16	14	7
„ 1885	18	13	1
„ 1886	8	17	1
„ 1887	9	1	1
„ 1888	13	12	11
„ 1889	11	14	8
„ 1890	10	9	4
„ 1891	6	10	1
„ 1892	7	4	9
„ 1893	12	12	5

The Skittle-alley.—Has been used during the season by 202 players paying 1d. each, the sum received being 16s. 10d., a decrease of £1 on last year's amount, and considerably less than on previous years.

Thurstaston.—On June 14th, the members of the Committee visited Thurstaston Common, for the purpose of making their annual inspection of the recreation ground and its boundaries.

The Public Baths.—The baths, situated in South Argyle Street, were better patronized in 1893 than in any previous year. During January and February the establishment was kept open from 8 a.m. to 7 p.m., during March from 7 a.m. to 8 p.m., from April to September from 6 a.m. to 9 p.m., during October from 7 a.m. to 8 p.m., and during November and December from 8 a.m. to 7 p.m. The money taken during the year 1893 amounted to £722 15s. 1d., being £137 8s. 8d. more than the money taken in 1892.

The highest amount taken for any single week was £39 14s. 1d. (for week ending August 20th). In the week ending December 31st the amount taken was lowest, being 18s. 0d. The number of bathers during the year 1892 was as follows:—

	Males.	Females.	Total
First-class Private Baths ..	543	13	556
Second-class do. ..	6351	235	6586
Large Plunge Bath ..	36612	602	37214
Small do. ..	—	7	7
Total ..	43,506	857	44,363

The sum of baths in 1892 was 35,003. The number of baths taken in 1891 was 33,237. Out of the 36,612 males using the large plunge bath in 1893, 1030 were boys from St. Peter's Schools, 1277 were boys from St. Werburg's Schools, 523 from St. Mary's Schools, 712 were boys from St. John's Schools, 1038 were "Shaftesbury" boys, 314 from Victoria Schools, 450 were from St. Catherine's Schools, and 434 were boys from the Gordon Guild Baptist Schools, admitted at specially low rates after the closing of the baths to the public on certain evenings, and on other evenings at hours agreed on.

Open Spaces and Recreation Grounds.—I would specially call the attention of the Health Committee to the desirability of securing a few open spaces in the centre of the more populous parts of the town, to be laid out as gymnasia and recreation grounds, for the benefit of the children who have to live in the narrow, ill-ventilated and often sunless courts and alleys which exist in the lower parts of the Borough. The benefits in the shape of improved physical stamina which would accrue to these children cannot be over-estimated, and must help to enable them to bear better the future struggle for life and reduce the pauper rate accordingly. The value of such open places of recreation is now fully acknowledged and requires no further demonstration here, but I would remind the Committee that the open spaces are being rapidly absorbed for building purposes, and will very soon have disappeared, never to be regained. I would most strongly urge, therefore, in the interest of the health of the poor, that an effort be made to secure at least one or two open spaces for this purpose.

Public Wash-houses.—The great benefits which public wash-houses give to the poor, especially to those who have to earn their living, and often support a family of young children, by means of taking in washing, is now getting to be generally recognized in most of our large towns, and in my opinion, ought to be adopted here at as early a date as possible.

When we consider the total unfitness, from a sanitary point of view, of a small cottage, for the carrying on of a laundry business, and the amount of dampness to the house, and general discomfort which it must cause to the children and other occupants of small kitchens in which the processes are carried on, it will be seen at once what an enormous boon a public wash-house offers to the smaller householders.

The amount charged for the use of a small separate compartment, with the necessary hot water, steam boiler, and other washing apparatus as provided in the modern public wash-house, must be much less than the cost of washing at home, besides being infinitely more clean and healthy, and thus enables a very deserving class of women to make ends meet more easily, whilst the children get better food, and a home free from the necessary steam and wet attendant on the house washing, and thus infinitely more comfortable. I would strongly urge upon the consideration of the Corporation, the desirability of providing these very useful and sanitary accommodations.

The Fever Hospital.—The old Fever Hospital in Livingstone Street, with its 23 beds, although totally inadequate to the wants of the Borough, has again had to serve for another year as our only means of isolating cases of infectious diseases. For six months it was closed to everything but smallpox, there being cases of that disease under treatment in the wards, and no other disease could be taken at the same time, owing to insufficiency of the air zone and inadequacy of accommodation for administration purposes. During this time I was repeatedly and constantly being requested by the medical practitioners in the town to give them isolation for urgent cases, but I was of course unable to do so; and these patients

had to be treated at their own homes, frequently with great risk to themselves and to the other inmates of the house.

The number of patients treated in 1893 was 93, a larger number than is recorded for any year with the exception of the years 1877, 1884 and 1890, when 94 were treated.

Out of these 93 patients, 4 died, giving a death rate of 4·3 per cent.; and when the difficulties are considered under which provision has had to be made for so large a number, it is very satisfactory to find how low the death rate has been, and what a very large percentage of recoveries has been made.

The ordinary nursing staff consists of a Lady Matron (Miss Yeomans) and four permanent nurses; but it was found necessary on several occasions to get in other temporary nurses, when the hospital was full of patients. Great credit is due to the nursing staff for the way in which they have carried out their duties, sometimes under very trying circumstances. The greatest number of patients under treatment at any one time was 22, viz., in the month of October, when we had three separate diseases in the hospital.

The following table shows the number of patients admitted, the number of deaths, and the per centage of deaths for each year since the opening of the Hospital in 1876.

Year	Number treated	Number of deaths	Mortality per cent.
1876	24	4	16·6
1877	194	27	13·9
1878	45	5	11·0
1879	30	1	3·3
1880	45	3	6·6
1881	36	9	25·0
1882	86	16	18·6
1883	70	9	12·8
1884	121	15	12·4
1885	55	3	5·4
1886	45	5	11·0
1887	56	11	19·0
1888	65	3	4·6
1889	18	..	..
1890	94	14	15·0
1891	47	15	32·0
1892	81	11	13·5
1893	93	4	4·3
Total since opening	1205	155	12·8

Particulars as to the localities from which the patients were derived in 1893, and the diseases of patients received from each locality, are given in the following table.

1893.

LOCALITIES	Smallpox	Measles	Scarlatina	Diphtheria	Typhus Fever	Typhoid Fever	Continued Fever	For Observation	TOTAL.
	Cleveland Ward	5	..	6	1	2	5	1	4	24
Grange	4	1	17	9	2	6	..	..	39
Argyle	4	..	..	..	..	4	..	..	8
Egerton	1	..	2	1	..	..	..	..	4
Clifton .. .. ..	..	..	5	..	..	5	..	..	10
Mersey .. .. ..	..	..	..	..	..	..	..	..	..
Bebington	1	..	2	..	..	..	..	..	3
Cloughton .. .. ..	..	..	..	..	..	1	..	..	1
Oxton .. .. ..	..	..	1	..	..	3	..	..	4
Total	15	1	33	11	4	24	1	4	93

It will thus be seen that of the patients treated in 1893, thirty-nine or nearly 42 per cent. were from Grange Ward.

Particulars as to results are given in the next table:—

DISEASES	M.	F.	Re-covered		Died		Re-moved	
			M.	F.	M.	F.	M.	F.
Small-pox -- { remaining ..	1	..	..	..	..	..	..	..
{ admitted ..	9	5	9	5	1	..	..	..
Measles	1	..	1	..	..	..	..	..
Scarlatina	15	18	14	18	1	..	..	..
Diphtheria .. ..	..	11	..	11	..	..	..	..
Typhus Fever ..	1	3	1	2	..	1	..	..
Typhoid Fever { remaining ..	1	..	1	..	..	..	..	..
{ admitted ..	11	12	11	11	..	1	..	..
Continued fever ..	1	..	1	..	..	..	..	..
Sent in for observation for Small-pox	1	3	..	..	..	..	1	3
Total	41	52	38	47	2	2	1	3

Thus out of 93 patients 4 died—a mortality of 4·3 per cent. Of these deaths one was due to each of the following diseases, viz:—Typhoid Fever, Typhus Fever, Scarlatina and Small-pox.

Charge for Maintenance in the Fever Hospital.— The abolition of fees for maintenance has proved most beneficial as regards the working of the Hospital. There is not nearly so much difficulty experienced in persuading people to let their children be removed, and thus we have been enabled, in many cases, in crowded localities, to get the rooms disinfected at once, and thus stop at the commencement the spread of infection.

A comparison of the number of cases admitted into the Hospital with the number notified, shows that thirteen out of every fourteen cases are not isolated under the present circumstances, and shows how urgently the new Hospital is needed.

At one period of the year we had six classes of infectious disease at the same time in the town, viz., Small-pox, Diphtheria, Scarlatina, Typhus Fever, Typhoid Fever and Measles. And I am strongly of the opinion that separate provision for at least four diseases, and for the two sexes, together with an observation ward for doubtful cases (which constantly arise), is the least accommodation which can safely be provided for a town of the size and geographical position of Birkenhead.

Proposal for a New Hospital.—In my last year's report I gave a full account of the different steps which had been taken up to the end of the year 1892 with regard to providing a new Hospital. At that time it seemed likely that the scheme then before the Council would have been adopted and the building in working order by this date, but the course of events proved otherwise.

On the 24th of January, 1893, the late Borough Surveyor (Mr. T. C. Thorburn) submitted working plans &c. of the proposed hospital, on which a "bill of quantities" could be taken out and an estimate of the cost be made, and it was resolved by the Committee and subsequently confirmed by the Council, that such an estimate should be taken out.

Early in February, however, on Mr. Brownridge's appointment as Borough Surveyor, he was requested to consider the plans and specifications, and at his suggestion certain alterations were made.

On the 14th February, Mr. David Lyon, of Liverpool, was appointed Quantity Surveyor for the buildings.

On the 3rd of April the Committee considered the estimated cost of the buildings, viz., £20,500, and resolved that the plans be approved, and that tenders be invited by advertisement for the erection and completion in accordance with such plans of the following parts of the proposed new Hospital, viz.—

The Administrative Block.

Four Double Wards of twelve beds each.

One Private or Observation Ward of eight beds.

The Laundry and Disinfecting Block; and

The Mortuary.

Subject to the sanction of the Local Government Board to the necessary loan,

A Special Meeting of the Council was called to consider this resolution on the 12th of April, when the proposal met with considerable opposition on the ground of expense. The resolution of the Committee was, however, carried by 16 votes to 15, a majority of 1, and the Committee resolved to go on with the work.

In the meantime, on the 2nd of May, the opponents to the scheme convened a Town's meeting of ratepayers and owners to object to the scheme being gone on with, and a motion was then carried by a very large majority against the proposals of the Health Committee.

At the Council meeting held on the 12th of May, a letter from the chairman of this public meeting was read, with the resolution passed thereat. It was afterwards resolved by the Council, by 22 votes to 19, to rescind the resolution passed at the special meeting of the Council held on the 12th of April approving of the plans of the Hospital, and the Health Committee were asked to reconsider their proposals.

On the 16th of May the Committee reconsidered the plans, and recommended that a modification of their former scheme

should be adopted, leaving out certain portions of the buildings to be again added when necessity should arise. Subsequently, however, they again considered the matter on the 30th of May, and resolved:—

“That the erection and completion of a New Infectious Diseases Hospital, at a total cost of not exceeding £11,400 be proceeded with, containing three wards of twelve beds each, one Isolation Ward, Laundry, Disinfecting House, Mortuary &c., and an Administrative Block.”

“Also that the Borough Surveyor (Mr. Chas. Brownridge) be instructed to alter the plans at present in existence accordingly.”

These resolutions were approved by the Council on the 7th of June, 1893.

On the 28th of June, the Borough Surveyor submitted to the Committee an entirely new set of plans for the Hospital, and it was resolved that they be approved. Also that a bill of quantities should be taken out and tenders obtained by advertisement for the erection of the buildings. It was further resolved: “That application be made to the Local Government Board for sanction to borrow a sum of not exceeding £11,400, for the erection of the buildings, and a sum of £4,000 for the costs already incurred in connection with the walling and preparation of the site at Flaybrick Hill.” These resolutions were confirmed by the Council on the 5th of July, 1893.

The plans were submitted to the Local Government Board, and met with their approval without alteration. On the 26th of September, it was resolved by the Committee: “That the tender of Messrs. Kelly Bros., of Liverpool, to erect and complete the New Hospital for the sum of £10,594 19s. 0d., be accepted.”

This resolution was confirmed by the Council on the 4th of October, and thus ended the controversy and long delay in connection with the provision of proper hospital and isolation accommodation for fever patients in Birkenhead,

The New Hospital.

The Site.—The site chosen for the Hospital is situated in a very excellent position at the extreme north-western boundary of the Borough, on a portion of Flaybrick Hill.

It contains an area of some $5\frac{1}{2}$ acres, and the ground rises from the entrance gate in Tollemache Road by a gradual incline towards the west-north-west to an extreme height of 112 feet above low water mark, the height at the entrance gate being 83 feet above that level.

The western and northern sides of the site are bounded by a precipitous rock, which thus affords a very excellent natural barrier to intruders on that part of the ground.

Looking towards the west, beautiful views are obtained over Bidston Moss and Wallasey Sands to the Irish Sea beyond. The entrance to the River Mersey is distinctly seen, whilst the ever changing vista of light and shadow on the water and foreground, lend additional charm to a naturally beautiful picture.

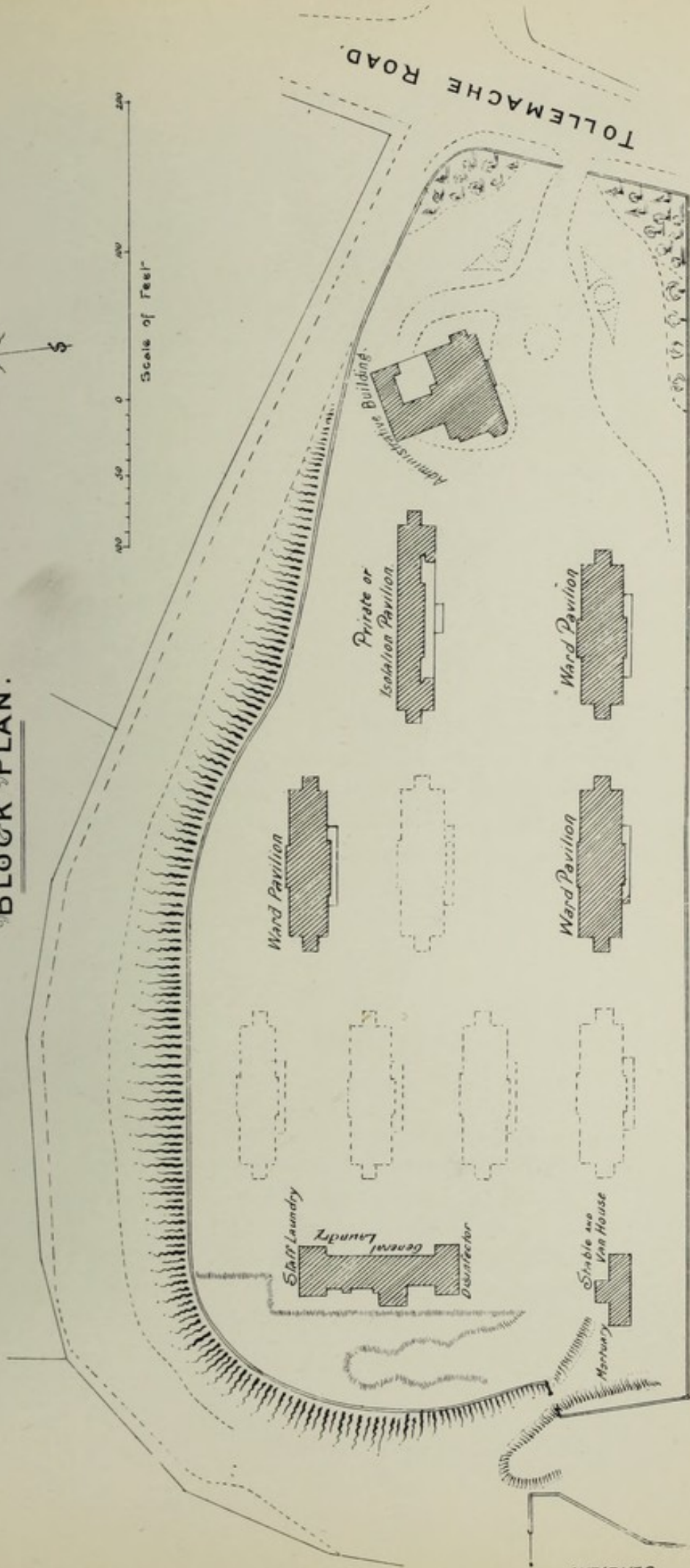
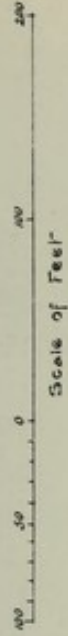
Turning round and looking towards the south-east, a sort of "bird's-eye view" is obtained of a large portion of the town. On the left the line of docks is seen with masts and sails and every variety of shipping, running in a continuous line, forming the northern boundary of the Borough, whilst St Anne's Church spire is prominently seen in front, and in the extreme distance the Town Hall dome, flanked by the square red tower of the Mersey Railway, and supported by the ancient and graceful spire of St. Mary's Abbey Church, stands out in bold relief, against a background of sky. A small cloud of bluish smoke hangs lightly over the humbler house tops below, rounding them off and giving picturesqueness to the whole.

The site is essentially a sunny one, affording excellent ground for convalescents to regain their strength; whilst a substantial stone wall running round the plot, protects the patient and prevents the objectionable gaze of any inquisitive stranger.

The Buildings.—The Hospital when completed will give accommodation to the extent of 104 beds; and will consist of an

BOROUGH OF BIRKENHEAD
Corporation Hospital for Infectious Diseases.

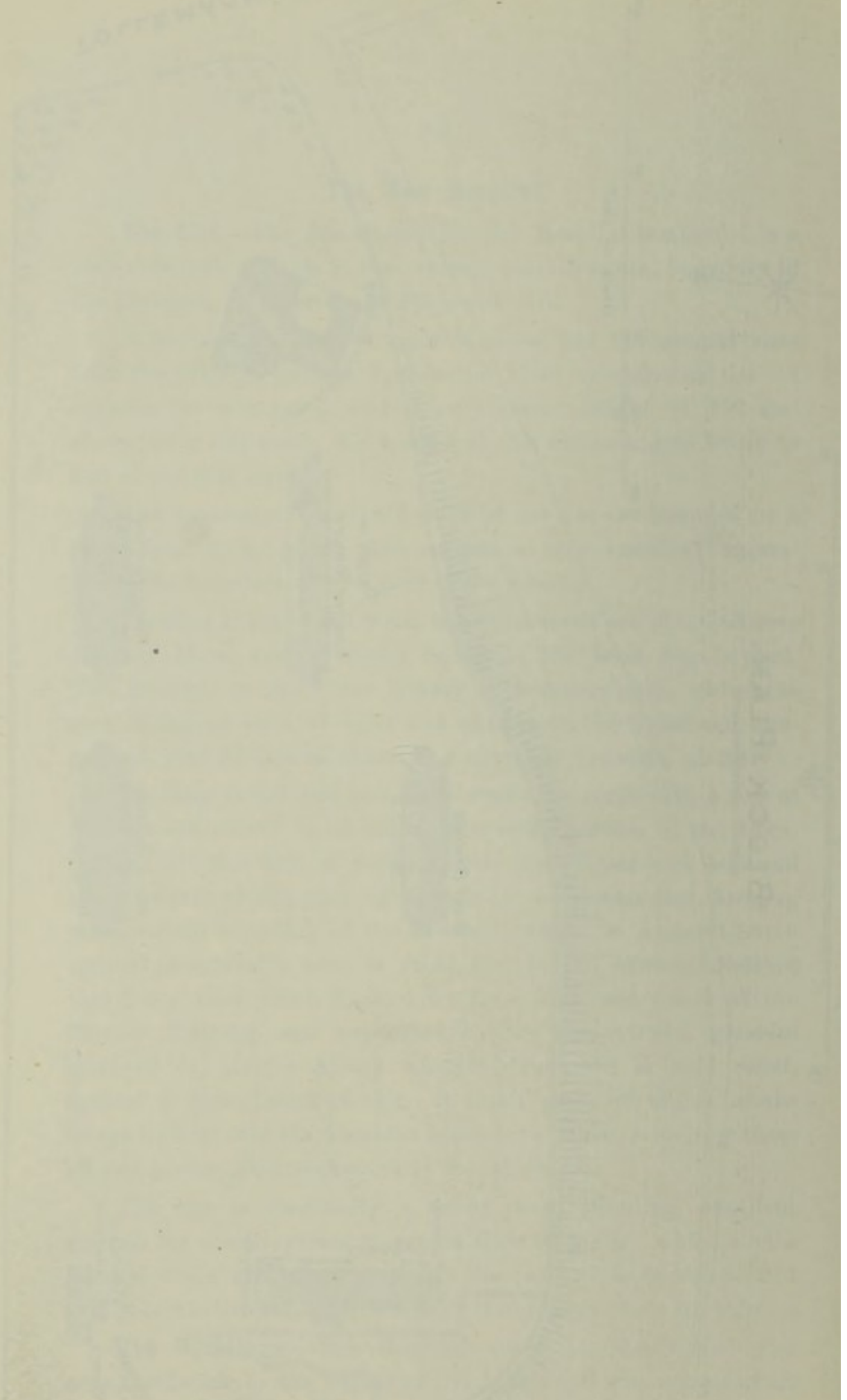
BLOCK PLAN.



John Bromwich
 BOROUGH ENGINEER & SURVEYOR.

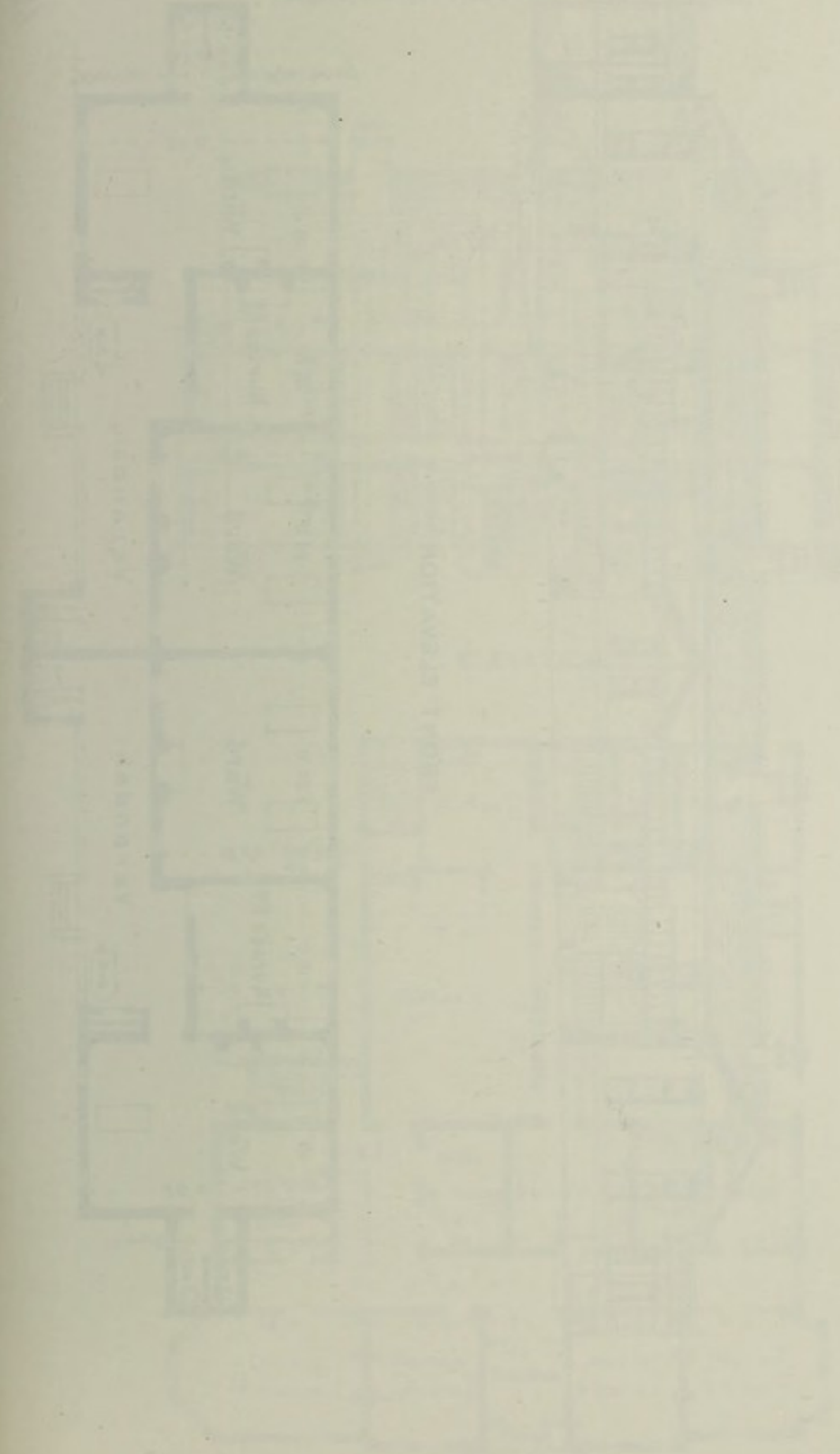
FLAYBRICK HILL
 CEMETERY

ЛОТЕНЧУНСКОЕ ОЗЕРО



ВЕРХНЯЯ ПЛОСКОСТЬ

ADMINISTRATIVE BUILDING

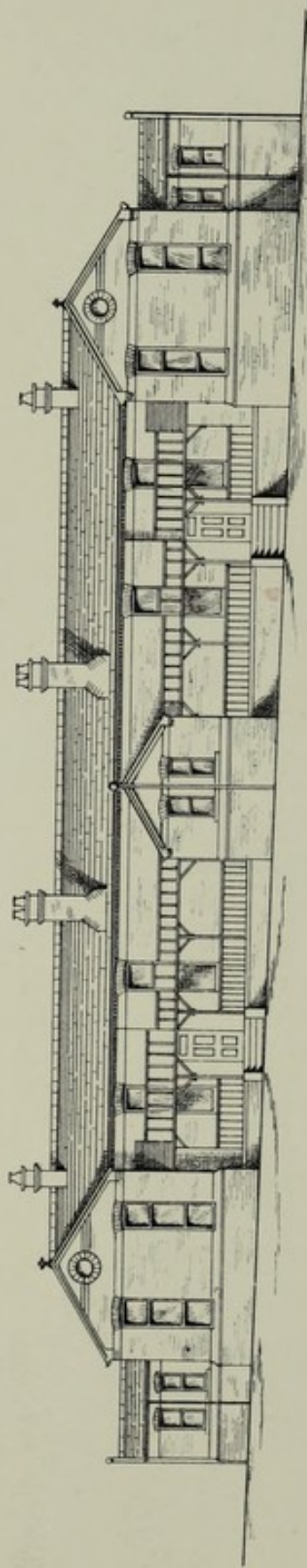


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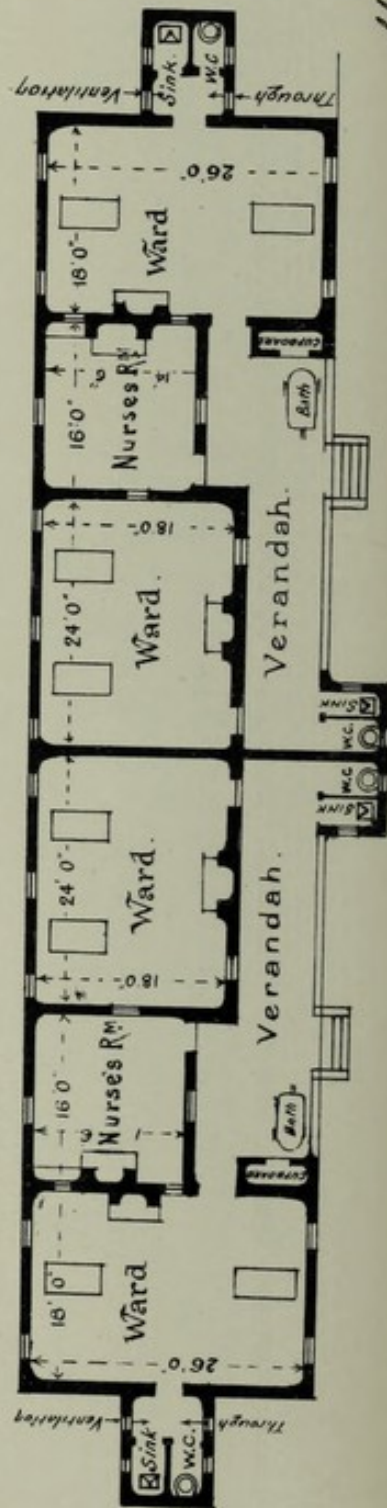
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BOROUGH OF BIRKENHEAD
Corporation Hospital for Infectious Diseases.

ISOLATION PAVILION.



FRONT ELEVATION.



GROUND PLAN.

John Brownidge

BOROUGH ENGINEER & SURVEYOR.

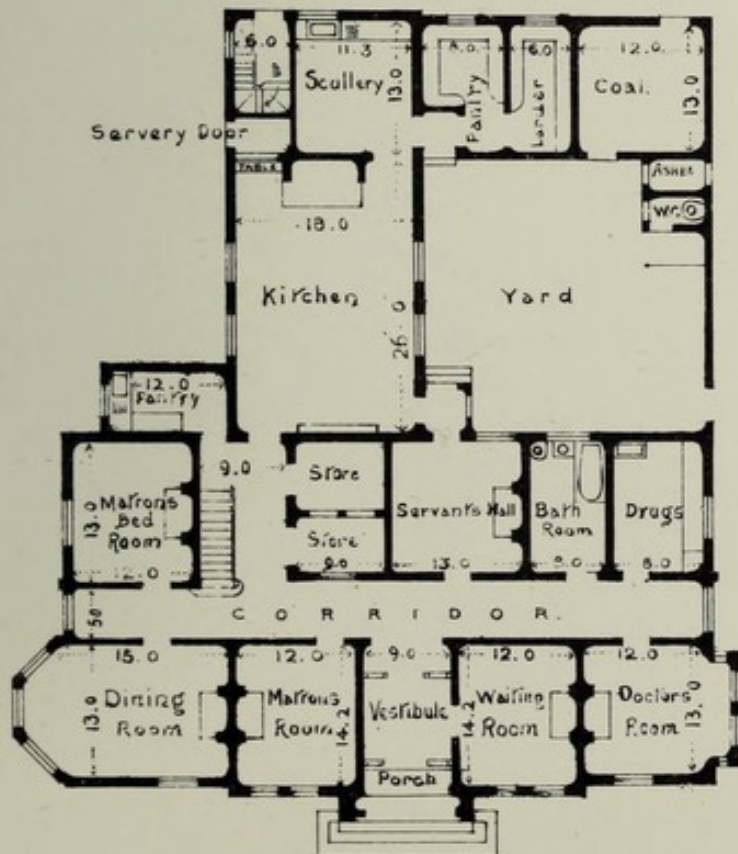
BOROUGH OF BIRKENHEAD

Corporation Hospital for Infectious Diseases.

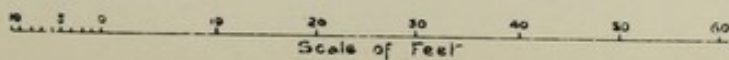
ADMINISTRATIVE BUILDING.



ELEVATION.



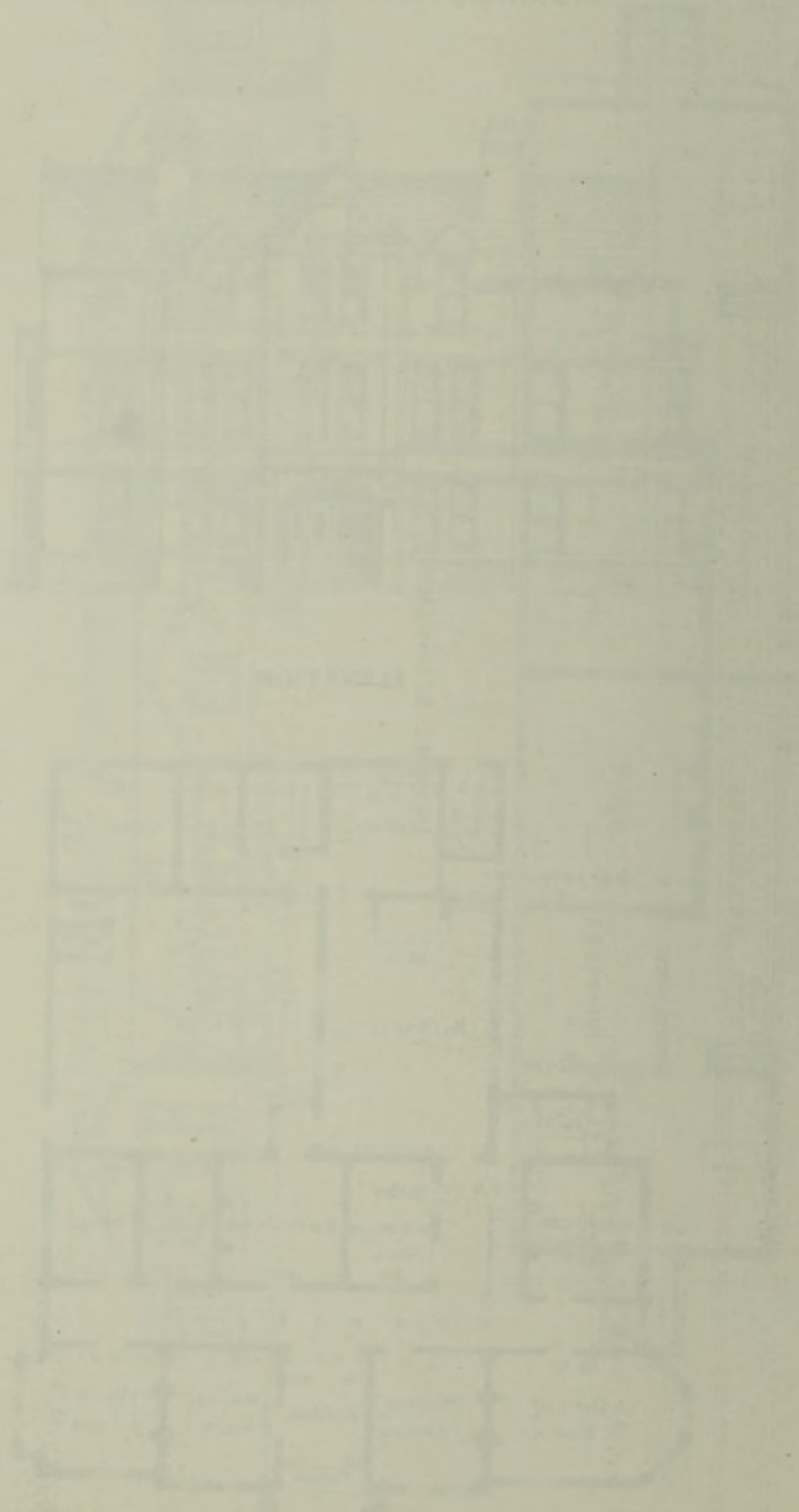
GROUND PLAN.

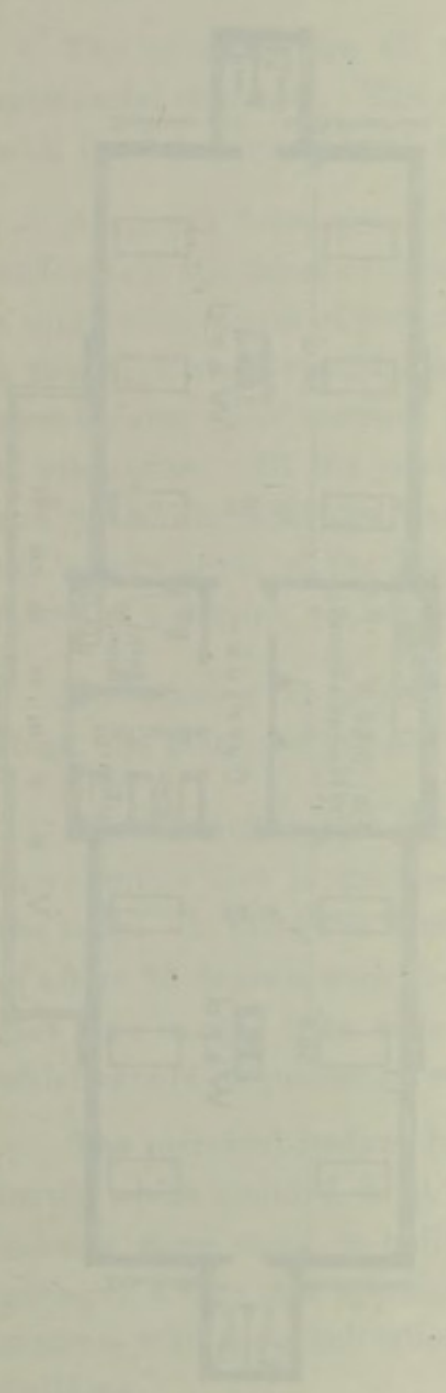


Chas Brownidge

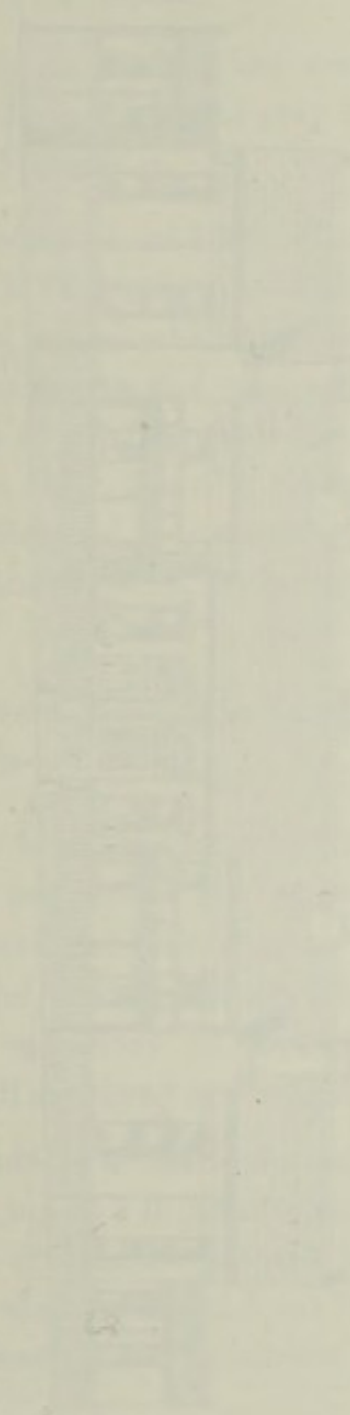
BOROUGH ENGINEER & SURVEYOR.

ADMINISTRATIVE BUILDING





ПОЛЪТЪТ НА ПЪРВОТО ЕТАЖ



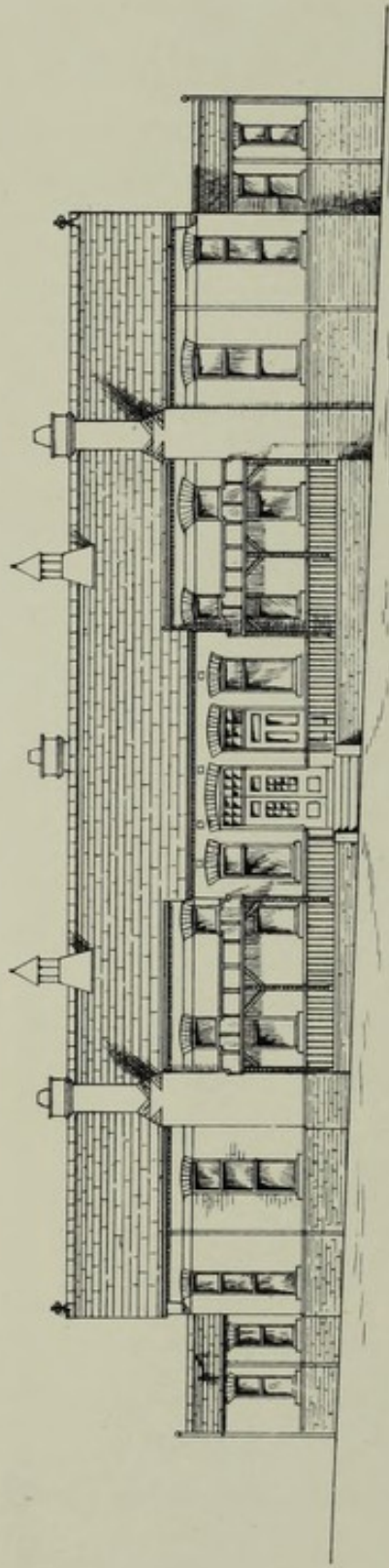
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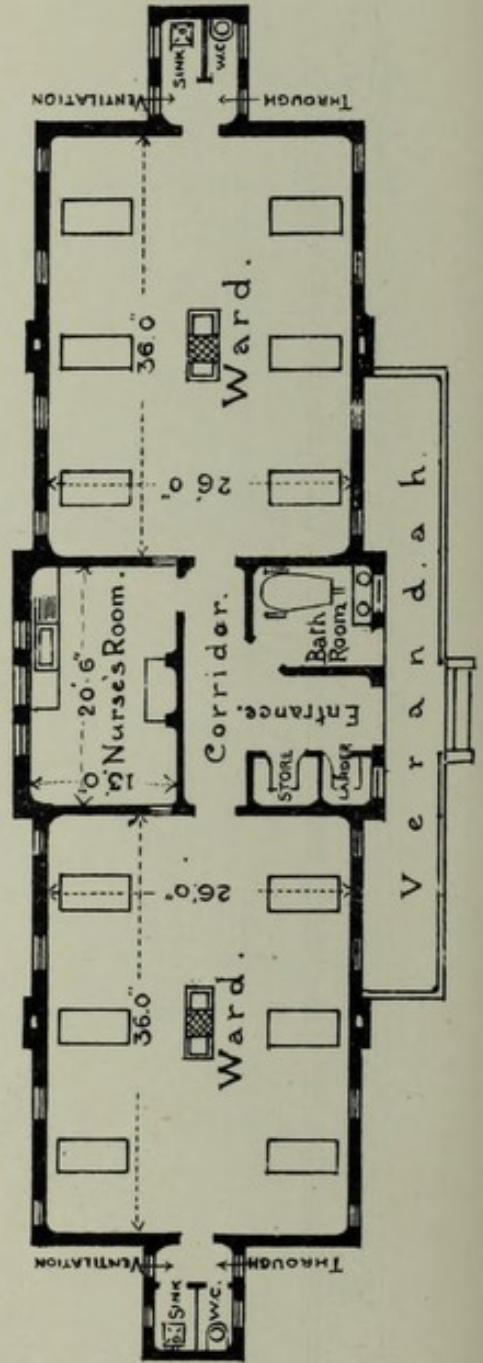
ПРОЕКТА НА ВЪВЕЖАТЕЛНОТО ЕТАЖ

BOROUGH OF BIRKENHEAD
Corporation Hospital for Infectious Diseases.

WARD PAVILION.



FRONT ELEVATION.



GROUND PLAN.

Scale of Feet
 0 10 20 30 40 50 60

John Brownidge
 Borough Engineer & Surveyor

administrative block, an observation or private ward pavilion, eight ordinary ward pavilions, laundry, disinfecting house, mortuary and *post-mortem* theatre, and a van house.

The buildings are all very simple in design, but are of a substantial character. The walls are formed of local grey bricks with Ruabon pressed brick strings and dressings.

A special damp-proof course is inserted, and the air space underneath the floors of all the wards is thoroughly ventilated by a continuous course of perforated blue bricks, which thus insures a thorough cross-ventilation under the joists, and also acts as a second damp-proof course. The floors of all the wards are made of pitch-pine. All the pavilions have their fronts to the south; and the whole buildings have been designed in conformity with the requirements of the Local Government Board, with regard to floor and air space, air zones &c.

On entering the ground by the front gateway in Tollemache Road, the first building one comes to is—

The Administrative Block.—This is a handsome building of three stories high to the front, with a one storied kitchen wing at the back. It faces the south-south-east and stands at an angle of about 30 degrees with the line of the ward buildings which all face due south, thus relieving the monotony of arrangement which would be presented were they all arranged in straight lines.

The principal feature in the façade is a handsome entrance porch, which situated as it is at the top of a flight of some half-a-dozen stone steps, is built entirely of Ruabon pressed bricks, giving it a very rich appearance, and making it stand out in bold contrast with the much quieter treatment of the remainder of the building.

The position occupied by this block is about the best that could have been selected, as it entirely commands a view of the entrance to the Hospital, so that no one can go by it without observation.

On entering by the front door you find yourself in a vestibule of 9 feet square, shut off from the rest of the building by a pair of glass doors; and leading out of this on the right hand side is the waiting room for the reception of patients' friends or other enquirers. Passing into the house through the glass doors, you find yourself in a corridor running the whole length of the building, on each side of which various rooms are situate. These consist of the Matron's sitting and bedrooms, Nurses' dining room, the Physician's sitting room, bath room and w.c., Surgery, servants' hall, pantry, store rooms &c.; attached to these is the one-storied wing, consisting of a kitchen, scullery, pantry, larder, coal house &c., there is also a porter's room with separate entrance from the outside; and situated over the scullery—this portion being raised to a second storey to get the necessary accommodation, a window opens from the kitchen into a covered porch or servery door, where the food can be served out for distribution to the wards. The kitchen is lighted by a top light as well as by side windows, and opens on to an excellent walled-in back yard.

On each of the two upper floors there are nine bedrooms, these being so arranged as to correspond with the rooms below, one being over the porch, and the ones situated over the dining room being double-bedded rooms in each case; whilst the space over the servants' hall is divided on these floors in such a manner as to give a bathroom and lavatory, w.c., and linen closet. The stair-cases are all constructed of York stone as a greater safeguard against fire.

It will thus be seen that sleeping accommodation is provided for ten nurses and ten domestics, in addition to the matron's rooms. This is just about half the accommodation which will be required when the whole of the Hospital is completed, but the arrangement of the building is such that a wing can easily be added at the eastern end of the block should occasion for it arise.

The Ordinary Ward Pavilions.—Each of these (of which three are for the present to be erected) consists of two wards—male and female—with the nurse's room or ward kitchen in between.

Each ward gives accommodation for six beds, and is warmed by means of a Shorland's warm stove fixed in the middle of the ward; whilst ventilation is obtained by air bricks in the wall, hoppers in the upper parts of the windows, and exhaust ventilators in the roof. Latrines with w.c. and slop sink are attached to each ward.

On the south side of the pavilion a verandah extends about half of its length, which adds much to the general external appearance, and at the same time affords an excellent place in suitable weather for convalescents to enjoy fresh air and sunshine, whilst sheltering them from the wind. The entrance to the building is also on this side, and opens upon the verandah. Immediately on the right of the main doorway, with a separate entrance from the outside in addition to one from the inner corridor, is the Receiving and Bath room. Here the new patient is admitted, and if necessary cleansed and bathed before entering the ward, and here also he is disinfected before leaving the Hospital. The room is fitted up specially for this purpose with wash-basins, movable bath and all other necessary appliances.

To the left of the entrance door, each pavilion has a small larder and linen store. The baths, wash-basins and sinks are all supplied with hot water from a boiler at the back of the fire in the ward kitchen.

The Observation and Private Ward Pavilion.—This is for the reception of paying patients requiring special accommodation and attention, for which a definite charge is made; and also for the treatment of any case in which the nature of the disease has not sufficiently developed itself to show into which ward it should go, and which therefore for a time requires keeping under special observation.

The block is composed of four small wards, each accommodating two beds; between each pair of these wards is placed a nurse's room or ward kitchen, fitted with all necessary requirements.

Attached to each ward is a separate w.c., slop sink, and a small larder; and a verandah runs along a part of the south side of the building, as in the ordinary ward pavilion.

A movable bath stands on the verandah attached to each pair of wards, which can be filled and wheeled into either ward as required.

The two pairs of wards are completely separated from each other by a dividing wall, which thus enables two diseases to be treated in them at the same time with perfect safety.

This set of small wards will probably prove one of the most useful and valuable parts of the whole Hospital.

The Laundry Block.—This is placed at the upper end of the site, and consists of a staff laundry and general laundry; both of these are fitted with hand washing machinery, the steam being supplied by a 12-H.P. horizontal boiler.

A Disinfecter—Is also included in this block.

The Mortuary.—This is situate at the south-western corner of the site, and is so arranged that when required, inspection for identification of any body, without danger to the relatives of the deceased, can be made at any time by looking through a window. A *post-mortem* room is also attached to the building. A two-stalled stable and a shed for the ambulance and disinfecting vans is likewise placed at this corner of the ground.

The amount of the accepted tender for the erection of the administrative block, observation ward, and three ordinary wards, together with the laundry, mortuary and stables, was £10,594 19s., exclusive of the price of the ground, levelling, walling, draining, and putting in of gas and water.

The Disinfecting House.—Good service continues to be rendered by the Disinfecting House. Mattresses, palliasses, beds, pillows, bolsters, woollen clothing, and fabrics from infected rooms are brought here and disinfected by heat. The bedding and clothing are fetched and delivered by the Corporation officers in light covered vans provided for the purpose. Occasionally, when the bedding is exceptionally foul, it is destroyed at the disinfecting house furnace, and replaced or allowed for at the cost of the Authority. There is a man specially appointed to take charge of

the apparatus; and a disinfecting inspector to supervise the disinfection of premises, the removal and delivery of bedding &c.

The apparatus, which is one of Messrs. Goddard, Massey & Warner's "Nottingham Patent Steam Disinfecting Apparatus," was erected in 1891, and a full description of it was given in the report for that year. It does not therefore call for any special notice here, and it is only necessary to say that it has been found in practice to be thoroughly efficient in its working.

Bidston Hill.

The year 1893 will be a notable one in the history of the Borough, if only for the purchase of Bidston Hill as a recreation ground. The importance of the acquisition of this open space, to the well-being and health of the town, cannot be over-estimated. Such open spaces are the only true corrective to the ill effects inseparable from a dense aggregation of human beings upon a limited area.

The position of the Hill is unsurpassed in its advantages for the purposes of a public park, and with the single exception of Arthur's seat, near Edinburgh, is probably unequalled.

It is situated to the west-south-west of the Borough, just immediately outside the boundary, and at a distance of $2\frac{3}{4}$ miles by road from the Town Hall, and a little under $2\frac{1}{2}$ miles as the crow flies. It is easily accessible from all parts of the centre, west and northern parts of the town, good roads leading to it from every direction.

The Hill itself is of sandstone rock, covered with gorse and heather, and skirted on its western edge and south-east corner with trees, which cluster together into small woods, and add much to the beauty and charm of the place.

The extreme height of the Hill is about 300 feet above sea level, and on the topmost point are situated the Liverpool Observatory and New Lighthouse belonging to the Mersey Docks and Harbour Board. At the southern end of the ridge

stands the ancient "Old Wind Mill"* which for centuries has formed a prominent landmark for many miles around, as well as to sailors navigating the approaches to the Mersey.

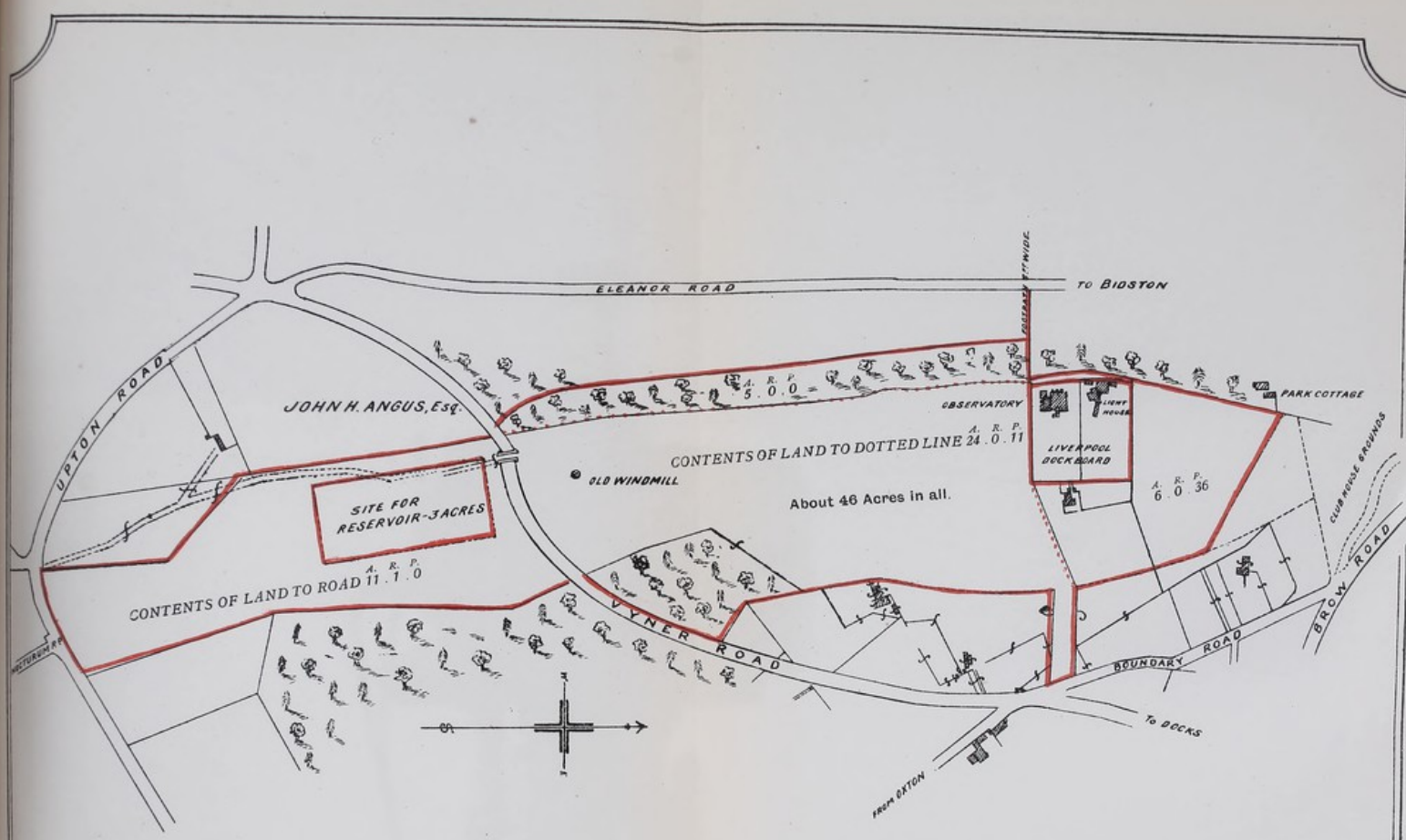
At the end of the eighteenth century and beginning of the present, there was a flag station here for signalling, by this means to Liverpool, the earliest news of ships coming up the Channel, and belonging to the different Liverpool merchants. Each shipowner had his own flags, which were displayed on a row of upright flag poles, the sockets of which may yet be seen. Pictures of these flag poles may be seen on old almanacks, and on many pieces of old Liverpool printed pottery made at that time, though now they are somewhat rare.

Entrance is obtained to the ground on the eastern side by a broad path, opening on Boundary Road, at a point where the roads from Oxton and Claughton, and from the district around the Docks join; another entrance is obtained at the extreme southern end on Upton Road, whilst a steep path leads up from Vyner Road at a point near the windmill.

On ascending the Hill we soon reach the crest of the rock, when magnificent views present themselves to the spectator. The first inclination is to look directly to the west-north-west, where within two miles the Irish Sea is seen stretching out to a far distant horizon, and on a clear day, even the Isle of Man may sometimes be descried.

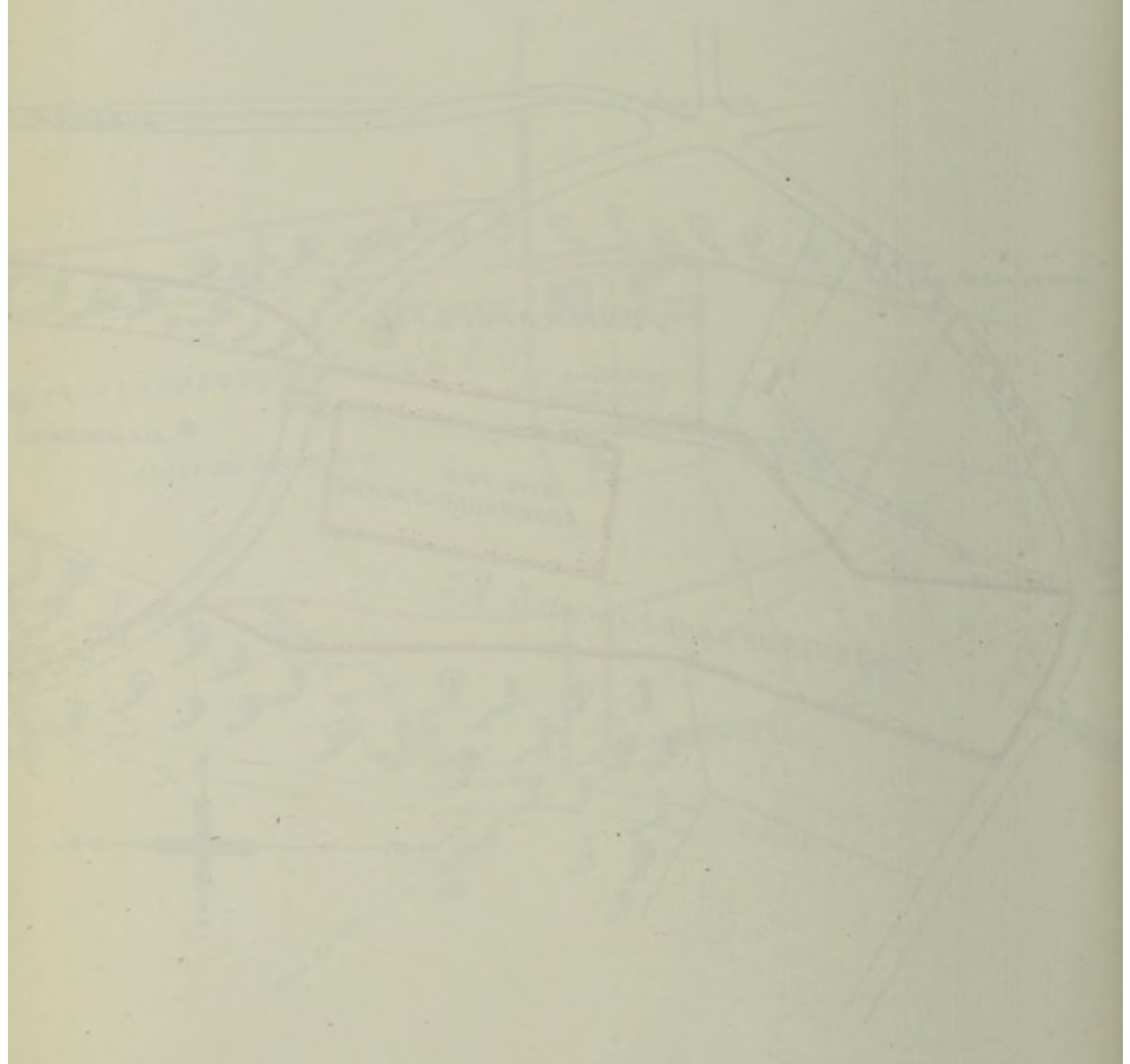
In the immediate foreground lies Bidston Moss, with the quaint old village and its venerable Church, the ancient square tower of which lends interest to the scene. Whilst in the distance, over spire and farm, hedgerow and furrow, lie Moreton and Upton, and many a place beyond; and further still, a streak of sand marks the coast-line of Wirral, from New Brighton to Hoylake, forming a distant barrier to the sea. Immediately on the shore, appearing but a short space distant, stand the "Old Lighthouse," and Leasowe Castle, nestling down, as it would seem, amongst the breaking waves.

*Mentioned in a Lease of 1609.



PLAN OF BIDSTON HILL,
 SHEWING LAND PURCHASED AS
RECREATION GROUND.

E. GRIFFITH & SON, CHROMO PRINTERS, BIRKENHEAD.



PLAN OF BIDSTON HILL

NEWCASTLE-ON-TYNE

STATION GROUND

Towards the north the entrance to the estuary of the Mersey is plainly visible, and the coast of Lancashire is seen stretching its varied line to Southport and the Ribble mouth.

Towards the east we find a different picture. On one's left, the sandhills and high ground of Wallasey and Liscard obscure for a space the river at their back, which further east again appears as a silver streak dividing Liverpool from Birkenhead, which as seen from here might be but one large town, whilst domes and towers and spires stand out in prominence from amongst the mass of humbler buildings—warehouse and dwelling—crowded together on the river's banks, with here and there a mass of masts and shipping marking the Docks, and over all, may be a flimsy cloud of smoke rounds off the contours, adding to the picture. The river then dipping to southwards, broadens out, and studded with ships and craft of every kind, is lost to sight in the far distance on the Cheshire shore.

In front and on one's right lies Birkenhead, a bird's-eye view of which is seen as on a map, whilst the Great Float stretching its length, covered with ships, marks the Town boundary on its northern side.

But there is yet another view far grander still, towards the south and west. The spectator looking in this direction, sees far before him, a lovely valley with downs and commons and green woods stretching to the banks of Dee, the course of which can be distinctly seen—though not the water, as the ground forming the banks is raised too high, until the river joins the sea at Hilbre Island. And far beyond the Welsh hills stand, with every tint of light and shade that sunbeam gives on varying rock and foliage, whether glittering in the rosy gleams of morn, or lighted by the golden tints of setting sun; whilst mist and cloud, shrouding the hills, render them vast and grand by dim uncertainty, and give a charm of infinite variety to an ever-changing vista. It was on this spot that Turner "the true painter of mist and cloud, of air and distance," loved to sit, and from which some of the grandest

compositions of his brush have taken inspiration. Here may be seen far, far away in distance, the mountain ranges in which are Moel Siabod and Snowdon and Penmaenmawr; and further to west the Little and Great Ormsheads, run into sea in dim horizon. A spot like this gives health and strength of mind as well as body, such as can not be over-valued; hence, as I said before, the year that added such a place as free and open for all time, must mark an epoch in the history of the town.

The land to be taken measures some six and forty acres, or a trifle more, including six acres or thereabouts, of wood on the western slope and south-east corner.

For many years efforts have been made, from time to time, to effect its purchase, but have always failed. In 1883, the outskirts of the Hill were beginning to be used for building sites, and the Corporation then opened negotiations with the owner for the purchase of the place, and put it in their Bill, which ended in the Act of 1884; but the clause was dropped, and the matter remained in abeyance until the Queen's Jubilee year, 1887, when there was again some talk of public subscription for buying it, to make a public memorial of the year, but nothing came of the proposal. In 1892, the Town Council again revived the scheme, and in July resolved to negotiate for a portion of the crown of the Hill, and the Town Clerk was instructed to communicate with Mr Vyner's agent, a sum of £4,000 or £5,000 being mentioned.

In April, 1893, the public took the matter up, and urged the Corporation to buy. A body of gentlemen was formed to work the scheme, and a subscription list was opened. The Press in Liverpool and Birkenhead wrote strongly in favour of the project; and thus the plan began to take a definite shape. In May, the Town Clerk reported on several different schemes for different parts of the property, and on June 7th, the Council adopted one of these, namely, to purchase about 24 acres at 1/- per yard, on the crest of the Hill. They limited the amount to be spent, however, to £5000, and to buy as much as they could for this sum.

On October 4th, the Council directed that application be made to the Local Government Board, to sanction the borrowing of the amount for this purpose. Several public meetings were then held, and much interest was taken in the scheme, both in Liverpool and Birkenhead, and many persons generously subscribed to the purchase fund. Before the close of the year, the Committee representing the subscribers, felt themselves in a position to purchase almost the whole of the open part of the Hill, and to supplement the sum of £5,000 voted by the Town Council, by another sum of £7,100 for this purpose. When all is completed, the land is to be conveyed to the Corporation of Birkenhead, as a public recreation ground for ever.

I cannot pass from this subject without making special mention of the very generous way in which the Lord of the Manor, Robert Charles DeGrey Vyner, Esq., has acted throughout these transactions. It should be known and appreciated to what extent Mr. Vyner has benefitted the public.

I gather from the newspaper reports of the Local Government Board enquiry in respect to this matter, that Mr. Vyner's first step was to get three independent valuations of the Hill, he then took the lowest of these, viz., £300 per acre, reduced this by 20 per cent. or £60 per acre, *as his contribution*, and sold the land to the Corporation at the reduced price of £240 per acre, in the most generous manner.

But Mr. Vyner has done more, for years he has allowed the public to roam at pleasure over the place, watching it at his own cost. He might have sold the ground for a good price, but at personal sacrifice, he has allowed the public to buy at the low figure mentioned above. He has played the part of a public benefactor to the present generation, but the boon will be far greater to posterity.

The accompanying plan shows at a glance the extent of the ground in question.—

Refuse Destructors.

In my last year's report, I pointed out the difficulties which had been experienced in meeting with a suitable site for the erection of a Refuse Destructor in the north end of the Borough; and also how the Tranmere site for the south end Destructor had received the sanction of the Local Government Board. Further that a contract had been entered into with Messrs. Manlove, Alliott & Co., of Nottingham, for the erection of a Destructor on this latter site, for the sum of £7,851, subject to the sanction to the necessary loan by the Local Government Board being obtained. Thus matters stood at the end of the year 1892.

On the 24th of January, 1893, a report of the Joint Sub-Committee (appointed by the Council on the 7th of December, 1892, to select and recommend a site for a Refuse Destructor for the north end of the Borough) was presented to the Health Committee as follows:—

“The Joint Sub-Committee, consisting of the members of
 “the standing Sub-Committee of the Health, Baths and Parks
 “Committee, and of the members of the standing Sub-Committee
 “of the Road and Improvement Committee, beg to report that
 “having visited several sites at the north end of the town,
 “suitable for the purpose of a Refuse Destructor site; and
 “having carefully considered the several offers for the sale of the
 “same to the Corporation, they have come to the conclusion,
 “having regard to all the circumstances, that the several freehold
 “plots of land belonging respectively to Mrs. J. W. Watson,
 “Mr. William Maddocks, and Mrs. William Pike, bounded by
 “Cleveland Street, Hall Street, and Corporation Road, and
 “containing together about 8,245 square yards of land, offered
 “by Mr. J. R. Simm, as agent for the owners, is the most eligible
 “site for the erection of the proposed Refuse Destructor, and they
 “recommend that the land should be acquired on the terms set out
 “in this report.”

“The site in question has frontages to Corporation Road
 “and Cleveland Street; and it is bounded on the eastern side by

“an apparently laid out street called Hall Street, and on its
“western side by vacant land.”

“On the north side there are no dwelling houses or buildings
“of any kind adjoining, as the property is bounded on that side
“by Corporation Road, nor are there any buildings adjoining on
“the eastern and western sides respectively; on the southern side,
“however, it is bounded in part by Cleveland Street, and in other
“part by house property and out buildings.”

“The price of the land in question is 6/- per square yard,
“and the purchase money is therefore £2,473 10s.”

“If the purchase is approved, the Corporation are to pay all
“solicitors’ conveyancing charges, but no negotiation fees or
“commission of any kind; and the agreement will be subject to
“the approval by the Local Government Board of the site as
“suitable for the erection thereon of a Refuse Destructor; and
“subject also to the necessary sanction to the loan of the purchase
“money; and finally, the negotiations are subject to a satisfactory
“agreement as to title and otherwise being entered into by the
“Corporation and the Vendors.”

Dated the 24th day of January, 1893,

(Signed) THOS. SHAW,
Chairman of the Joint Sub-Committee.

After full consideration of this report it was resolved :—

That the report of the Joint Sub-Committee be approved, and that the Council be recommended to purchase the site on the terms and conditions set out in the report. It was also resolved that application be made to the Local Government Board for sanction to borrow the sum of £2,473 10s. for the purchase of the site; and also for sanction to borrow a sum not exceeding £10,000 for the erection of a Refuse Destructor upon this “Hall Street Site,” and for the making of roads and building of walls &c. These resolutions were confirmed by the Council on the 1st of February, 1893.

On the 28th of February a letter from the Assistant Secretary of the Local Government Board, dated 22nd February, 1893, was read at the meeting of the Health Committee, stating that the Board would direct a local enquiry to be held on the subject; at the same meeting a letter dated 21st February, 1893, from the Manager and Secretary of the Birkenhead Brewery Co. Ltd., enclosing a copy of a letter dated 16th March, 1892, was read, expressing the Company's intention to oppose the acquisition of the Hall Street site for the erection of a Refuse Destructor.

The Local Government Board enquiry was held at the Town Hall on the 27th April, 1893, by Colonel Charles Henry Luard, R.E., the Inspector appointed to hold the inquiry; and the opponents to the Hall Street site were represented by Counsel, who fully presented their objections for the Inspector's consideration.

The amounts asked for at this time were £12,473, for the purchase of land and erection of a Destructor on the Hall Street site, and £10,251 for the erection of a Destructor on the Tranmere site, or a total sum of £22,724. On the 10th of October, a communication dated 9th October, 1893, from the Assistant Secretary of the Local Government Board was received by the Health Committee, intimating that on receipt of a formal undertaking by the Town Council in the terms proposed by the Committee, the Board would be prepared to give their sanction to the loan of £22,724, for the purchase of land and the erection of two Refuse Destructors as asked for. It was resolved that the Council be recommended to give a formal undertaking as requested.

The Council confirmed this resolution on the 26th of October, 1893, and the sanction of the Local Government Board was subsequently received.

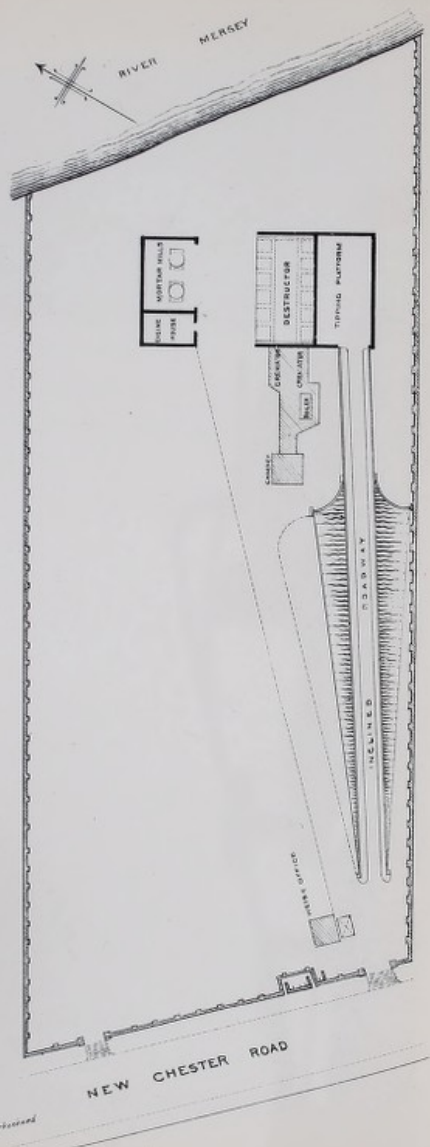
The work in connection with the erection of the South end Destructor on the Tranmere site was therefore commenced at once; but it was decided by the Committee to postpone for a time the erection of the North end Destructor on the Hall Street site.

The following is a description of the South end Destructor—

BOROUGH OF BIRKENHEAD
SOUTH END REFUSE DESTRUCTOR

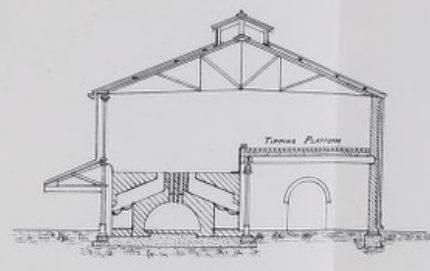
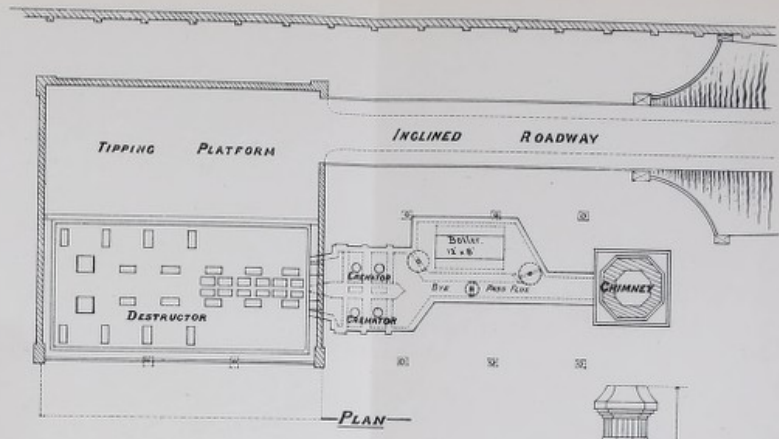
PLAN OF SITE

Scale of Feet



GRAFFITH & SON, PRINTERS, BIRKENHEAD.

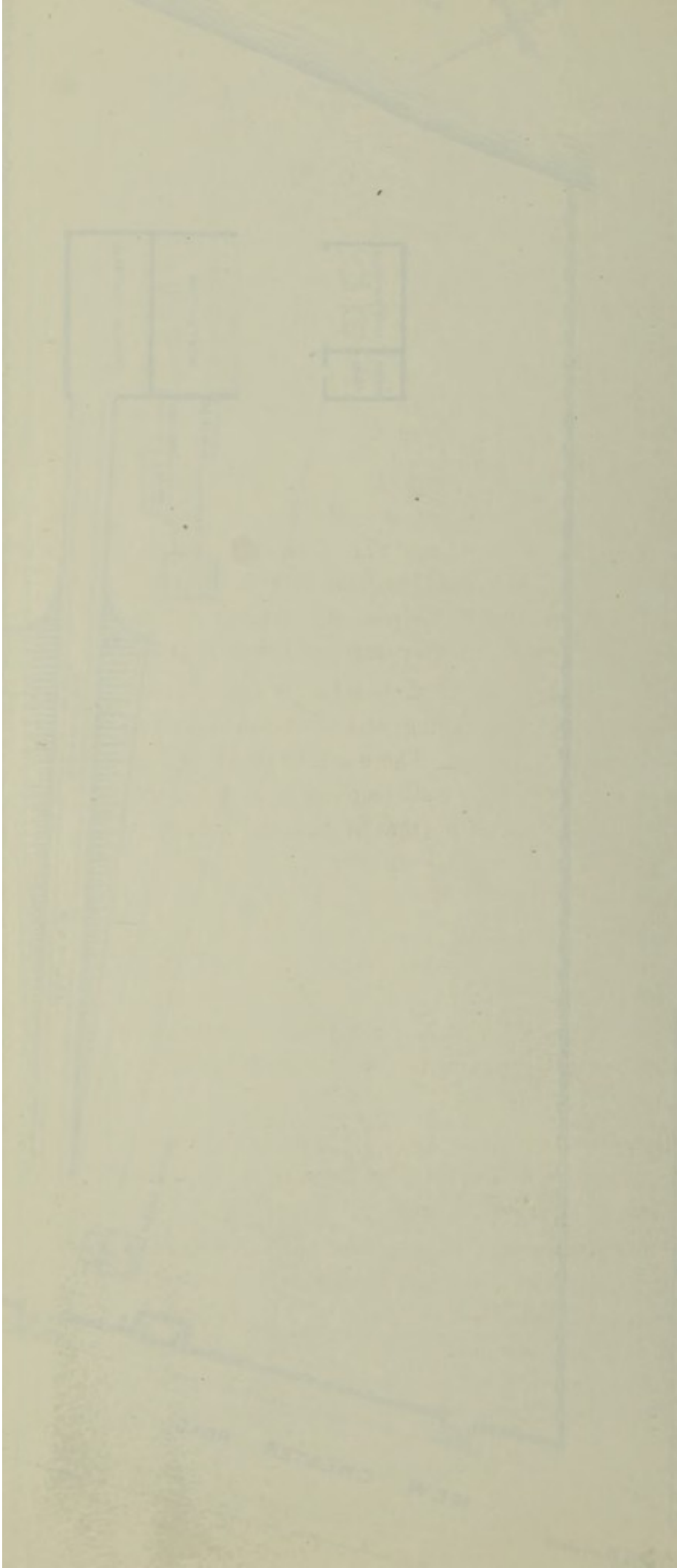
BOROUGH OF BIRKENHEAD
SOUTH END REFUSE DESTRUCTOR



Chas Brownridge AM Inst CE.
Borough Engineer & Surveyor.
Birkenhead.

SCALE OF FEET

Manlove Alliott & Co^{ltd}
Engineers & Contractors
Nottingham.



BRUNNEN

NEW CHAIR

South End Destructor.

The site chosen for this Destructor is admirably situated on a strip of land running from New Chester Road to the River Mersey, at Tranmere Pool. It contains a total area of 8,000 square yards, with a frontage of 60 yards to New Chester Road, and about the same amount of frontage to the river, which forms its north-eastern boundary.

It is about midway between the northern and southern boundaries of the Borough, and within easy reach of Higher Tranmere, Rock Ferry, and the large and densely populated portion of the Borough lying between it and the Woodside Ferry; whilst owing to its geographical position the carting to the Destructor will be chiefly down hill, a very important consideration.

The works will be surrounded on three sides by a substantial brick wall capped with terra cotta coping, and an unclimbable iron fencing on the end towards the river. There will be two entrances to the depôt, one at each end of the wall fronting to New Chester Road. Just within the south gate (that is the one nearest to Rock Ferry) the weigh house and weighing machine will be placed, and immediately opposite to this gate running down along the side of the southern wall, the inclined road leading to the tipping platform will be seen, whilst a road will also turn off to the firing floor and mortar mill. I am indebted to the Borough Engineer (Mr. Chas. Brownridge, A.M.I.C.E.) for the particulars contained in the following notes and for the sketch plans of the Destructor.

The Destructor consists of a 12 cell improved "Fryer's Destructor," six cells of which are to be fitted with improved outlets and supplied with forced draught.

The cells or furnaces are in pairs placed back to back, and each consists of a sloping fire grate and back hearth, covered by a semi-circular brick arch, the feed or charging hole being near the back end of the furnace. In some of the furnaces, large openings fitted with covers are placed, through which condemned carcases, bedding &c., can be put for the purpose of destruction.

The refuse to be destroyed is carted up the inclined roadway on to the tipping platform, and tipped on to the top of the Destructor; material is then forced down the feed hole or hopper on to the back of the hearth of the furnace, from which it is periodically raked forward on to the fire, from the furnace door, on the lower or firing floor below.

After the material has been sufficiently burnt, the result is a hard clinker, which is drawn on to metal wheelbarrows, and wheeled on to an open space in the yard, where it is slaked and cooled.

Two cremators are in connection with the Destructor, so constructed that the gases evolved by the furnaces can be conducted over a clean fire before passing to the boiler and issuing from the chimney, so that all possible chance of nuisance from foul gases is thereby avoided.

The boiler, which is 12-feet by 8-feet, is so arranged that if it is required at any future time to duplicate or increase the power, an additional boiler can be laid down without disturbing the present one, is put in for the purpose of utilising the heat generated by the destructive processes, and the steam will be used in the first instance in connection with the engine house and mortar mills shed which adjoin the Destructor.

The engine is a 30-H.P. high pressure horizontal engine, by Messrs. Manlove, Alliott & Co., and is employed to work a rotary fan and two mortar mills, these latter being used for grinding down the clinkers already alluded to, and converting them into mortar.

The furnaces, flues, and lower portions of the chimney are lined with fire brick, and the whole structure is strongly bound together by tee and stay rods, angle plates, etc., so as to withstand the high temperature necessary for destruction.

The Destructor is protected by a composite building of corrugated iron and brickwork, and covered by an iron roof with glazed lantern light and louvres to give ample light and ventilation.

The cremators attached to the Destructor are Jones' patent fume cremators, and consist of additional furnaces in which sifted cinders and coke are burned for the purpose of forming a clean hot fire over which the gases pass before issuing from the chimney.

The chimney is of octagonal shape on a square base, and will be 180 feet high.

The clinkers which form the residue, and average 33 to 41 per cent. of the weight of material dealt with, are partly used for making mortar, which is of excellent quality and usually finds a ready sale.

The total amount of refuse from the whole of the Borough consists partly of dry ashpit refuse, and partly of refuse from compound or privy middens, the latter material becoming less as the necessary conversions into water closets and dry ashpits take place, the quantity collected from the whole of the Borough during 1893 being:—

Dry ashpit Refuse ...	...	...	32,000 tons.
Privy Refuse ...	...	...	4,500 tons.
			<hr/>
		Total	<u>36,500 tons.</u>

The estimated destroying capacity of each cell is about 6 tons per day of 24 hours or 72 tons per day of 24 hours for the 12 cells, but in estimating for capacity to deal with refuse it is necessary to bear in mind the unavoidable stoppages for Sundays, holidays, &c.

The Housing of the Labouring Classes.—Little or no progress was made in 1893 in getting rid of the insanitary property referred to in Special Report on the Dwellings of the Labouring Classes which was presented on February 4th, 1890. A list of back-to-back houses, numbering in all 475, and a list of obstructive houses, numbering in all 354, was appended to that report, and it was recommended that their demolition should be obtained. A few houses were pulled down during 1890, 1891 and 1892 by order of the Sanitary Authority, as detailed in last year's report.

But during the past year nothing further has been done as regards actual demolition. The Medical Officer of Health reported very fully on several blocks of insanitary property, and the result was that in two cases re-drainage and extensive alterations were made, rendering the houses more sanitary and fit for habitation.

In case of one row of back-to-back dwellings reported on, numbering fourteen, the houses were closed up rather than put them into proper repair, and in this way went out of occupation.

In many cases the entire cleansing and limewashing of the premises was ordered and effectively carried out.

R. SYDNEY MARSDEN.

MEDICAL OFFICER OF HEALTH'S DEPARTMENT,
TOWN HALL, MAY 1ST, 1894.

APPENDIX.

TABLE I.—Deaths Registered in the County Borough of Birkenhead during the year ending December 31st, 1893, classified according to age.

TABLE II.—Weekly Register of Deaths in the County Borough of Birkenhead for the year ending December 31st, 1893.

TABLE III.—Weekly Condensed Register of Deaths for 1893.

TABLE IV.—Weekly Condensed Register of Meteorological Results for 1893.

TABLE V.—Lunar Monthly Totals of Deaths from all causes and Zymotic Diseases in 1893, with the rate per 1000 per annum.

TABLE VI.—Street Register of Deaths—1893.

A. Cleveland, Cloughton, Grange, and Argyle Wards.

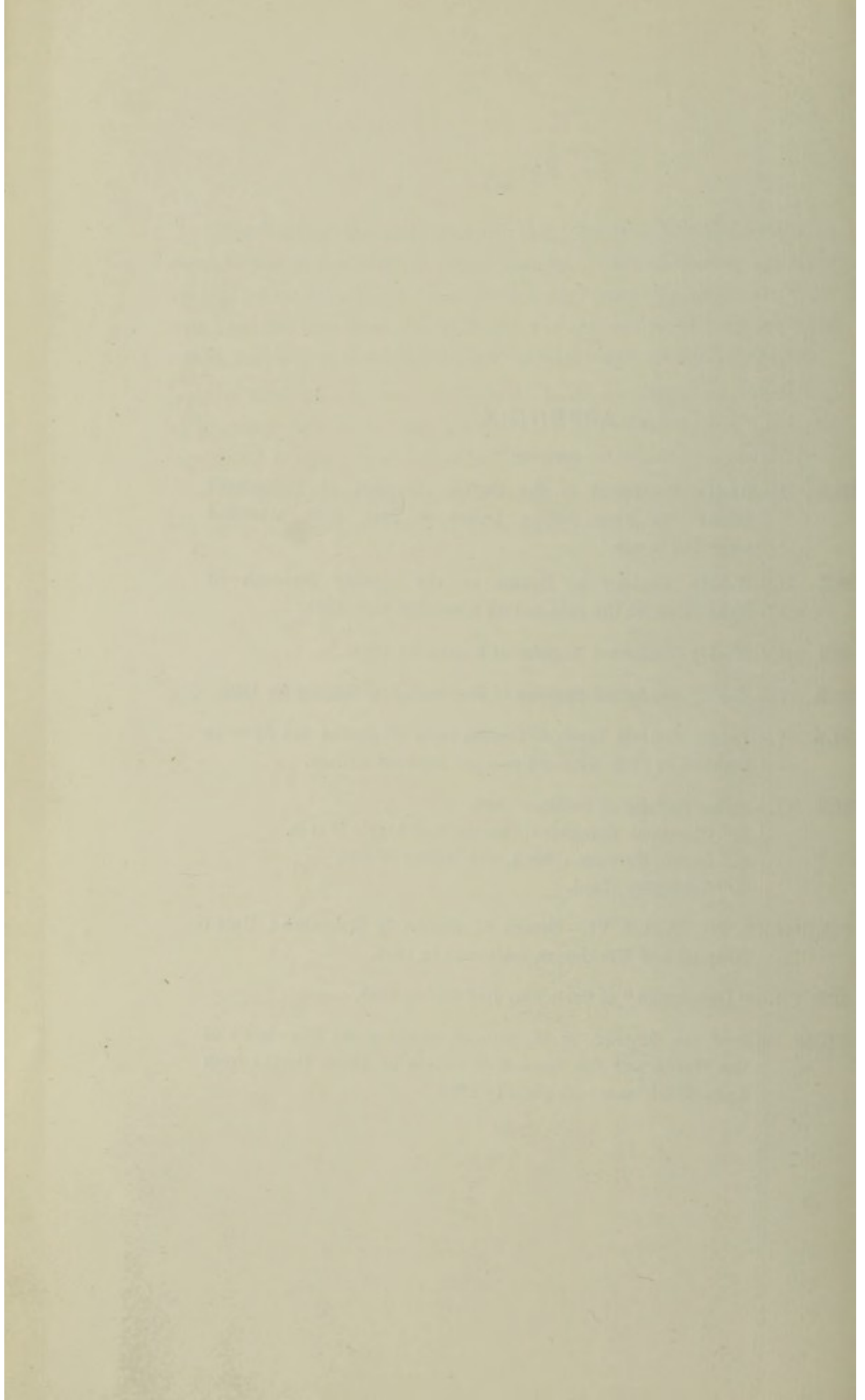
B. Oxtou, Egerton, Clifton, and Mersey Wards.

C. Bebington Ward.

SUPPLEMENT TO TABLE VI.—Return of Deaths in Birkenhead Union Hospital and Workhouse, registered in 1893.

TABLE VII.—“Description” of those who died during 1893.

SKETCH MAP of the Borough of Birkenhead, showing the Boundaries of the Wards, and the position of houses in which Deaths from Zymotic Diseases took place in 1893.



Sl. No.	Name of the person	Address	Occupation	Remarks
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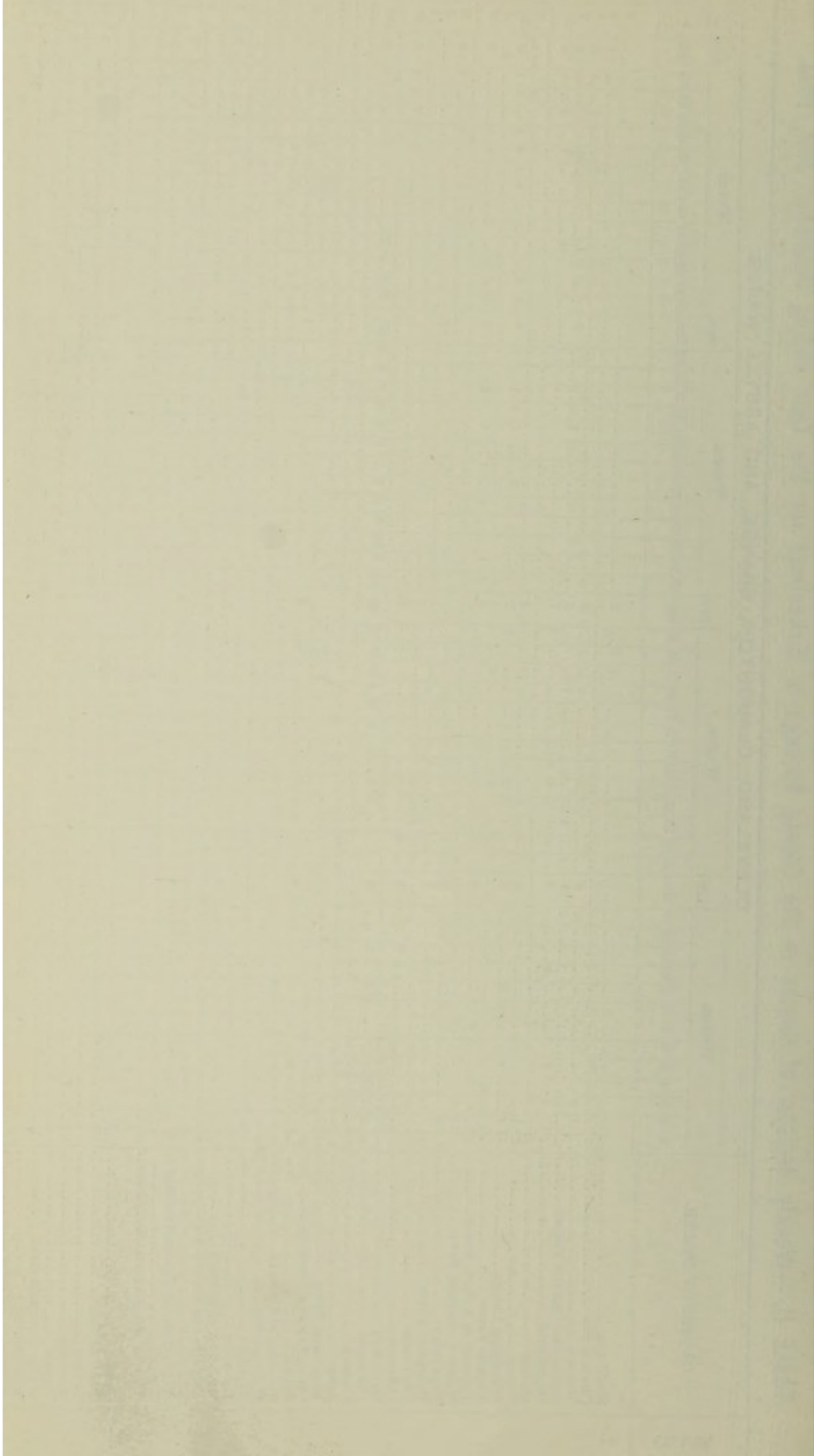
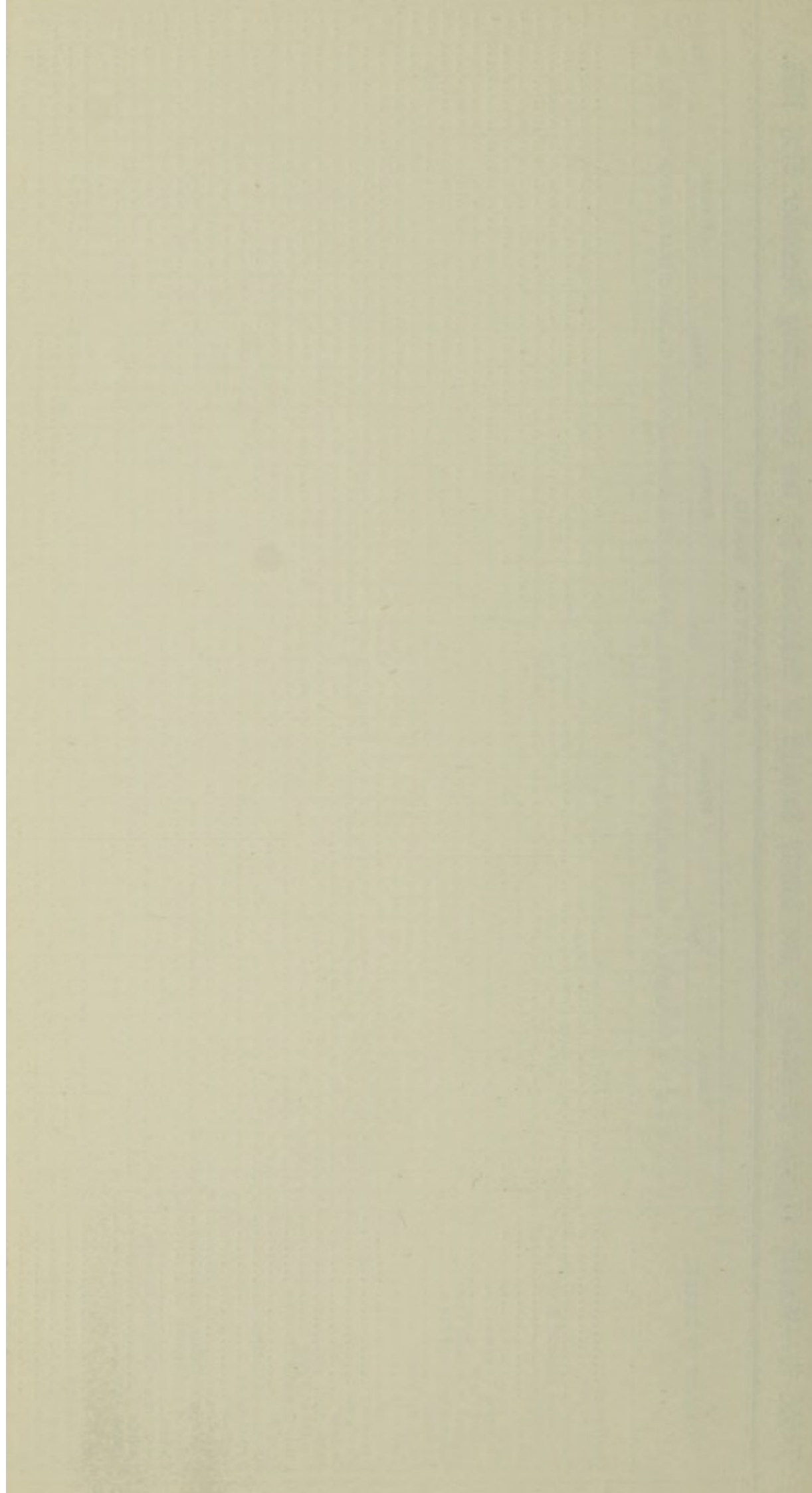
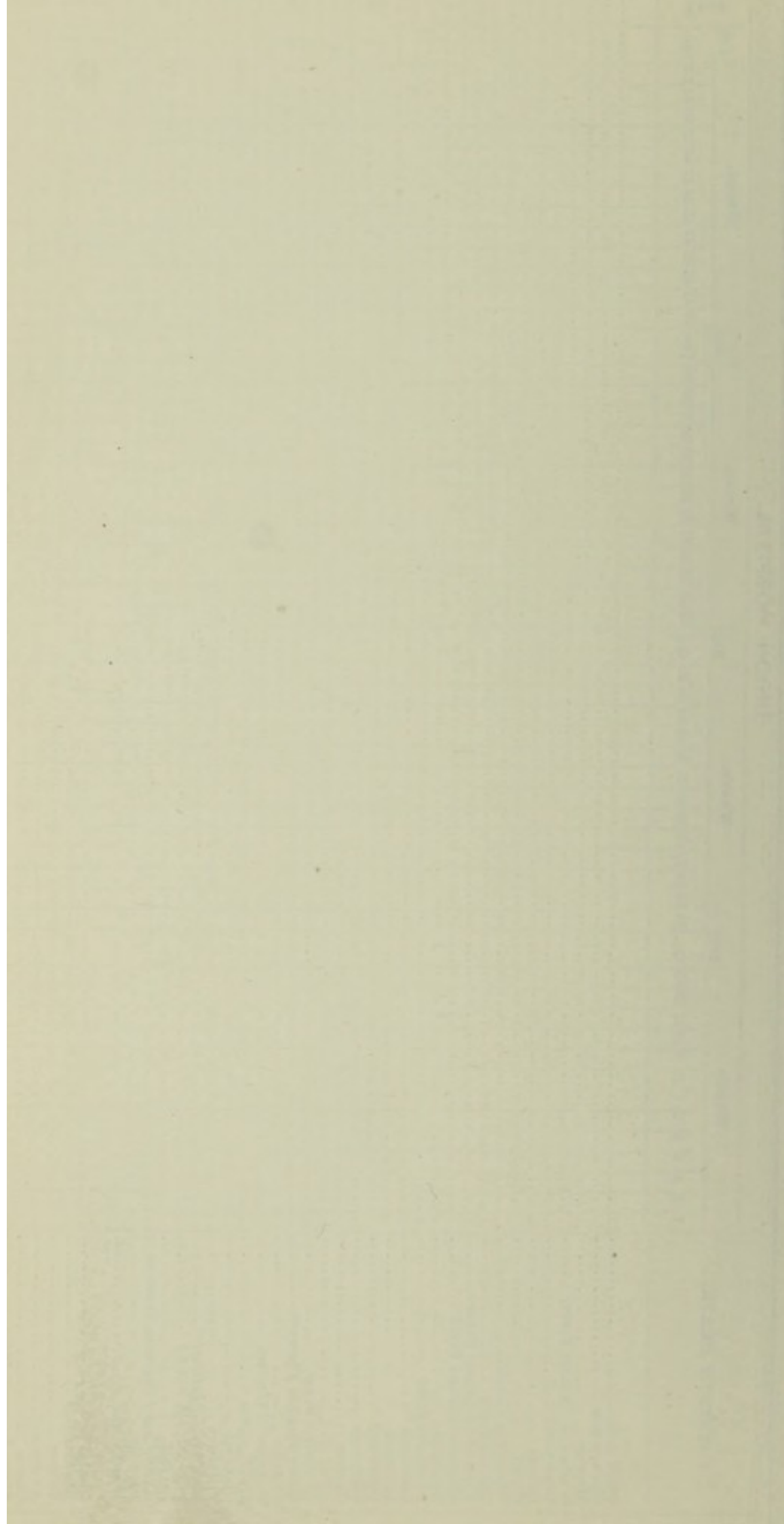


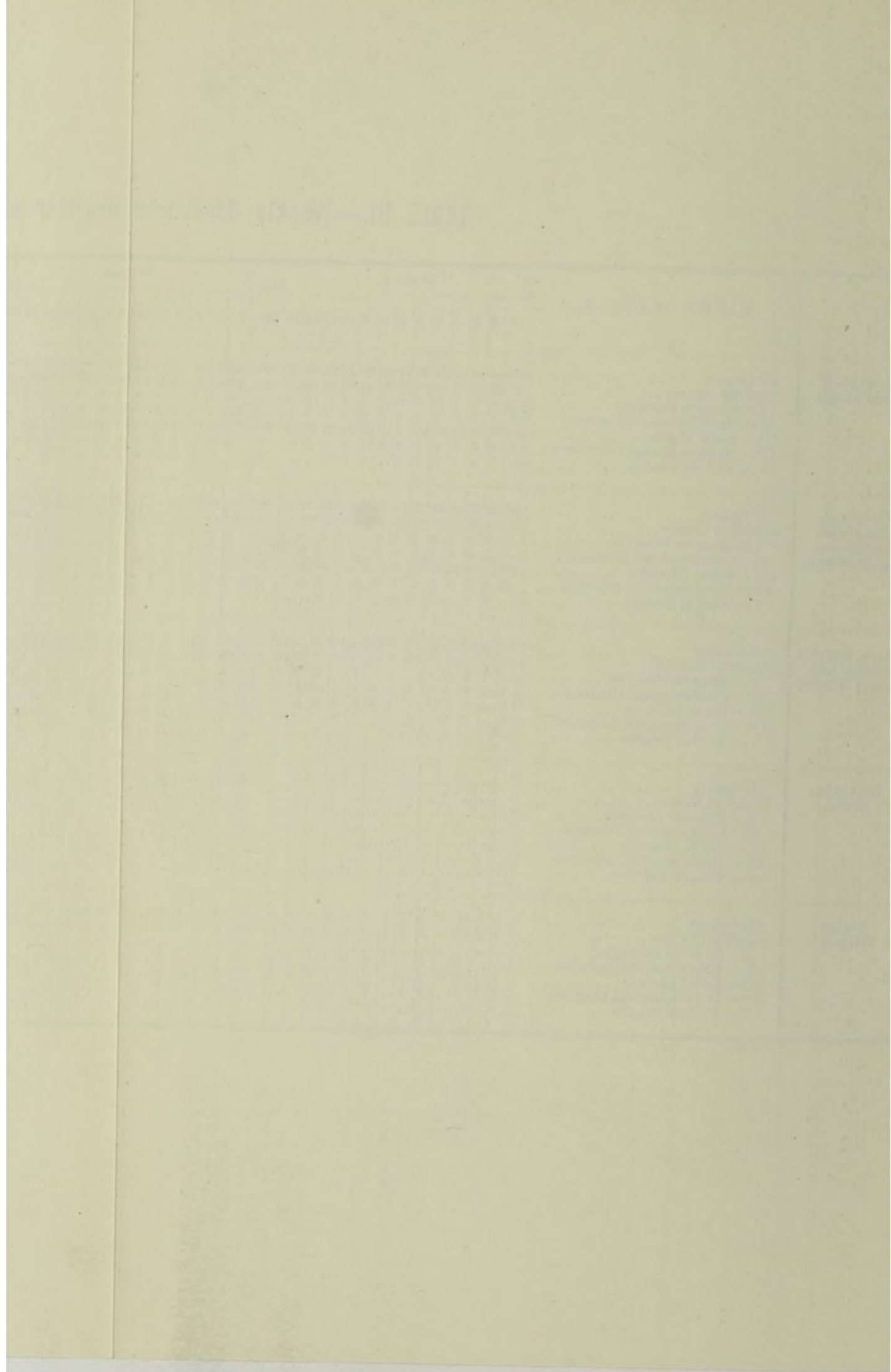
TABLE II.—Weekly Register of Deaths in the County Borough of Birkenhead for the Year ending December 31st, 1993.

CLASS.	CAUSES OF DEATH.	WEEKS.							4TH QUARTER.	WEEKS.							4TH QUARTER.								
		1913.								1914.															
		1	2	3	4	5	6	7		1	2	3	4	5	6	7									
I.	Small pox																								
	Quack pox																								
	Scarlatina (Scarlet Fever)																								
	Diphtheria																								
	Whooping Cough																								
	Erysipelas																								
	Strangles																								
	Strangles (continued)																								
	Erysipelas																								
	Scarlatina																								
II.	Whooping Cough																								
	Scarlatina																								
	Whooping Cough																								
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IV.	Whooping Cough																								
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V.	Whooping Cough																								
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	Whooping Cough																								
	Scarlatina																								
Total		1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	8	9	10
Males																									
Females																									

Note.—The weeks end January 7th, 14th, 21st, &c., the last week in the year including one day extra.







12. 1900

...

UNITE IN -- MASON'S COMPASSION SOCIETY, 12. 1900

TABLE V.

LUNAR MONTHLY TABLE OF DEATHS from all Causes and Zymotic Diseases, with the Rates per 1,000 per annum.

1893				No. of Deaths from All Causes.	Annual Rate per 1,000 Living.	No. of Deaths from Zymotic Diseases.	Annual Rate per 1,000 Living.
1st	Month ending	January 28th	.. ..	166	20·78	20	2·50
2nd	"	February 25th	.. ..	144	18·03	13	1·62
3rd	"	March 25th ..	.. ..	155	19·41	16	2·00
4th	"	April 22nd ..	.. ..	154	19·28	14	1·75
5th	"	May 20th ..	.. ..	130	16·28	22	2·75
6th	"	June 17th ..	.. ..	140	17·53	33	4·13
7th	"	July 15th ..	.. ..	222	27·80	76	9·51
8th	"	August 12th	.. ..	168	21·03	43	5·38
9th	"	September 9th	.. ..	135	16·90	33	4·13
10th	"	October 7th ..	.. ..	144	18·03	32	4·00
11th	"	November 4th	.. ..	132	16·53	16	2·00
12th	"	December 2nd	.. ..	213	26·67	28	3·50
13th	"	(plus 1 day extra) ending Dec. 31st	.. ..	229	27·69	42	5·07
Year				2132	20·53	368	3·73

TABLE VI.
STREET REGISTER OF DEATHS.

A.—CLEVELAND, CLAUGHTON, GRANGE, AND ARGYLE WARDS.

STREETS.	Total from all Causes.	From Zymotic Diseases only.	STREETS.	Total from all Causes.	From Zymotic Diseases only.
Abbey terrace	2	1	Brook place	4	0
Abbot street	5	1	Brook square	1	0
Adelphi street	6	0	Brook street	46	5
Albert Industrial Schools	1	0	Broom hill	1	1
Albert terrace	2	0	Brunswick avenue ..	3	1
Albion street	5	2	Burton street	1	0
Albion terrace	4	0	Byrom place	1	0
Alexandra road	1	0	Byrom street	2	0
Alfred road	1	0	Cambridge place ..	2	0
Alvanley place	2	1	Camden street	4	2
Argyle street	3	0	Campbell terrace ..	2	0
Arrow place	1	1	Cardigan street ..	3	1
Arthur street	11	2	Carlisle street	2	2
Aspinall street	1	0	Carpenter's row ..	1	0
Atherton street	2	0	Castle buildings ..	3	1
Athol street	2	0	Cathcart street	13	3
Austin street	1	0	Catherine street ..	1	0
Back Camden street ..	4	0	Cavendish street ..	4	0
Back Exmouth street ..	1	0	Chapel street	4	0
Back Havelock street ..	1	0	Charles street	1	1
Back Myrtle street ..	1	0	Charlesville	1	1
Back Price street	3	1	Chester place	1	0
Back St. Anne street ..	5	1	Chester street	9	1
Balls road	2	0	Christchurch road ..	2	1
Balls road east	8	2	Church street	4	1
Banning street	5	1	Clarendon street ..	2	1
Barnard road	1	0	Claughton Firs	1	0
Barton street	4	2	Claughton road	19	2
Beckwith street	37	6	Clayton street	2	1
Bedford street	2	1	Cleveland avenue ..	2	0
Bennett's hill	1	0	Cleveland street ..	10	2
Bentinck place	2	0	Club row	2	0
Bentinck street	13	1	Coburg street	3	0
Bentinck terrace	1	0	Cole street	2	0
Berner street	1	0	Collingwood street ..	6	0
Berry street	6	5	Conway street	26	4
Bertha street	2	0	Cook street	2	0
Blackpool street	2	2	Corfu street	1	0
Borough Hospital	11	1	Cottage street	7	1
Borough road	17	3	Craven place	2	1
Brassey street	4	2	Craven street	11	2
Brattan road	4	0	Crown street	4	1
Bray street	1	0	Cumberland place ..	3	2
Bridge End terrace ..	1	0	Dacre street	6	1
Bridge street	2	0	Dale street	1	0
Bright street	4	2	Davies street	4	0
Brimstage street	1	0	Derby street	4	0

TABLE VI.—Continued.

STREETS.	Total from all Causes.	From Zymotic Diseases only.	STREETS.	Total from all Causes.	From Zymotic Diseases only.
Devonshire place ..	2	0	Havelock street..	1	1
Devonshire road ..	2	0	Hemingford street ..	2	0
Dover street ..	4	1	Henry street ..	6	2
Duke street ..	2	0	Henthorne street ..	3	2
Eagle court ..	3	0	Herbert place ..	3	0
Eastbourne road ..	2	1	Hilton street ..	8	1
Eastham street..	2	2	Hind street ..	1	0
Eaton road ..	1	0	Hinson street ..	1	0
Edgar street ..	3	0	Hope street ..	5	2
Egerton street ..	5	2	Horatio street ..	1	0
Eldon place ..	7	1	Howard street ..	1	0
Eldon street ..	3	1	<i>Hughes's buildings</i> ..	4	0
Elgin street ..	1	1	Huskisson street ..	6	1
Elizabeth place ..	1	0	Ivy bank.. ..	1	0
Elizabeth street ..	1	0	Ivy court ..	1	0
Elm street ..	1	0	Ivy street ..	9	2
Enfield terrace ..	1	0	Jackson street ..	8	3
Eton place ..	2	0	James street ..	1	0
Euston grove ..	4	1	John street ..	2	0
Exmouth street ..	2	0	Keightley street ..	4	2
Falcon road ..	1	0	Kendal street ..	2	1
Field street ..	7	1	Kent place ..	2	1
Flamank street ..	7	4	King's mount ..	1	0
Flint street ..	2	1	Kimmel street ..	7	1
Florence street ..	4	1	Knowles street ..	1	0
Fore street ..	3	0	Knox street ..	3	1
Forest road ..	1	0	Laird street ..	2	0
Fox street ..	9	3	Leicester street..	9	1
Frederick street ..	1	0	Leicester terrace ..	1	1
Garnet street ..	2	0	Leinster street ..	4	1
George street ..	3	1	Leta street ..	4	1
German terrace..	2	0	Lingdale road ..	2	0
Gilbrook.. ..	1	0	Livingstone street ..	3	1
Gladstone street ..	4	4	Lord street ..	2	0
Glover street ..	1	0	Lorn street ..	2	0
Godfrey's terrace ..	1	1	Lowe street ..	1	0
Gomer street ..	3	1	Lowther street ..	9	1
Gore street ..	2	0	<i>Lying-in-Hospital</i> ..	1	0
Grange mount ..	4	0	Maddock street ..	1	0
Grange road ..	10	2	Marian grove ..	1	0
Grange road west ..	2	1	Marian street ..	9	3
Grange street ..	2	0	Market street ..	9	2
Greenfield street ..	2	0	Marlborough grove ..	3	1
Grosvenor road..	2	1	Marshall street..	1	0
Halcyon road ..	3	1	Mason's court ..	1	0
Halkin street ..	2	0	May place ..	1	0
Hamilton square ..	3	0	Meacock street ..	1	1
Hamilton street ..	1	1	Meadow street ..	6	1
Hamilton view ..	2	1	Menai street ..	4	1
Harriet street ..	3	0	Mersey place ..	1	0

TABLE VI.—Continued.

STREETS.	Total from all Causes.	From Zymotic Diseases only.	STREETS.	Total from all Causes.	From Zymotic Diseases only.
Mersey street	1	0	Ravenscroft road	1	0
Midland street	6	2	Reedville	2	1
Miller's place	2	0	Rhyl street	5	1
Milton street	3	1	Richmond cottages	3	1
Monk street	1	0	Ridley street	6	2
Moon street	7	4	River Mersey	3	0
Mornington street	3	2	Robert street	2	0
Morpeth buildings	4	1	Rose street	4	0
<i>Morpeth Dock</i>	2	1	Rowland street	2	0
Mount grove	3	0	Rushton's court	1	0
Munster street	1	0	Russell place	1	1
Myrtle court	4	2	Russell street	3	0
Myrtle place	1	0	St. Anne's balcony	2	1
Nelson street	4	2	St. Anne's grove	2	0
Neptune street	3	0	St. Anne street	45	8
Neston street	3	2	St. Anne's terrace	1	0
Newton street	1	1	St. John's place	6	3
Norman street	1	0	St. John's street	1	0
Oak bank	1	0	St. Mary's avenue	6	0
Oakfield view	3	0	St. Mary's gate	9	2
Oak street	10	3	Salisbury street	6	1
Old Bidston road	14	1	Samuel street	1	0
Old Priory	3	1	Sandford street	3	0
Oliver place	3	0	Saxon street	3	1
Oliver street	20	5	Scott's court	1	0
Orderly home	1	0	Simpson street	2	0
Oxton road	7	0	Slaty road	1	0
Palm hill	1	0	Somerville street	5	2
Parkfield avenue	14	0	Stafford street	3	2
Parkfield place	1	0	Stanley court	1	1
Park road east	1	0	S S City of New York	1	0
Park road south	1	0	Stoke street	5	0
Park road west	1	0	Sun street	3	2
Park street	10	2	Sussex street	7	2
Paterson street	11	1	Taylor's buildings	4	1
Patten street	3	1	Taylor street	1	0
Payson street	10	0	Thomas street	21	3
Penrith street	4	1	Tollemache road	1	1
Pensby street	8	0	Tranmere vale	4	1
Pilgrim street	3	0	Tranmere vale terrace	1	0
Pleasant street	5	1	Trinity street	1	1
Pool street	2	0	Turner street	3	0
Price street	36	6	Tunnel road	2	0
Princes terrace	1	0	Upper Beckwith street	2	0
Priory court	3	1	Upton road	1	0
Priory street	4	0	Vernon place	1	0
Quarry bank place	4	0	Vicars court	2	0
Queen's buildings	15	1	Victoria wharf	1	0
Queensbury street	6	1	Vincent street	2	1
Radnor place	1	0	Vine street	12	0

TABLE VI.—Continued.

STREETS.	Total from all Causes.	From Zymotic Diseases only.	STREETS.	Total from all Causes.	From Zymotic Diseases only.
Vittoria street ..	7	0	Wilbraham terrace ..	1	0
Vulcan street ..	5	0	Wilkinson street ..	13	3
Wallasey Dock ..	1	0	Wilk's court ..	1	0
Walter's court ..	2	0	Willaston place ..	3	0
Walton street ..	3	0	Williams' cottages ..	2	0
Warwick street ..	7	1	William street ..	5	0
Waterloo place ..	5	2	Wilson street ..	1	0
Watson street ..	9	2	Wilton street ..	8	3
Wellesley street ..	6	1	Windsor place ..	2	0
Wesley street ..	1	1	Windsor street ..	3	0
Westbourne road ..	5	2	Wirral children's H'spital	4	0
West Float ..	1	0	Woodchurch road ..	7	2
Whetstone lane ..	2	1	Woodside Ferry ..	1	0
White street ..	8	1	Wood street ..	8	0
Whitfield place ..	1	0			

TABLE VI.—Continued.

B.—OXTON, EGERTON, CLIFTON, AND MERSEY WARDS.

STREETS.	Total from all Causes.	From Zymotic Diseases only.	STREETS.	Total from all Causes.	From Zymotic Diseases only.
Albert place	6	2	Elm road	1	1
Alison street	4	1	Fairfield road	3	0
Allerton grove	2	0	Fairview road	4	1
Allerton road	3	0	Farm road	2	1
Amery grove	2	0	Ferry road	1	0
Apple grove	2	1	Fountain street.. ..	2	1
Argyle street south ..	9	0	Frodsham street ..	1	1
Arno road	3	0	Gladstone road.. ..	3	1
Back Portland street ..	3	0	Glasgow street	2	0
Beach View	1	1	Green Bank road	1	0
Beaconsfield road	7	3	Green lane	1	0
Bebington road.. ..	2	1	Green lawn	1	0
Bedford place	4	1	Greenway road.. ..	4	1
Bedford road	5	0	Grenville road	1	0
Beech road	6	0	Grosvenor street	5	0
Bennett's hill	1	1	Grove road	4	1
Beresford road	5	0	Hampden grove	2	1
Bidston road	6	1	Hampden street	3	0
Birch road	1	1	Harland road	4	0
Blucher street	8	1	Hazel road	2	0
Booth street	1	0	Heath Bank road	1	0
Borough road	25	4	Helmingham road	3	0
Brougham street	12	1	Holborn hill	3	0
Brunswick street	8	0	Holly Bank road	2	1
Buxton road	4	1	Holme lane	3	1
Caerwys grove	3	0	Holt hill.. ..	3	0
Carlton mount	1	0	Holt hill convent	2	0
Chapel place	2	0	Holt road	4	1
Chapel square	1	0	Howbeck road	1	0
Charlecombe street ..	1	0	Howson street	2	0
Chatham road	7	1	Ingestre road	1	0
Chesnut grove	4	0	Kingsmead road	1	0
Church place	2	0	Larch road	1	1
Church road	10	2	Lever road	1	0
Church terrace.. ..	1	0	Lilly street	3	0
Circular road	2	0	Liversidge road.. ..	7	1
Clare street	1	1	Livingstone road	7	0
Clifton road	4	0	Lorne road	2	0
Cobden street	12	6	Lowwood grove.. ..	2	0
Combermere terrace ..	3	1	Lowwood road	2	1
Comet street	3	1	Maple street	5	2
Dee street	1	0	Marquis street	1	0
Derby road	1	0	Meadow lane	8	1
Earl street	7	2	Meadow place	1	0
Ebenezer street	2	1	Medway road	2	0
Egerton park	4	1	Mersey road	4	0
Eldon road	1	0	Meteor street	2	0

TABLE VI.—Continued.

STREETS.	Total from all Causes.	From Zymotic Diseases only.	STREETS.	Total from all Causes.	From Zymotic Diseases only.
Mill Bank cottages ..	1	0	Sea Bank road ..	1	0
Mill street ..	8	1	Shrewsbury road ..	3	0
Milton road ..	6	0	Sidney buildings ..	2	0
Mollington street ..	3	1	Sidney road ..	4	1
Moss grove ..	1	0	Southwick road ..	2	1
Moss lane ..	1	0	Spring street ..	1	1
Mount street ..	1	0	Spring villas ..	1	0
Mulberry road ..	1	0	Stanley place ..	1	1
Newburn's cottages ..	1	1	Stanley street ..	7	2
New Chester road ..	17	2	Star street ..	4	0
North road ..	1	0	Stewart's place ..	3	0
Oak tree place ..	1	0	Storeton road ..	3	1
Old Chester road ..	26	6	Stuart road ..	2	0
Olive mount ..	2	0	Talbot road ..	1	0
Orchard road ..	1	0	Taylor's delph ..	1	0
Park road ..	1	0	Temple road ..	1	0
Parkton grove ..	1	1	The Woodlands..	9	1
Peel street ..	13	3	Thompson street ..	7	0
Pitt street ..	6	3	Tower hill ..	3	2
Poplar road ..	2	1	Tower road ..	2	1
Prenton road east ..	3	0	Tudor road ..	1	1
Prenton road west ..	2	0	Union street ..	1	0
Price's lane ..	1	1	Victoria mount..	1	0
Prince's place ..	2	0	Victoria road ..	9	4
Queen's buildings ..	3	0	Warrington street ..	2	0
Queen's place ..	4	1	Waterford road..	1	0
Queen street ..	2	1	Wellington road ..	3	0
Quigley street ..	1	0	Well lane ..	5	1
Railway road ..	1	0	Westbury street ..	3	3
Railway terrace ..	3	2	West view ..	1	0
Randle street ..	5	2	Whetstone lane..	8	2
Rhoden's place ..	1	0	Whitfield street ..	5	0
River Mersey ..	2	0	Whitford road ..	4	1
Rock Ferry station ..	1	1	Willan street ..	1	1
Rocky bank road ..	1	0	Willmer road ..	7	1
Rodney street ..	13	3	Willow Bank road ..	2	1
Roseberry grove ..	1	1	Willy street ..	3	1
Rose mount ..	4	1	Woodchurch lane ..	3	1
Roslyn street ..	4	2	Woodchurch road ..	1	0
Russell road ..	12	3	Woodland avenue ..	1	1
St. Paul's place..	1	0	Woodland terrace ..	1	0
St. Paul's road ..	12	4	Wycliffe street ..	1	0
Sea bank cottages ..	1	1	Wye street ..	2	1

TABLE VI.—Continued.

C.—BEBINGTON WARD.

STREETS.		Total from all Causes.	From Zymotic Diseases only.	STREETS.		Total from all Causes.	From Zymotic Diseases only.
Acton road	..	2	0	Old Chester road	..	1	0
Albert terrace	..	1	0	Rock lane	..	5	0
Bebington	..	1	0	Rock lane east	..	1	0
Dacre hill	..	4	1	Rock park	..	1	0
Derby park	..	1	0	St. Margaret's home	..	1	0
Highfield	..	1	0	Stanway place	..	1	0
Highfield crescent	..	1	0	Training ship	..	1	0
Highfield grove	..	1	0	Training ship "Akbar"	..	1	0
Highfield south	..	1	0	Training ship "Clarence"	..	1	0
King street	..	1	1	Training ship "Conway"	..	1	0
Nelson road	..	5	2	Weston's cottages	..	1	0

SUPPLEMENT TO TABLE VI.

RETURN of DEATHS in Birkenhead Union Hospital and Workhouse,
during 1893.

Date.	Sex.	Age.	Occupation, &c.	Cause of Death.	Date and Address of Deceased when admitted.	
Jan.						
1	M	59	Porter	Pemphigus ..	Mar. 22,'89	57 Wood street
1	M	61	Labourer ..	Phthisis ..	Jan. 25,'92	25 Field street
3	F	64	C'ttle drover's wife	Decay of nature	May 7,'92	7 Oak street
4	M	79	Labourer ..	Decay of nature	Nov. 11,'91	Tranmere
6	M	72	Gardener ..	Bronchitis ..	Jan. 5,'93	5 Meacock street
7	F	66	Joiner's widow ..	Hemiplegia ..	Dec. 17,'92	1 Cottage street
12	M	45	Butcher	Pneumonia ..	Jan. 7,'93	2 Ivy street
13	M	59	Labourer ..	Bronchitis ..	Jan. 9,'93	29 Queensbury st.
12	F	83	Stonemas'n's wid.	Decay of nature	June 7,'90	8 Clarendon street
13	F	42	Labourer's widow	Pneumonia ..	Oct. 20,'92	Tranmere
13	M	45	Labourer ..	Phthisis ..	June 3,'92	Birkenhead
14	F	64	Labourer's widow	Bronchitis ..	Sept. 25,'89	29 Brunsw'k st., Tra
14	F	76	Fisherman's wid.	Old age	Oct. 6,'90	9 Carpenter's row
17	F	28	Laundress ..	Phthisis ..	Jan. 2,'93	51 St. Anne st.
17	M	72	Shipwright ..	Pulmonary cong.	Feb. 12,'83	Birkenhead
18	M	76	Flatman	Decay of nature	Dec. 4,'91	24 Frederick street
18	M	72	Shoemaker ..	Decay of nature	Aug. 26,'87	Stewart's delph, T.
19	M	20	Boiler riv'ter's boy	Heart disease .	Dec. 29,'92	27 White street
19	M	69	Blacksmith ..	Pulmonary cong.	Aug. 12,'92	51 Patten street
20	M	60	Coachman ..	Rheumatism ..	May 9,'92	18 Brunswick st., T.
20	F	77	Labourer's widow	Old age	Nov. 7,'92	Birkenhead
22	M	24	Labourer ..	Pneumonia ..	Jan. 19,'93	17 Grange road
28	F	74	Labourer's widow	Bronchitis ..	Feb. 10,'87	16 Tranmere vale
31	M	57	Labourer ..	Heart disease ..	Oct. 20,'92	67 Thomas street
30	M	3b.	Do'tic Serv't's son	Debility ..	Jan. 30,'93	Born in Workhouse
Feb.						
2	M	58	Woodcarver ..	Phthisis ..	Oct. 13,'92	12 Waterloo place
6	M	58	Tailor	Senile decay ..	Sept. 19,'92	15 Princes pl., Tra.
9	M	77	Smith	Senility	Oct. 29,'85	14 Moon street
14	F	58	Soldier's widow ..	Rheumatism ..	Oct. 29,'84	9 St. John's court
18	M	25	Labourer ..	Tuberculosis ..	July 16,'92	Birkenhead
19	F	14	Labourer's d'ter	Paralysis ..	Feb. 1,'93	11 Laxey terrace
20	M	82	Boilermaker ..	Senility	May 8,'90	Tranmere
26	M	34	Fireman	Phthisis ..	Nov. 22,'92	3 h'sel24 Market st.
26	M	11M	Boilermaker's son	Dentition ..	Jan. 23,'93	103 Livingstone st.
26	F	40	Plasterer's widow	Rheumatism ..	Jan. 27,'93	20 William street
28	F	59	Baker's widow ..	Cancer of uterus	Oct. 2,'93	5 Warwick street
Mar.						
1	F	73	Domestic servant	Senility	Dec. 14,'92	66 Thomas street
1	F	57	Labourer's wife ..	Paralysis ..	Feb. 25,'93	24 Dacre street
3	F	73	Blacksmith's wife	Senility	Feb. 1,'93	39 Up. Beckwith st.
4	M	39	Labourer ..	Meningitis ..	July 27,'91	18 Brook place
7	F	82	Bookkeeper's wid.	Senility	Mar. 4,'93	17 Greenfield st.
10	M	45	Labourer ..	Pulmonary cong.	Mar. 9,'93	15 Grange st.
12	F	80	Unknown ..	Senility	Mar. 3,'93	25 B'k St. Anne st.
13	M	72	Labourer ..	Erysipelas ..	Mar. 2,'93	17 Grange road
13	F	51	Carpenter's wife	Fall down stairs	Mar. 11,'93	87 Egerton street

SUPPLEMENT TO TABLE VI.—*Continued.*

Date.	Sex.	Age.	Occupation, &c.	Cause of Death.	Date and Address of Deceased when admitted.	
Mar.						
15	M	86	Saddler	Senility	Feb. 3,'93	106 Exmouth street
16	F	42	Labourer's wife..	Phthisis	Mar. 9,'93	23 Ivy street
16	F	73	Joiner's widow ..	Cancer of uterus	Oct. 11,'92	40 Russell street
16	F	60	Tailor's widow ..	Paralysis	Sept. 9,'92	4 Munster street
21	F	53	Wife	Paralysis	Mar. 15,'93	23 Moon street
21	M	29	Labourer's son ..	Epilepsy	Nov. 10,'88	210 Brook street
24	M	26	Labourer.. ..	Phthisis	Mar. 13,'93	68 St. Anne street
25	M	65	Joiner	Bronchitis	Mar. 23,'93	87 Borough rd., Tr.
26	M	38	Butcher	Phthisis	Jan. 31,'93	147 Oliver street
28	M	45	Plater	Phthisis	Oct. 29,'92	75 Market street
April						
3	M	36	Labourer	Phthisis	July 1,'87	169 Bridge street
5	M	36	Carter	Pneumonia	Mar. 28,'93	142 Chester street
6	M	67	Labourer	Heart disease ..	April 4,'93	9 Oliver street
5	M	40	Carter	Paralysis	Mar. 30,'93	335 Price street
10	M	53	Joiner	Bright's disease	Dec. 15,'91	75 Market street
12	F	70	Labourer's widow	Senility	April 5,'93	26 Field street
13	F	76	Upholsterer's wid.	Bronchitis	April 4,'93	5 Bridge street
21	F	65	Labourer's wife..	Bronchitis	May 7,'92	7 Oak street
25	F	59	Labourer's widow	Bronchitis	Oct. 17,'89	12 Frederick street
26	M	73	Labourer	Bronchitis	Dec. 7,'90	171 Bridge street
28	F	42	Joiner's wife ..	Phthisis	Mar. 18,'93	31 Tranmere vale
28	F	70	Shoemaker's wid	Senility	April 4,'93	6 Stafford street
May						
8	M	47	Stonemason	Phthisis	May 1,'93	12 Waterloo place
13	M	46	Labourer	Paralysis	May 12,'93	73 Egerton street
16	F	37	M'hine drill'r's w.	Phthisis	Mar. 2,'93	48 Ivy street
21	F	40	Labourer's wife ..	Phthisis	April 7,'93	35 Payson street
28	M	36	Labourer	Heart disease ..	May 1,'93	75 Market street
29	F	5	Ironm'ald'r's dau.	Abscess	April 25,'93	14 Cumberland pla.
June						
2	F	72	Hawker's wife ..	Senility	May 24,'93	13 Kinmel street
6	M	78	Labourer.. ..	Diarrhoea	May 12,'86	13 Cambridge pla.
10	M	72	Hawker	Senility	May 24,'93	13 Kinmel street
13	M	53	Labourer	Pneumonia	June 3,'93	32 Grange road
19	M	68	Clock maker	Hernia	June 13,'93	12 Waterloo place
22	M	48	Shoemaker	Rheumatism	May 24,'92	27 Conway street
24	M	67	Sboemaker	Senility	Oct. 31,'87	153 Old Ch't'r r., Tr.
25	F	54	Labourer's wife..	Liver disease ..	June 9,'93	15 Vicar's court
25	M	56	Stableman	Heart disease ..	April 6,'93	Oxton
July						
1	F	49	Labourer's widow	Paralysis	June 21,'93	16 Howard street
3	M	69	Hawker	Paralysis	July 9,'92	3 Kendal street
4	M	31	Labourer.. ..	Epilepsy	July 18,'92	6 St. Mary's avenue
10	M	50	Painter	Heart disease ..	June 10,'93	48 Egerton street
7	M	61	Boilermaker	Alcoholism	July 5,'93	147 Oliver street
11	F	43	Dom. Serv. Dau.	Convulsions	June 12,'93	77 Rodney st., Tra.
15	M	22	Labourer.. ..	Meningitis	July 11,'93	142 Chester street
16	F	31	Charwoman	Pneumonia	July 12,'93	15 Chapel place
17	F	50	Clerk's widow ..	Gangrene	June 17,'93	20 St. Mary's gate
18	M	62	Blacksmith	Apoplexy	July 22,'92	88 Rodney st., Tra.
17	F	67	Conjurer's widow	Apoplexy	June 13,'93	2 Eldon place

SUPPLEMENT TO TABLE VI.—Continued.

Date.	Sex.	Age.	Occupation, &c.	Cause of Death.	Date and Address of Deceased when admitted.	
July						
19	M	74	Labourer ..	Senility ..	Sep. 22,'90	House of Aged Poor
22	F	63	Stonemason's wid.	Obs'ion of bowels	July 20,'93	56 Jackson street
25	F	67	Shoemaker's wid.	Bronchitis ..	Feb. 6,'93	36 Brook street
26	F	36	Painter's wife ..	Liver disease ..	May 31,'93	3 Miller's place
27	F	11M	Dom. Serv. Dau.	Marasmus ..	Sep. 2,'92	9 Charles street
27	M	1M	Dom. Serv. son	Marasmus ..	June 15,'93	Born in workhouse
30	F	7M	Charwoman's dau.	Marasmus ..	April 26,'93	Police court, B'he'd
Aug.						
10	M	40	Labourer ..	Phthisis ..	July 1,'93	20 St. Mary's gate
19	F	78	Bootmaker's wid.	Senility ..	Feb. 6,'93	10 Alison st., Tran.
26	M	35	Fireman ..	Syphilis ..	May 25,'93	19 Greenfield street
31	M	42	Labourer ..	Cancer ..	Feb. 23,'93	6 Waterloo place
29	M	31	Confectioner ..	Alcoholism ..	Aug. 27,'93	Police court B'he'd
Sep.						
3	F	60	Labourer's widow	Bronchitis ..	Oct. 18,'92	9 Field street
6	M	56	Cook	Apoplexy ..	July 8,'93	88 Brook street
7	M	3M	Hawker's son ..	Marasmus ..	Aug. 16,'93	Police court, B'he'd
9	M	69	Labourer ..	Bronchitis ..	June 27,'93	12 Waterloo place
12	F	12	Seaman's daught'r	Tuberculosis ..	Aug. 25,'93	Tranmere
12	M	22	Bricklayer ..	Phthisis ..	July 26,'93	22 Edgar street
16	M	50	Labourer ..	Heart disease ..	Sep. 12,'93	7 Vine street
17	F	66	Carpenter's widow	Senile decay ..	May 21,'91	8 George street
23	M	65	Labourer ..	Paralysis ..	Sep. 4,'93	44 William street
24	M	57	Boilermaker ..	Paralysis ..	Aug. 8,'93	67 Bentinck street
23	M	75	Bricklayer ..	Heart disease ..	Oct. 13,'92	Birkenhead
Oct.						
2	M	71	Hawker ..	Senility ..	May 12,'93	146 Chester street
6	F	27	Civil engin'rs wife	Tuberculosis ..	Oct. 5,'93	62 Oliver street
7	F	60	Boilermaker's wid.	Falling ..	Sep. 23,'93	Sea'be cot'ge hosp.
13	F	55	General servant	Paralysis ..	Aug. 29,'82	Brook street
15	M	58	Captain of flat ..	Paralysis ..	Aug. 2,'93	11 Bruns'ck st., Tr.
16	M	75	Labourer ..	Gangrene ..	Oct. 5,'93	62 Oliver street
20	F	51	Shipwright's wife	Apoplexy ..	Jan. 11,'92	Tramp sheds, Tra.
23	F	40	Civil engin'rs wid.	Heart disease ..	Oct. 12,'93	112 Market street
24	F	35	Plumber's widow	Pneumonia ..	Oct. 19,'93	2 Elm street
25	F	34	Carter's widow ..	Heart disease ..	Aug. 2,'93	1 William street
26	F	65	Engineer's widow	Senile decay ..	Jan. 11,'93	195 Peel st., Tran.
28	M	72	Labourer ..	Diarrhœa ..	April 4,'93	19 William street
29	M	76	Clerk ..	Senility ..	Feb. 8,'90	34 Mill st., Tranm.
29	M	42	Porter ..	Heart disease ..	Oct. 16,'93	8 Wilbraham terra.
Nov.						
1	F	5M	Gen. s'vant's dau.	Syphilis ..	May 25,'93	Born in Wor'house
4	F	45	Labourer's wife ..	Pneumonia ..	Oct. 27,'93	68 St. Anne street
6	M	24	Labourer ..	Phthisis ..	Nov. 4,'93	360 Borough road
6	F	75	Seaman's widow	Senility ..	May 29,'93	27 Ivy street
7	F	38	Seaman's widow	Fall down stairs	Oct. 30,'93	92 St. Anne street
9	M	42	Fitter ..	Gout ..	Sep. 19,'93	3 Corfu street
14	F	60	Labourer's widow	Senility ..	Oct. 27,'93	50 St Anne street
23	F	75	Labourer's wife ..	Senility ..	July 15,'93	138 Beckwith street
25	F	61	Driller's wife ..	Paralysis ..	July 9,'89	2 Abbey court
25	M	70	Shoemaker ..	Senility ..	Feb. 3,'93	75 Market street
27	M	58	Labourer ..	Bronchitis ..	Nov. 21,'93	91 Albion street

SUPPLEMENT TO TABLE VI — *Continued.*

Date.	Sex.	Age.	Occupation, &c.	Cause of Death.	Date and Address of Deceased when admitted.	
Nov. 29	F	13	Labourer's dau...	Liver disease ..		
Dec. 7	F	73	Stonemas'n's wid.	Senility ..	June 22, '92	9 T'lor's delph, Tr.
8	M	5h.	Dom. s'vant's son	Syphilis..	Dec. 8, '93	Born in Wor'house
8	M	7h.	Dom. s'vant's son	Syphilis..	Dec. 8, '93	Born in Wor'house
11	M	17	Boiler cleaner ..	Phthisis..	Nov. 24, '93	9 Grange street
12	M	50	Labourer ..	Dropsy ..	Nov. 26, '93	87 Back Price street
17	F	55	Labourer's wife..	Paralysis	July 1, '93	19 Queen's pl., Tr.
20	F	55	Gunner R.N. wid.		Dec. 13, '93	7 Old priory
20	M	7	Unknown ..	Meningitis		
22	M	73	Bricklayer ..	Senility ..	June 29, '92	Birkenhead
24	M	65	Striker ..	Paralysis	Aug. 25, '93	13 Albert terrace
23	M	40	Butcher ..	Alcoholism	Dec. 20, '92	47 B'k Ptlnd st., Tr.
27	M	40	Labourer ..	Phthisis..	Oct. 12, '93	86 Oliver street
29	F	76	Stoker's widow ..	Gangrene	Dec. 21, '83	Birkenhead
29	F	64	Labourer's widow	Senility ..	July 3, '93	34 Clarendon street
31	M	9m	Dom. s'vant's son	Syphilis..	Mar. 10, '93	Born in Wor'house

TABLE VII.

Description of those who Died during 1893.

Occupation, &c.	M.	F.	Son.	Daughter.	Wife.	Widow.
Accountant	2	..	..	2	..	..
Actor	1	..	..	..	..	..
African merchant .. ..	..	..	..	..	1	..
Agent	1	..	2	4	1	..
Annuitant	3	..	..	..	..	..
Apprentice	2	..	..	..	..	..
Architect .. ..	..	..	2	..	..	..
Articled clerk	1	..	..	..	..	..
Assurance agent	3	..	4	..	2	1
Assurance superintendent ..	2	..	1	..	..	..
Auctioneer .. ..	..	..	..	..	1	..
Author .. ..	..	..	..	1	..	..
Baker	4	..	4	5	2	..
Bandmaster .. ..	..	..	..	1	..	..
Banker	1	..	..	..	..	..
Bargeman .. ..	..	..	..	..	1	..
Barman	1	..	1	..	..	..
Bill poster .. ..	..	..	..	..	1	1
Blacksmith	5	..	8	6	4	3
Blind maker .. ..	..	..	1	..	..	..
Boiler cleaner	3	..	3	4	..	1
Boiler maker	14	..	23	12	9	..
Book-keeper	2	..	1	8	2	2
Bottler	1	..	..	..	2	..
Brass finisher .. ..	..	..	1	1	..	..
Brewer .. ..	..	..	..	..	..	1
Bricklayer	5	..	4	3	4	1
Brickmaker	1	..	..	1	..	1
Broker	4	..	1	1	2	3
Brush manufacturer .. ..	..	..	..	1	..	..
Builder	5	..	2	2	..	2
Butcher	3	..	9	11	3	1
Cab driver	3	..	3	3	..	1
Cabinet maker	1	..	..	2	..	2
Candle maker .. ..	..	..	1	..	..	..
Caretaker	3	..	..	..	1	1
Carpenter	4	..	3	1	..	..
Car proprietor	1	..	..	1	..	..
Carter	5	..	13	19	4	4
Cart owner	1	..	..	..	1	..
Cashier	3	..	1	2	..	..
Caulker	1	..	1	..	..	..
Cellarman	1	..	1	1	..	..
Chair maker .. ..	..	..	..	1	..	..
Chandler .. ..	..	..	..	1	..	..
Charwoman .. ..	..	4	5	6	..	..
Chemist	2	..	2	1	1	..
Chimney sweeper	1	..	1	2	..	..
China dealer .. ..	..	..	..	1	..	1

TABLE VII.—Continued.

Occupation, &c.	M.	F.	Son.	Daughter.	Wife.	Widow.
Civil engineer .. ..	..	..	1	1	..	..
Clerk	11	..	11	6	5	5
Clerk of works .. ..	..	..	2	..	..	..
Cloth dresser .. ..	..	..	..	..	..	1
Clothier	1	..	..	..	..	..
Coachman	5	..	4	7	..	1
Coal heaver .. ..	..	..	1	..	..	..
Coal merchant	2	..	1	3	2	3
Collector .. ..	..	..	..	2	1	..
Colour sergeant .. ..	..	..	1	..	..	..
Comedian .. ..	..	..	1	..	..	..
Commercial traveller	2	..	6	3	..	2
Commission agent	2	..	..	..	1	1
Compositor	2	..	..	..	1	..
Confectioner .. ..	..	..	1	1	..	..
Contractor .. ..	..	..	..	..	..	3
Cook	1	1	..	4	1	..
Cooper .. ..	..	..	1	..	1	..
Corn merchant	1	..	..	..	..	..
Court of chancery officer .. ..	..	..	..	..	..	1
Customs officer .. ..	..	..	1	..	1	1
Cycle manufacturer .. ..	..	..	1	..	..	..
Decorator .. ..	..	..	..	2	..	..
Dentist .. ..	..	..	1	1	..	..
Dock gateman .. ..	..	..	2	3	..	..
Domestic servant .. ..	..	9	12	9	..	..
Draper .. ..	..	..	2	..	..	..
Draughtsman	1	..	..	..	..	..
Drayman	3	..	..	2	..	1
Dress maker .. ..	..	3	1	..	..	..
Driller	2	..	7	7	1	..
Engine driver	3	..	5	2	2	1
Engineer	6	..	9	14	4	..
Engraver	1	..	..	1	..	..
Errand boy	3	..	..	..	..	..
Estate agent .. ..	..	..	1	..	..	..
Farmer	2	..	..	4	..	5
Ferry manager	1	..	..	1	..	..
Fellmonger .. ..	..	..	1	..	..	..
File cutter .. ..	..	..	1	..	..	..
File grinder .. ..	..	..	1	1	..	..
Fireman	7	..	12	16	5	3
Firewood dealer	1	..	..	..	..	..
Firework maker .. ..	..	..	..	..	..	1
Fisherman	2	..	5	2	..	..
Fishmonger .. ..	..	..	1	..	..	..
Fitter	2	..	9	8	..	..
Flatman	4	..	7	6	3	..
Flour dealer .. ..	..	..	..	1	1	..
Foreman	1	..	1	..	..	..

TABLE VII.—Continued.

Occupation, &c.	M.	F.	Son.	Daughter.	Wife.	Widow.
French polisher .. ..	..	..	2	2	..	..
Fruit merchant .. ..	..	..	..	1	..	..
Furniture dealer .. ..	..	..	..	..	2	..
Furniture remover .. ..	..	..	1	..	2	..
Gamekeeper .. ..	..	..	..	..	..	1
Gardener	4	..	7	2	6	6
Gas fitter .. ..	..	..	4	1	..	..
General merchant	4	..	1	2	..	4
Gentleman	1	..	..	..	2	..
Glass merchant .. ..	..	..	..	1	..	1
Glazier .. ..	..	..	..	..	..	1
Glover .. ..	..	..	..	..	..	1
Governess .. ..	..	1	..	..	..	..
Green grocer	1	..	3	1	2	..
Grocer	3	..	3	1	2	..
Gun manufacturer	1	..	..	..	..	..
Hair dresser .. ..	..	..	..	..	1	1
Hat manufacturer .. ..	..	..	1	..	..	..
Hawker	1	1	..	1	..	..
Herbalist .. ..	..	..	..	1	..	..
Holder-up	1	..	..	..	..	..
Horse slaughterer .. ..	..	..	..	..	..	1
Hosier .. ..	..	..	..	..	1	..
House keeper .. ..	..	1	..	1	..	..
Hydraulic boy	1	..	..	..	..	..
Iron dresser	1	..	1	..	..	..
Iron founder	1	..	..	..	..	..
Iron merchant	1	..	..	..	..	2
Iron moulder	3	..	3	3	..	..
Iron planer .. ..	..	..	..	..	1	..
Iron turner	1	..	3	3	1	..
Jeweller .. ..	..	..	..	1	..	..
Joiner	15	..	12	18	13	6
Joiner's daughter .. ..	..	..	..	1	..	..
Journalist	1	..	..	..	..	..
Justice of peace .. ..	..	..	..	..	..	1
Labourer	99	..	129	117	43	29
Lamp lighter .. ..	..	..	..	2	..	..
Lamp manufacturer .. ..	..	..	..	..	..	1
Laundress .. ..	..	2	1	1	..	..
Laundry proprietor .. ..	..	..	..	1	..	..
Leather merchant .. ..	..	..	..	1	..	..
Licensed victualler .. ..	..	..	2	3	7	..
Lieutenant (R.N.) .. ..	..	..	..	..	1	..
Lightship master	1	..	..	..	..	..
Little Sister of the Poor .. ..	..	1	..	..	..	..
Livery stable keeper	1	..	..	..	..	..
Machinist .. ..	..	..	1	..	..	..
Manager	8	..	2	4	3	1
Mantle maker .. ..	..	1	..	..	..	..

TABLE VII.—Continued.

Occupation, &c.	M.	F.	Son.	Daughter.	Wife.	Widow.
Marble mason .. ..	..	..	..	1	..	..
Marine superintendent ..	..	..	1	..	..	..
Master mariner	5	..	5	1	..	4
Medical practitioner ..	2	..	2	..	..	1
Messenger .. ..	..	..	..	1	..	..
Metal planer .. ..	..	..	..	1	..	..
Milk purveyor	3	..	2	..	2	..
Miller	2	..	..	..	1	..
Milliner .. ..	..	1	..	..	..	..
Miner	1	..	..	..	..	2
Mineral water manufacturer	..	..	..	1	..	..
Minister .. ..	..	..	..	..	1	1
Model maker	1	..	..	..	..	..
Musician .. ..	..	..	..	1	..	..
Naturalist .. ..	..	..	1	..	..	..
Newsagent .. ..	..	..	2	..	..	..
Newspaper editor .. ..	..	..	..	..	..	1
Nurse .. ..	..	2	1	1	..	..
Of independent means ..	6	5	..	..	..	..
Painter	6	..	9	10	3	3
Paper-hanger .. ..	..	..	1	..	..	..
Paper-ruler .. ..	..	..	..	..	1	..
Pattern maker	1	..	..	..	..	..
Pavior .. ..	..	..	1	..	..	..
Pawnbroker	1	..	..	..	..	..
Pedlar	1	..	..	..	..	..
Pensioner	4	..	..	4	1	2
Photographer .. ..	..	..	1	..	..	..
Pier master .. ..	..	..	..	..	..	1
Pilot .. ..	..	..	..	..	..	1
Plasterer	2	..	..	4	..	..
Platelayer .. ..	..	..	..	1	..	1
Plumber	1	..	1	2	1	2
Police inspector .. ..	..	..	1	1	..	..
Policeman	2	..	1	2	..	1
Police superintendent ..	1	..	..	..	..	..
Porter	5	..	3	9	3	4
Postman .. ..	..	..	1	1	..	1
Potato dealer .. ..	..	..	..	1	..	..
Printer .. ..	..	..	1	..	1	..
Prison governor .. ..	..	..	..	1	..	..
Professor of languages ..	1	..	..	..	..	..
Provision dealer .. ..	..	..	..	..	2	..
Purser .. ..	..	..	1	1	..	..
Quarryman	1	..	1	1	..	1
Race course proprietor ..	..	..	..	1	..	..
Railway servant	16	..	24	18	4	2
Retired black smith ..	..	..	..	..	1	..
„ broker	1	..	..	..	..	..
„ cabinet maker	1	..	..	..	..	..

TABLE VII.—Continued.

Occupation, &c.	M.	F.	Son.	Daughter.	Wife.	Widow.
Retired car proprietor ..	1	..	..	..	..	..
.. chemist	1	..	..	..	..	..
.. civil servant	1	..	..	..	..	..
.. clerk	1	..	..	..	..	..
.. Commander (R.N.) ..	..	..	..	..	1	..
.. Commercial traveller ..	..	..	..	..	1	..
.. Drysalter	1	..	..	..	..	..
.. Engineer	1	..	..	..	..	1
.. Farmer	2	..	..	..	..	..
.. Fruit merchant	1	..	..	..	..	..
.. General merchant .. ..	..	..	..	..	..	1
.. Iron merchant	2	..	..	..	..	..
.. Licensed victualler ..	..	..	..	..	..	1
.. Master mariner .. ..	..	..	..	..	1	..
.. Metal merchant	1	..	..	..	..	..
.. Pianoforte tuner	1	..	..	..	..	..
.. Post master	1	..	..	..	..	..
.. Provision merchant ..	1	..	1	..	..	..
.. Railway servant	1	..	..	..	..	..
.. Relieving officer	1	..	..	..	..	..
.. Rope maker .. ..	..	..	..	..	1	..
.. Salt merchant	1	..	..	..	..	..
.. School master .. ..	..	..	..	..	..	1
.. School mistress .. ..	..	1	..	..	..	..
.. Seaman	1	..	..	..	..	..
.. Tailor and draper	4	..	..	..	..	1
.. Tripe dealer	1	..	..	..	..	..
Rivetter	1	..	1	5	2	..
Road foreman	1	..	..	..	..	..
Saddler .. ..	..	..	..	1	..	..
Sailmaker	1	..	..	..	..	..
Salesman	2	..	1	4	1	..
Salt dealer .. ..	..	..	1	1	..	..
Sanitary Inspector .. ..	..	..	..	2	..	..
Sawyer	2	..	1	1	..	..
School Board officer .. ..	..	..	..	..	1	..
School master	2	..	1	2	1	2
School mistress .. ..	..	2	..	..	..	..
Scripture reader	2	..	..	..	..	..
Seaman	14	..	19	9	3	5
Secretary .. ..	..	..	1	..	1	..
Seedsman .. ..	..	..	1	..	..	..
Shandyman .. ..	..	..	..	1	..	..
Ship builder	1	..	..	..	..	1
Ship officer .. ..	..	..	1	..	..	..
Ship owner .. ..	..	..	..	..	..	2
Ship plater .. ..	..	..	1	..	..	1
Ship rigger	1	..	..	1	..	..
Shipsmith .. ..	..	..	1	2	..	..
Shipwright	5	..	4	7	5	1

TABLE VII.—Continued.

Occupation, &c.	M.	F.	Son.	Daughter.	Wife	Widow.
Shoemaker	9	..	2	6	3	1
Shop assistant	3	2	4	2	2	1
Slater and plasterer	2	..	..	..	2	..
Soap boxer .. ..	..	..	1	..	..	..
Soap manufacturer	1	..	..	..	..	..
Soldier	1	..	..	..	..	..
Solicitor	1	..	2	1	..	2
South American merchant .. ..	..	..	..	1	..	..
Stageman .. ..	..	..	..	1	..	..
Stationer	1	..	..	..	..	..
Steam launch captain .. ..	..	..	..	1	..	..
Steward	3	..	7	2	1	..
Stoker	1	..	2	2	3	..
Stonemason	3	..	3	5	2	7
Storekeeper	1	..	1	1	1	..
Striker .. ..	..	..	..	1	2	..
Surveyor.. ..	1	..	..	..	..	..
Tailor	6	..	2	3	1	3
Tallow chandler .. ..	..	..	1	..	..	..
Teacher .. ..	..	1	..	..	1	..
Tea dealer	1	..	2	..	..	..
Team owner .. ..	..	..	1	..	..	..
Timekeeper .. ..	..	..	1	..	..	1
Tin smith .. ..	..	..	1	2	..	..
Tool grinder	1	..	..	..	..	..
Training ship pupil	2	..	..	..	..	..
Tramcar driver .. ..	..	..	1	..	..	..
Tripe dealer	1	..	..	..	..	..
Tripe dresser	1	..	..	..	..	..
Tug boat captain	2	..	1	..	..	1
Tug boat mate .. ..	..	..	..	1	..	..
Unknown	6	5	..	..	..	2
Upholsterer .. ..	..	..	2	..	..	..
Van driver	3	..	1	1	..	..
Vocalist .. ..	..	..	..	1	..	..
Warehouseman	2	..	2	2	3	3
Warehouse owner.. ..	1	..	..	..	..	..
Watch maker	1	..	..	..	1	..
Watchman	1	..	..	2	..	..
Waterman .. ..	..	..	..	1	..	..
Weight taker .. ..	..	..	1	..	1	..
Wharfinger .. ..	..	..	1	1	..	..
Wheelwright	1	..	1	2	3	4
White smith	1	..	..	..	1	..
Wine merchant .. ..	..	..	1	..	..	2
Yardman	1	..	..	..	..	..



