[Report 1913] / Medical Officer of Health, Nottingham City.

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CITY OF NOTTINGHAM.

ANNUAL HEALTH REPORT

FOR

1913.

BY

PHILIP BOOBBYER, M.D.,

MEDICAL OFFICER OF HEALTH,

MEDICAL SUPERINTENDENT OF ISOLATION HOSPITALS,

SUPERINTENDENT MEDICAL OFFICER OF SCHOOLS.

Nottingham:

THOS. FORMAN AND SONS, SHERWOOD STREET.

CITY OF NOTTINGHAM.

1913—1914.

HEALTH COMMITTEE.

COUNCILLOR FREDERICK BALL, MAYOR.

Chairman :—

COUNCILLOR JOHN GODFREE SMALL.

Vice-Chairman :—

ALDERMAN SAMBORNE COOK, J.P.

ALDERMAN BARNETT.	COUNCILLOR CULLEN.
,, JELLEY, J.P.	,, GIBSON.
,, LLOYD.	,, GODDARD.
,, MARLOW.	,, HUTTON.
,, WHITE.	,, LEE.
COUNCILLOR FREDK. BALL.	,, OFFILER.
,, BOWLES.	,, PENDLETON, J.P.
,, COUPE.	,, SPRAY.
,, CRANE.	,, YOUNG, W. A.

Numerous changes have taken place in the constitution of the Health Committee during the year. The names here given are those of Aldermen and Councillors who have served upon the Committee in the course of the year.

TO THE CHAIRMAN AND MEMBERS OF THE HEALTH COMMITTEE OF THE NOTTINGHAM CORPORATION.

GENTLEMEN,

I have now the honour to present you with my 25th Annual Report as Medical Officer of Health for Nottingham. Eight of the reports have been for Nottingham as a Borough and seventeen as a City.

The population of the City at the middle of 1913 was estimated at 264,735, as compared with a census figure of 259,904 in 1911.

The birth-rate continues to fall. It was equal to only 22·61 per 1,000 living in 1913, as compared with 23·56 in 1912, and 28·3 ten years earlier.

The crude general death-rate of the City was equal to 14·32 per 1,000 of population, which is fractionally lower than that of 1912, and no less than 1·68 below the average rate of the previous ten years.

The death-rate of infants under 1 year per 1,000 births was equal to 131, a rate 23 per 1,000 below the previous ten years' average, and greatly less than any of the rates recorded in the latter years of the last century.

The deaths from the group of diseases formerly known as the seven principal epidemic diseases of the Registrar-General's list numbered only 346, as compared with 381 in 1912, and an annual average of 486 for the 10 years ending with 1912.

Diarrhœa was more prevalent and fatal in 1913 than in 1912—owing to the greater warmth and dryness of the summer and autumn in the former year; but the other diseases of this group did relatively little mischief, causing only 126 deaths between them. The deaths from tuberculous disease, moreover, were less numerous by 30 than in 1912, and the death-rate from tubercle was below the rate of any year of which we have a reliable record.

Although the modern campaign against this disease has met with adverse criticism on more or less reasonable grounds in many of its details, there can be no doubt that it is already achieving a considerable measure of success. This result, however, is rather the outcome of educational influence indirectly exercised by the methods of cure and prevention advocated and adopted by public and private bodies, than the immediate fruit of preventive and remedial treatment provided by such bodies. It follows from this, that only those members and sections of the general community can materially benefit which are amenable to this influence; and, as the poorest are for the most part at present outside its pale, we cannot look at once for any marked diminution in the incidence of the disease upon them.

The conditions of life among the poor, especially the poor of our towns, often lamentably degraded and insanitary, are due to a congeries of causes, of which defective house accommodation is only one among many. But as defective housing is a highly important segment in a vicious circle of reciprocal causation, as it is remediable, and as the Local Authority is required by statute to see that it is remedied, the work of housing reform must unquestionably go on. A better environment must necessarily in the long run exert a physiological, an educational, as well as a physical influence, and on this fact, principally, is based our hope and definite expectation of the moral and physical improvement of the poor as a result of our efforts to amend their surroundings.

The number of dwellings dealt with by the Housing Department under the Housing of the Working Classes Acts, 1890-1909, either singly, or in small groups or blocks, during 1913, was 309, as compared with 440 in 1912. This number is additional to the 600 houses and other buildings upon the Carter-Gate-Manvers-Street unhealthy area described in a former report.

The scheme for the substitution of W.C.'s for pail-closets throughout the City, under which a subsidy of £2 10s. is paid for each pail-closet converted, is not proceeding so rapidly as one could wish, but the rate of progress has increased almost continuously from the outset, and will in all probability continue to do so as the superiority of the W.C. to the pail-closet comes to be generally recognized by the poorer sections of the community, and houses with W.C.'s preferred before those with pail-closets.

The health of all dense urban communities, but especially their poorer sections, is dependent to an extent which few people realize upon the character of the public scavenging in force. I am pleased to be able to state that the public scavenging of this City has undergone remarkable improvement in recent years.

The all-important health factor of personal habit, both within and without the house, is one much more difficult to touch among all classes of the community, but one which we confidently hope to influence for good, by theoretic education in its best sense, by better environment, and by object lessons of various kinds.

The Mothers' and Babies' Welcomes of the City continue to do an excellent and ever-increasing work in befriending, assisting, and instructing expectant and nursing mothers. The value of this work in safeguarding mothers and infants among the poor against dangers and injuries incidental to poverty and ignorance, it would be difficult to over-estimate.

I am,

Your obedient Servant,

PHILIP BOOBBYER.

TABLE I.

Nottingham. Population, Tenanted Houses, Marriages, Births and Deaths for 1913, and for the 10 years 1903-1912.

	Estimated Population.	Tenanted Houses.	† Marriages	Births.	Deaths.			Deaths in Public Institutions.
					Total at all ages.	Under One Year.	Under 5 Years.	
1913	264,735	64,578	2271	6102	3863	798	1116	850
1912	262,563	64,489	2225	6187	3823	730	1154	856
1911	260,447	64,243	2195	6338	4206	1032	1488	935
1910	266,466	63,693	2234	6603	3754	846	1202	815
1909	263,441	62,816	2150	6746	4268	1009	1483	876
1908	260,449	61,887	2195	7037	4019	1026	1371	766
1907	257,492	60,963	2403	6882	4499	1154	1696	833
1906	254,567	59,828	2387	6759	4069	1158	1477	764
1905	251,677	58,902	2077	6645	4142	1031	1580	761
1904	248,811	58,000	2057	6880	4314	1239	1666	816
1903	245,985	56,784	2287	6945	4063	1144	1590	789
Average of the *ten* years 1903-1912.	257,190	61,160	2221	6702	4116	1037	1471	821

TABLE 1a.

Nottingham. Vital Statistics of Whole District during 1913, and previous years, in form required by the Local Government Board.

YEAR.	Population estimated to Middle of Year.	Births.			Total Deaths Registered in the District.		Transferable Deaths.		Net Deaths belonging to the District.			
		Uncorrected number	Net.						Under 1 year of age.		At all Ages.	
			Numb'r	Rate.	Numb'r	Rate.	Of Non-resid'ts registered in the District	Of Residents not registered in the District	Numb'r	Rate per 1000 Net Births.	Numb'r	Rate.
*1913.	264,735	6110	6102	22·614	4066	15·069	264	61	798	131	3863	14·316
1912	262,563	6203	6187	23·564	4019	15·306	241	45	730	118	3823	14·560
1911	260,447	6367	6338	24·335	4435	17·028	261	32	1032	163	4206	16·149

Area of District in acres (exclusive of area covered by water), 10,935. The only considerable water areas in the city are those of the River Trent (about a mile), of the River Leen, and of the Canal.

Total population at all ages 259,904
Number of inhabited houses .. .. .. 60,070 } At Census of 1911.
Average number of persons per house .. 4·3

* 1913 Nos. and rates for 53 weeks, except in case of population figures.

TABLE II.

Nottingham. Annual Rates for 1913, and the 10 years 1903-1912.

	Rate per 1000 of Population.		Per 1000 Births Deaths under 1 year.	Per 1000 of Total Deaths.		
	Birth Rate.	Death Rate.		Deaths under 1 year.	Deaths under 5 years.	Deaths in Public Institutions.
†1913	22·61	14·32	131	207	289	220
1912	23·56	14·56	118	191	302	224
1911	24·33	16·15	163	245	354	222
1910	24·78	14·09	128	225	320	217
1909	25·6	16·20	150	236	347	205
1908	27·02*	15·43*	146	255	341	191
1907	26·7	17·47	168	256	377	185
1906	26·55	15·98	171	285	363	188
1905	26·5	16·45	155	249	381	184
1904	27·7	17·34	176	287	386	189
1903	28·3	16·5	165	282	391	194
Average of the *ten* years 1903-1912.	26·10	16·02	154	251	356	200

* These rates are calculated on the mid-year population without correction for the 53rd week contained in 1908. When so corrected they fall to 26·6 and 15·2 respectively.

† 1913 numbers and rates for 53 weeks.

TABLE III. Schedule A—Nottingham. 19

No.	DISEASES.	AGES.								
		0–		1–		5–		10–		
		M	F	M	F	M	F	M	F	M
1	Small-pox (*a*) Vaccinated	..	..	..	..	..	..	..	..	..
	(*b*) Unvaccinated	..	..	..	..	..	..	..	..	..
	(*c*) No Statement	..	..	..	..	..	..	..	..	..
2	Measles	3	..	10	5	..	2	..	..	..
3	Scarlet Fever	..	2	2	5	2	2	..	1	1
4	Typhus Fever	..	..	..	..	..	..	..	..	..
5	Epidemic Influenza	..	..	..	..	..	..	..	..	..
6	Whooping-Cough	7	12	11	11	..	1	..	..	..
7	Diphtheria	..	..	6	8	7	9	2	5	..
8	Enteric Fever	..	..	..	..	..	1	1	..	1
9	Asiatic Cholera	..	..	..	..	..	..	..	..	..
10	Diarrhœa, Dysentery	62	54	14	14	..	..	..	..	..
11	Enteritis (under 2 years)	34	27	2	5	..	..	..	..	..
12	Cerebro-Spinal Fever	..	1	..	1	..	..	..	..	..
13	Chicken-Pox	..	1	..	1	..	..	..	..	..
14	Ophthalmia	..	..	1	..	..	..	..	..	..
15	*Other allied Diseases*	..	..	..	..	..	..	..	..	..
16	Hydrophobia	..	..	..	..	..	..	..	..	..
17	Glanders	..	..	..	..	..	..	..	..	..
18	Tetanus	..	..	..	..	1	..	..	..	1
19	Anthrax	..	..	..	..	..	..	..	..	..
20	Cowpox	..	..	..	..	..	..	..	..	..
21	Syphilis	4	12	1	1	..	..	..	..	..
22	Gonorrhœa	..	..	..	..	..	..	..	..	..
23	Phagedæna	..	..	..	..	..	..	..	..	..
24	Erysipelas	..	..	..	..	..	..	..	..	..
25	Puerperal Sepsis	..	..	..	..	..	..	..	..	..
26	Pyæmia	1	..	..	1	..	..	..	..	..
27	Infective Endocarditis	..	..	..	..	..	1	..	1	..
28	*Other Allied Diseases*	..	..	..	..	..	..	..	..	..
29	Malarial Fever	..	..	..	..	..	..	..	..	..
30	Rheumatic Fever	..	..	..	..	..	..	..	..	..
31	Rheumatism of Heart	..	..	1	..	1	1	..	..	..
32	Tuberculosis of Brain	3	4	18	7	1	1	3	..	..
33	Tuberculosis of Larynx	..	..	..	..	..	..	..	..	..
34	Phthisis	1	1	2	5	1	..	1	4	10
35	Abdominal Tuberculosis	1	2	4	4	4	..	..	3	1
36	General Tuberculosis	..	..	2	..	1	..	..	..	..
37	Other forms Tuberculosis	..	1	..	1	..	..	..	..	..
38	Tuberculous Bones and Joints	..	..	..	..	1	..	..	..	..
39	*Other Infective Diseases*	..	..	..	..	..	..	..	..	..
40	Thrush	1	..	1	..	..	..	..	..	..
41	Actinomycosis	..	..	..	..	..	..	..	..	..
42	Hydatid Diseases	..	..	..	..	..	..	..	..	..
43	Scurvy	..	..	..	..	..	..	..	..	..
44	*Other Diseases due to Altered Food*	..	..	..	..	..	..	..	..	..
45	Acute Alcoholism	..	..	..	..	..	..	..	..	..
46	Chronic Alcoholism	..	..	..	..	..	..	..	..	..
47	*Chronic Industrial Poisonings*	..	..	..	..	..	..	..	..	..
48	*Other Chronic Poisonings*	..	..	..	..	..	..	..	..	..
	TOTALS	117	117	75	69	19	18	7	14	14

ths Registered from all causes.

AGES.															All Ages.		Totals.	No.
– F	25– M	 F	35– M	 F	45– M	 F	55– M	 F	65– M	 F	75– M	 F	85– M	 F	M	F		
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13	7	20	2
..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	6	11	17	3
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4
..	4	2	..	2	3	..	4	1	1	2	..	1	1	1	13	9	22	5
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	18	24	42	6
..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	16	23	39	7
1	1	1	1	..	..	..	1	..	..	..	..	..	..	..	5	3	8	8
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9
..	..	..	..	1	1	..	2	..	2	1	1	..	..	..	82	70	152	10
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	36	32	68	11
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	12
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	13
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	14
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	16
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	17
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2	18
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	19
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	20
..	..	3	1	..	..	..	1	..	..	..	..	..	..	..	7	16	23	21
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	22
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	23
..	1	..	1	..	2	..	..	..	2	..	..	..	..	..	6	..	6	24
2	..	6	..	2	..	..	..	..	..	..	..	..	..	..	..	11	11	25
..	1	..	..	1	..	1	1	..	..	..	..	..	..	..	3	3	6	26
..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	4	4	27
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	28
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	29
..	1	2	..	..	2	..	2	..	..	1	1	..	..	..	6	3	9	30
..	..	1	..	2	..	..	..	..	..	..	1	..	..	..	3	4	7	31
..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	26	12	38	32
1	1	..	..	..	1	..	..	..	..	..	..	..	..	..	2	1	3	33
16	40	33	34	29	40	17	21	10	5	4	2	..	..	..	173	127	300	34
1	1	..	..	..	..	..	1	..	..	..	..	..	..	..	12	10	22	35
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	3	36
..	1	..	..	1	1	..	1	..	..	1	..	..	..	..	3	5	8	37
..	..	..	..	..	..	1	1	..	1	..	..	..	..	..	3	2	5	38
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	39
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2	40
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	41
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	42
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	43
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	44
..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1	45
..	..	1	4	1	5	3	1	..	..	..	..	..	..	..	10	5	15	46
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	47
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	48
21	52	49	43	40	55	24	37	11	11	9	5	1	1	1	452	386	838	

TABLE III. Schedule A—Nottingham. 19

No.	DISEASES.	AGES.								
		0–		1–		5–		10–		1
		M	F	M	F	M	F	M	F	M
49	Osteo-Arthritis	..	..	..	..	..	..	..	..	..
50	Gout	..	..	..	..	..	..	..	..	..
51	Cancer	..	..	..	..	..	..	..	..	1
52	Sarcoma	..	..	..	..	..	1	..	..	..
53	Diabetes Mellitus	..	..	..	..	..	..	1	..	1
54	Purpura Hæmorrhagica	..	..	..	..	..	..	..	..	..
55	Hæmophilia	..	..	..	..	..	..	..	..	..
56	Anæmia	..	..	..	..	..	..	..	..	..
57	Leukæmia	1	..	..	..	..	..	..	..	..
58	Lymphadenoma	..	..	..	..	2	..	..	..	..
59	Acromegaly	..	..	..	..	..	1	..	..	..
60	Exophthalmic Goitre	..	..	..	..	..	..	..	..	..
61	Premature Birth	..	..	..	..	..	..	..	..	..
62	Injury at Birth	68	73	..	..	..	..	..	..	..
63	Debility at Birth	2	4	..	..	..	..	..	..	..
64	Atelectasis	28	18	..	..	..	..	..	..	..
65	*Congenital Defects*	12	4	..	..	..	..	..	..	..
66	Want of Breast Milk	24	23	3	3	1	1	..	..	..
67	Atrophy, Debility, Marasmus	..	3	..	..	..	..	..	..	..
68	Dentition	34	31	6	2	..	..	..	..	..
69	Rickets	2	4	3	..	..	..	..	..	..
70	Old Age, Senile Decay	4	..	...	2	..	..	..	..	..
71	Convulsions	..	..	..	..	..	..	..	..	..
72	Meningitis	21	16	6	5	..	..	..	..	..
73	Encephalitis	3	3	3	1	1	1	1	1	1
74	Apoplexy	..	..	..	..	..	..	..	..	..
75	Softening of Brain	..	..	..	..	..	..	..	..	..
76	Hemiplegia	..	..	..	..	..	..	..	..	..
77	General Paralysis of Insane	..	..	..	..	..	..	..	..	..
78	Other forms of Insanity	..	..	..	..	..	..	..	..	..
79	Chorea	..	..	..	..	..	..	..	..	..
80	Cerebral Tumour	..	..	..	1	..	..	..	..	..
81	Epilepsy	1	..	..	..	..	..	...	..	..
82	Laryngismus Stridulus	..	..	..	...	..	1	1	..	1
83	Locomotor Ataxy	..	..	1	..	..	..	..	..	..
84	Paraplegia	..	..	..	..	..	..	..	..	..
85	Neuritis, Peripheral Neuritis	..	..	..	..	..	..	..	..	..
86	Bulbar Paralysis	..	..	..	..	..	..	..	..	..
87	Spinal Sclerosis	..	..	..	..	..	..	..	..	..
88	Paralysis Agitans	..	..	..	..	..	..	..	..	..
89	Idiopathic Muscular Atrophy	..	..	..	..	..	..	..	..	..
90	Disseminated Sclerosis	..	..	..	..	..	..	..	..	..
91	Myelitis	..	..	..	..	..	..	..	..	..
92	*Other forms, Brain Diseases*	..	..	..	..	..	..	..	..	..
93	Otitis	..	..	..	..	..	..	..	..	...
94	Disease of Nose, Epistaxis	..	..	1	..	..	1	..	..	..
95	Diseases of Eye	..	1	..	..	..	..	..	..	..
96	Pericarditis	..	..	..	..	..	..	..	..	..
97	Endocarditis	..	..	..	..	..	..	..	..	..
98	Hypertrophy of Heart	..	..	..	..	1	3	3	1	..
99	Angina Pectoris	..	..	..	..	..	..	..	..	..
	TOTALS	200	180	23	14	5	9	6	2	4

ths Registered from all causes—continued.

AGES.															All Ages.		Totals	No.
F	25– M	F	35– M	F	45– M	F	55– M	F	65– M	F	75– M	F	85– M	F	M	F		
..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1	49
..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	1	1	2	50
..	2	2	4	19	20	41	36	53	34	48	17	21	1	1	115	185	300	51
..	2	1	2	1	1	3	3	2	1	2	..	..	..	..	9	11	20	52
1	2	..	3	2	3	5	4	3	2	2	1	1	..	..	18	15	33	53
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	54
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	55
..	..	1	1	1	3	1	2	..	2	1	..	..	..	..	9	4	13	56
..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	2	1	3	57
..	..	..	..	..	2	..	..	..	1	..	..	..	..	..	3	1	4	58
..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	59
..	..	1	..	..	..	1	1	..	..	..	..	..	..	..	1	2	3	60
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	68	73	141	61
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	4	6	62
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	28	18	46	63
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12	4	16	64
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	28	28	56	65
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3	66
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	40	33	73	67
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	4	9	68
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	2	6	69
..	..	..	..	..	..	..	1	..	10	16	37	51	16	21	64	88	152	70
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	27	21	48	71
..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	11	6	17	72
..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	73
..	..	1	2	5	10	9	16	24	31	31	15	25	2	2	76	97	173	74
..	..	..	..	..	..	1	..	4	2	3	2	1	..	..	4	9	13	75
..	..	..	..	..	..	..	1	..	3	3	2	2	..	..	6	5	11	76
..	2	1	5	..	4	..	4	..	..	..	..	..	..	..	15	1	16	77
..	..	..	1	1	2	1	3	2	11	4	13	6	1	1	31	16	47	78
..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	1	3	4	79
..	..	..	..	3	..	1	..	..	..	..	..	..	..	..	2	5	7	80
1	2	6	2	1	..	1	1	..	4	1	1	..	..	..	13	11	24	81
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	82
..	..	..	..	..	1	1	1	..	..	..	..	..	..	..	2	1	3	83
..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	2	2	84
..	..	..	1	2	1	4	..	2	..	1	..	..	..	..	2	9	11	85
..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	1	1	2	86
..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	1	87
..	..	..	..	..	..	..	..	1	..	..	..	2	..	..	..	3	3	88
..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1	89
..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	2	..	2	90
..	..	..	..	..	1	..	1	1	..	1	1	..	..	..	3	2	5	91
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	92
..	3	..	..	..	1	..	..	..	..	..	..	..	..	..	5	1	6	93
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	94
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	95
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	96
5	15	9	10	20	25	33	31	36	56	46	12	26	1	..	159	181	340	97
..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1	98
..	..	..	1	..	2	1	1	1	4	..	..	1	..	..	8	3	11	99
7	29	24	33	56	76	105	111	131	162	159	103	137	21	25	782	857	1639	

TABLE III. Schedule A—Nottingham. 19

No.	DISEASES.	AGES.								
		0–		1–		5–		10–		1
		M	F	M	F	M	F	M	F	M
100	Fatty Heart	..	..	..	..	..	..	..	..	..
101	Aneurism	..	..	..	..	..	..	..	..	..
102	Senile Gangrene	..	..	..	..	..	..	..	..	..
103	Embolism, Thrombosis	..	1	..	..	..	..	..	..	..
104	Phlebitis	..	..	..	..	..	..	..	..	..
105	Varicose Veins	..	..	..	..	..	..	..	..	..
106	Arterio Sclerosis	..	..	..	..	..	..	..	..	..
107	*Other Diseases, Heart and Vessels*	..	..	..	..	..	..	..	..	..
108	Laryngitis	1	..	2	1	..	..	..	..	..
109	Croup	..	..	1	..	..	..	..	..	..
110	*Other Diseases, Larynx and Trachea*	1	..	..	..	..	..	1	2	..
111	Acute Bronchitis	18	13	13	11	..	..	1	..	..
112	Chronic Bronchitis	..	..	..	..	..	..	..	..	..
113	Lobar Pneumonia	1	3	1	3	..	1	..	1	..
114	Lobular Pneumonia	32	34	30	31	..	1	1	..	..
115	Pneumonia	10	15	8	7	1	2	1	2	1
116	Emphysema, Asthma	..	..	..	..	..	..	..	..	..
117	Pleurisy	1	1	3	1	..	..	1	..	..
118	*Other Diseases, Respiratory System*	..	..	..	..	..	..	..	..	..
119	*Diseases of Mouth and Annexa*	..	..	..	..	..	..	..	..	..
120	Diseases of Pharynx	..	..	..	..	..	..	..	..	..
121	Diseases of Œsophagus	..	..	..	..	..	..	..	..	..
122	Ulcer of Stomach and Duodenum	..	..	..	..	1	..	1	..	..
123	Other Diseases of Stomach	7	1	..	1	..	..	1	..	..
124	Enteritis	..	..	2	1	..	..	..	..	..
125	Appendicitis	..	..	1	..	..	1	1	..	..
126	Obstruction of Intestine	1	..	1	1	..	..	..	..	..
127	Hernia	..	..	..	..	..	..	..	..	..
128	Other Diseases of Intestine	..	..	..	..	1	..	..	..	..
129	Cirrhosis of Liver	..	..	..	..	..	..	..	..	1
130	Gall Stones	..	..	..	..	..	..	..	..	..
131	Other Diseases of Liver	..	..	..	..	..	1	..	..	..
132	Peritonitis	1	..	1	..	..	..	..	..	..
133	*Other Diseases, Digestive System*	..	..	..	..	..	..	..	..	..
134	*Diseases, Lymphatic System and Glands*	..	..	..	..	..	..	..	..	..
135	Acute Nephritis	1	3	1	3	1	3	..	1	1
136	Bright's Disease	..	..	..	..	..	2	1	2	1
137	Calculus	..	..	..	..	..	..	..	..	..
138	Diseases of Bladder and Prostate	..	..	..	..	..	..	..	..	..
139	Stricture of Urethra	..	..	..	..	..	..	..	..	..
140	*Other Diseases, Urinary System*	..	..	..	..	..	..	..	..	..
141	Diseases of Testis and Penis	..	..	..	..	..	..	..	..	..
142	Diseases of Ovaries	..	..	..	..	..	..	..	..	..
143	Diseases of Uterus and Appendages	..	..	..	..	..	..	..	..	..
144	Diseases of Vagina and External Genitals	..	..	..	..	..	..	..	..	..
145	Diseases of Breast	..	..	..	..	..	..	..	..	..
146	Abortion, Miscarriage	..	..	..	..	..	..	..	..	..
147	Puerperal Mania	..	..	..	..	..	..	..	..	..
148	Puerperal Convulsions	..	..	..	..	..	..	..	..	..
149	Placenta Prævia, Flooding	..	..	..	..	..	..	..	..	..
150	Ruptured Uterus	..	..	..	..	..	..	..	..	..
	TOTALS	74	71	64	60	4	11	9	8	4

ths Registered from all causes—continued.

AGES.															All Ages.		Totals.	No.
F	25– M	F	35– M	F	45– M	F	55– M	F	65– M	F	75– M	F	85– M	F	M	F		
..	..	..	2	..	2	1	..	3	3	1	1	2	..	..	8	7	15	100
..	..	..	..	..	4	1	1	1	3	..	1	..	1	..	10	2	12	101
..	..	..	..	..	..	..	1	..	4	3	4	2	..	..	9	5	14	102
..	..	..	1	..	2	2	3	4	7	1	1	..	1	..	15	8	23	103
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	104
..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	2	2	105
..	..	..	1	..	3	1	5	4	6	6	5	6	2	..	22	17	39	106
..	..	1	1	..	3	3	1	1	15	11	14	14	4	4	38	34	72	107
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	4	108
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	109
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	4	110
2	1	1	1	1	1	5	7	11	5	15	3	5	..	..	52	65	117	111
1	..	..	3	1	7	8	24	21	41	52	31	39	3	10	109	132	241	112
2	3	2	2	2	3	1	5	2	4	2	1	1	..	..	21	20	41	113
..	..	1	..	1	3	1	4	..	2	7	..	3	..	1	72	80	152	114
1	2	2	4	5	13	3	9	5	3	3	5	5	..	4	59	55	114	115
..	..	..	2	1	1	..	3	1	4	..	1	3	..	..	11	5	16	116
1	..	..	2	..	..	..	1	..	..	1	..	..	..	..	9	4	13	117
..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	118
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	119
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	120
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	121
2	2	3	4	1	2	..	2	1	2	1	..	..	..	..	15	8	23	122
1	..	1	1	1	..	1	..	2	..	..	..	..	1	..	10	8	18	123
..	..	..	..	..	1	..	1	..	..	2	..	..	..	..	4	3	7	124
..	..	1	1	1	2	1	..	..	..	2	..	..	..	..	5	6	11	125
..	..	..	..	..	1	1	..	2	..	1	1	..	..	..	5	5	10	126
..	..	..	1	2	3	1	2	4	2	2	1	..	..	..	9	9	18	127
..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	1	2	128
..	..	1	1	1	9	4	5	4	1	1	..	..	..	..	17	11	28	129
..	..	..	..	..	..	1	..	4	..	1	..	1	1	..	1	7	8	130
..	..	..	..	..	1	..	2	1	..	..	..	..	1	..	4	2	6	131
..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	3	1	4	132
..	..	..	..	..	1	..	..	2	..	..	..	..	..	..	1	2	3	133
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	134
..	3	..	1	2	4	3	4	1	4	1	..	1	..	1	20	19	39	135
..	1	3	7	6	10	12	12	6	10	8	3	7	..	1	45	47	92	136
..	..	1	1	..	..	..	2	..	..	..	..	..	..	1	3	2	5	137
..	..	..	1	..	..	1	2	..	6	..	6	1	1	..	16	2	18	138
..	..	..	..	..	2	..	1	..	..	..	..	..	..	..	3	..	3	139
..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	2	..	2	140
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	141
..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	1	142
..	..	3	..	1	..	1	..	..	..	1	..	..	..	..	..	7	7	143
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	144
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	145
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	146
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	147
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	148
1	..	2	..	2	..	..	..	..	..	..	..	..	..	..	..	5	5	149
..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	150
11	14	24	37	30	78	54	99	81	122	122	78	90	15	22	606	588	1194	

TABLE III. Schedule A—Nottingham. 1

No.	DISEASES.	AGES.								
		0–		1–		5–		10–		
		M	F	M	F	M	F	M	F	M
151	Puerperal Thrombosis	..	..	..	..	..	..	..	..	..
152	*Other Diseases, Pregnancy and Childbirth*	..	..	..	..	..	..	..	..	..
153	Arthritis, Ostitis, Periostitis	..	..	..	..	..	..	..	1	..
154	*Other Diseases, Osseous System*	1	..	..	..	..	..	..	1	..
155	Abscess	..	1	..	1	..	..	..	..	
156	Ulcer, Bedsore	..	..	..	..	..	..	..	..	..
157	Eczema	2	..	..	..	..	..	..	..	..
158	Pemphigus	..	1	..	..	..	..	..	..	..
159	Carbuncle	..	..	..	..	..	..	..	..	..
160	Scurvy	..	2	..	..	..	..	..	..	..
161	*Other Diseases, Integumentary System*	..	1	..	..	..	..	..	..	..
	Accidents and Negligence:—									
162	In Mines and Quarries	..	..	..	..	..	..	..	..	..
163	In Vehicular Traffic	..	..	1	..	1	..	..	..	..
164	On Railways	..	..	..	..	..	..	..	..	..
165	On Ships, Boats, &c. (not drowning)	..	..	..	..	..	..	..	..	..
166	In Building Operations	..	..	..	..	..	..	..	..	..
167	By Machinery	..	..	..	..	..	..	..	..	..
168	By Weapons and Implements	..	..	..	..	..	..	..	..	..
169	Burns and Scalds	..	..	7	..	..	3	1	..	..
170	Poisons, Poisonous Vapours	..	..	..	..	..	..	..	..	..
171	Surgical Narcosis	..	..	..	..	..	..	..	..	..
172	Effects of Electric Shock	..	..	..	..	..	..	..	..	..
173	Corrosions by Chemicals	..	..	..	..	..	..	..	..	..
174	Drowning	..	..	2	..	1	..	1	..	1
175	Suffocation, Overlaid in Bed	19	7	..	..	..	..	..	..	..
176	,, Otherwise	1	..	..	..	1	..	..	..	..
177	Falls in House	..	..	..	..	..	..	..	..	..
178	,, Elsewhere	..	..	1	..	..	..	..	..	..
179	Weather Agencies	..	..	..	..	..	..	..	..	..
180	Otherwise, not stated	..	..	..	..	..	..	..	..	..
181	Homicide	1	2	..	..	..	..	..	..	..
	Suicides:—									
182	By Poison	..	..	..	..	..	..	..	..	..
183	By Asphyxia	..	..	..	..	..	..	..	..	..
184	By Hanging and Strangulation	..	..	..	..	..	..	..	..	..
185	By Drowning	..	..	..	..	..	..	..	..	..
186	By Shooting	..	..	..	..	..	..	..	..	..
187	By Cut or Stab	..	..	..	..	..	..	..	..	..
188	By Precipitation from Elevated Places	..	..	..	..	..	..	..	..	..
189	By Crushing	..	..	..	..	..	..	..	..	..
190	By other and unspecified methods	..	..	..	..	..	..	..	..	..
191	Execution	..	..	..	..	..	..	..	..	..
192	Sudden Death, Cause not ascertained	..	..	..	..	..	..	..	..	..
193	Ill defined and unspecified causes	..	..	..	..	..	..	..	..	..
194	Uncertified	1	..	1	..	..	..	..	..	..
	TOTALS, Pages 14 and 15	25	14	12	1	3	3	2	2	2
	TOTALS, Pages 12 and 13	74	71	64	60	4	11	9	8	4
	TOTALS, Pages 10 and 11	200	180	23	14	5	9	6	2	4
	TOTALS, Pages 8 and 9	117	117	75	69	19	18	7	14	14
	GRAND TOTALS	416	382	174	144	31	41	24	26	24

Numbers in this table for 53 weeks.

hs Registered from all causes—continued.

AGES.															All Ages.		Totals.	No.
F	25- M	F	35- M	F	45- M	F	55- M	F	65- M	F	75- M	F	85- M	F	M	F		
..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	1	151
1	..	2	..	4	..	..	..	..	..	..	..	..	..	..	..	7	7	152
..	..	..	..	..	..	1	..	1	2	5	..	2	..	..	2	10	12	153
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	154
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	3	155
..	..	..	..	..	..	1	..	1	..	1	..	..	..	1	..	4	4	156
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2	157
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	158
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	159
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	160
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	161
..	2	..	1	..	1	..	2	..	..	..	..	..	..	..	6	..	6	162
..	1	..	..	1	1	1	1	1	1	..	..	1	..	..	6	4	10	163
..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	2	..	2	164
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	165
..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	166
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	167
..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1	168
..	..	..	..	1	..	2	1	..	..	..	..	..	..	1	9	7	16	169
1	1	1	..	1	1	..	2	..	1	1	..	..	..	..	5	4	9	170
..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	3	3	171
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	172
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	173
..	2	..	1	..	2	1	1	1	..	..	..	..	..	..	12	2	14	174
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	19	7	26	175
..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3	176
..	..	..	..	..	4	..	1	1	2	1	2	1	1	..	10	3	13	177
..	1	..	..	2	..	..	..	2	..	..	1	1	..	..	4	5	9	178
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	179
..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1	180
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	3	181
..	..	2	2	1	..	..	..	1	1	..	..	..	..	..	3	5	8	182
..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	1	183
1	3	..	3	..	3	..	1	..	..	..	..	..	..	..	10	1	11	184
..	..	1	1	..	1	..	..	1	1	..	..	..	..	..	3	2	5	185
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	186
..	..	1	1	..	1	..	1	1	1	..	..	..	..	..	4	2	6	187
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	188
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	189
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	190
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	191
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	192
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	193
..	..	..	..	..	..	..	..	..	..	2	..	1	2	1	4	4	8	194
3	12	8	10	14	15	6	11	11	9	10	3	6	3	3	109	83	192	
11	14	24	37	30	78	54	99	81	122	122	78	90	15	22	606	588	1194	
7	29	24	33	56	76	105	111	131	162	159	103	137	21	25	782	857	1639	
21	52	49	43	40	55	24	37	11	11	9	5	1	1	1	452	386	838	
42	107	105	123	140	224	189	258	234	304	300	189	234	40	51	1949	1914	3863	

Schedule B.—Nottingham. 1913. Deaths Registered from all causes.

No.	Causes of Death.	All Ages.	Under 1	1—5	5—15	15—25	25—65	65 & upwards.	In Public Institutions.
1	Small-pox	..	..	..	..	..	..	..	..
2	Measles	20	3	15	2	..	..	..	..
3	Scarlet Fever	17	2	7	5	3	..	..	13
4	Typhus Fever	..	..	..	..	..	..	..	..
5	Epidemic Influenza	22	..	..	..	..	16	6	..
6	Whooping-cough	42	19	22	1	..	..	..	2
7	Diphtheria, Membranous Croup	39	..	14	23	..	2	..	26
8	Croup	1	..	1	..	..	..	..	..
9	Enteric Fever	8	..	..	2	2	4	..	4
10	Asiatic Cholera	..	..	..	..	..	..	..	..
11	Diarrhœa, Dysentery	152	116	28	..	..	4	4	5
12	Enteritis (under 2 years) ..	68	61	7	..	..	..	..	3
13	Enteritis	7	..	3	..	..	2	2	2
14	Cerebro-Spinal Fever	2	1	1	..	..	..	..	1
15	Chicken-pox	2	1	1	..	..	..	..	..
16	Ophthalmia	1	..	1	..	..	..	..	1
17	*Other continued Fevers*	..	..	..	..	..	..	..	..
18	Erysipelas	6	..	..	..	..	4	2	2
19	Puerperal Sepsis	11	..	..	..	3	8	..	4
20	*Other septic diseases*	..	..	..	..	..	..	..	..
21	Intermittent Fever and Malarial Cachexia	..	..	..	..	..	..	..	..
22	Tuberculosis of Meninges ..	38	7	25	5	..	1	..	5
23	Tuberculosis of Lungs	300	2	7	6	50	224	11	93
24	Other forms of Tuberculosis ..	41	4	11	9	5	10	2	14
25	Alcoholism	16	..	..	..	..	16	..	2
26	Cancer	320	..	..	1	2	192	125	80
27	Premature Birth	141	141	..	..	..	..	..	3
28	Developmental Diseases	124	115	6	2	1	..	..	12
29	Old Age	152	..	..	..	..	1	151	17
30	Meningitis	17	6	4	4	2	1	..	2
31	Inflammation and Softening of Brain	13	..	..	..	..	5	8	4
32	Organic Diseases of Heart ..	529	1	..	8	12	240	268	115
33	Acute Bronchitis	117	31	24	1	5	28	28	5
34	Chronic Bronchitis	241	..	..	..	1	64	176	60
35	Lobar (Croupous) Pneumonia ..	41	4	4	2	3	20	8	21
36	Lobular (Broncho-Pneumonia) ..	152	66	61	2	..	10	13	8
37	Diseases of Stomach	41	8	1	3	4	21	4	14
38	Obstruction of Intestines ..	10	1	2	..	1	4	2	5
39	Cirrhosis of Liver	28	..	..	..	1	25	2	7
40	Nephritis and Bright's Disease ..	131	4	4	10	2	75	36	31
41	Tumours and other Affections of Female Genital Organs ..	8	..	..	..	1	6	1	3
42	Accidents and Diseases of Parturition	15	..	..	..	3	12	..	1
43	Deaths by Accident or Negligence	117	30	11	8	4	50	14	37
44	Deaths by Suicide	31	..	..	..	2	26	3	4
45	Deaths from Ill-defined Causes ..	..	..	..	..	..	..	..	..
46	All other Causes	842	175	58	28	20	309	252	244
	All Causes	3863	798	318	122	127	1380	1118	850

Nos. in this table for 53 weeks.

TABLE IV.

Nottingham City. INFANT MORTALITY. 1913.

Net Deaths from stated causes at various Ages under One Year of Age.

CAUSE OF DEATH.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 4 Weeks.	4 Weeks and under 3 Months.	3 Months and under 6 Months.	6 Months and under 9 Months.	9 Months and under 12 Months.	Deaths under One Year.		
										M.	F.	Total
ALL CAUSES { Certified	176	41	32	31	280	154	162	114	87	412	385	797
ALL CAUSES { Uncertified ..	1	..	..	..	1	..	..	..	..	1	..	1
Small-pox	..	..	..	..	..	..	..	..	..	..	..	..
Chicken-pox	..	..	..	..	..	..	1	..	..	..	1	1
Measles	..	..	..	..	..	..	1	1	1	2	1	3
Scarlet Fever	..	..	..	..	..	..	..	1	1	..	2	2
Whooping-Cough	..	..	..	..	..	3	5	8	3	6	13	19
Diphtheria and Croup	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas	..	..	..	..	..	..	..	..	..	..	..	..
Tuberculous Meningitis	..	..	..	..	..	..	2	2	3	3	4	7
Abdominal Tuberculosis	..	..	..	..	..	..	..	1	2	1	2	3
Other Tuberculous Diseases ..	..	1	..	..	1	..	..	1	1	1	2	3
Meningitis (*not Tuberculous*) ..	..	..	..	..	..	2	2	1	1	3	3	6
Convulsions	8	3	1	1	13	11	4	5	4	20	17	37
Laryngitis	..	..	..	..	..	..	1	..	..	1	..	1
Bronchitis	..	1	..	..	1	8	6	12	4	18	13	31
Pneumonia (all forms)	..	1	3	4	8	21	24	20	22	42	53	95
Diarrhœa	..	1	1	1	3	27	47	21	18	63	53	116
Enteritis	..	2	3	2	7	8	25	15	6	33	28	61
Gastritis	..	..	..	..	..	5	2	1	..	7	1	8
Syphilis	..	..	4	1	5	7	2	1	1	4	12	16
Rickets	..	..	..	..	..	1	1	2	..	4	..	4
Suffocation, overlying	3	2	2	2	9	11	4	2	..	19	7	26
Injury at Birth	4	..	..	1	5	1	..	..	..	2	4	6
Atelectasis	12	3	1	..	16	..	..	..	..	12	4	16
Congenital Malformations ..	19	5	2	2	28	12	2	4	1	24	23	47
Premature Birth	103	14	7	4	128	9	3	..	1	68	73	141
Atrophy, Debility and Marasmus	22	7	6	12	47	24	24	10	6	62	49	111
Other causes	5	1	2	1	9	4	6	6	12	17	20	37
TOTALS	177	41	32	31	281	154	162	114	87	413	385	798

Net Births in the Year—Legitimate, 5,699; Illegitimate, 403.
Net Deaths in the Year of—legitimate infants, 697; illegitimate infants, 101.
Death-rate per 1,000 Births of legitimate infants, 122; illegitimate infants, 251.
Nos. in this table for 53 weeks.

TABLE V.

Nottingham, 1913. Deaths and Death-Rates from certain groups of Diseases.

A. All Ages.	Deaths.	Deaths per 1000 of the *population.*	Deaths per 1000 *total Deaths.*
1. Principal Epidemic Diseases ...	346	1·28	89
2. Pulmonary Diseases	696	2·58	180
3. Tuberculous Diseases	379	1·40	98
B. Infants under 1 year of Age.	Deaths.	Deaths per 1000 *Births.*	Deaths per 1000 *Deaths under 1 year.*
4. Wasting Diseases ...	255	41·8	320
5. Convulsive Diseases	49	8·0	61

NOTES.

1. Includes Small-pox, Measles, Scarlet Fever, Diphtheria, Whooping-Cough, Typhus, Enteric, and Simple Continued Fevers, and Diarrhœa.
2. Includes all Respiratory Diseases except Phthisis (Consumption).
3. Includes Tuberculous Phthisis, and other forms of Tuberculosis.
4. Includes Marasmus, Atrophy, Wasting, Debility, Inanition, Premature Birth, and Improper Feeding.
5. Includes Infantile Meningitis, Convulsions, and Dentition.

N.B.—This Table is now retained only to allow of comparison between present and past records.

NOTE.—Numbers and rates for 53 weeks.

TABLE VI.

Nottingham. Deaths from the Principal Epidemic Diseases in the ten years 1903-1912, and in the Year 1913.

Disease.	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	Ten Years, 1903-1912. Annual Average.	Ten Years, 1903-1912. Proportion of Deaths to 1000 Deaths.	1913. Deaths.	1913. Proportion of Deaths to 1000 Deaths.
Small-pox	2	12	1	..	..	..	..	1	..	..	1·6	0·39	..	..
Measles	98	44	232	5	203	31	143	54	96	160	106·6	25·90	20	5·18
Scarlet Fever	34	29	19	17	5	11	10	14	9	23	17·1	4·15	17	4·40
Diphtheria	60	69	49	41	42	30	26	29	31	26	40·3	9·79	39	10·10
Whooping-Cough	90	91	61	40	131	64	59	63	39	71	70·9	17·22	42	10·87
Fevers. Typhus	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fevers. Enteric	36	57	24	40	37	29	19	13	28	14	29·7	7·21	8	2·07
Fevers. Simple Continued ..	..	..	..	1	..	..	..	..	..	..	0·1	0·02	..	..
Diarrhœa	166	346	202	375	155	171	163	96*	435*	87*	219·6	53·35	220*	56·95
Total	486	648	588	519	573	336	420	270	638	381	485·9	118·06	346	89·57
Total, London	8,166	9,990	7,990	9,047	6,720	6,599	6,285	5,559	9,858	4,869	7,508	108·80	6,201	95·34
Total, England & Wales	49,150	65,633	51,581	60,063	43,953	46,306	40,029	35,736	68,126	36,122	49,670	95·95	44,347	87·81

* Total Deaths from Diarrhœa at all ages. The Registrar-General now gives only the Diarrhœa Deaths under 2 years.
1913 numbers and rates for 53 weeks, excepting the total for England and Wales.

Birth-Rate, Death-Rate, Infantile Death-Rate, and Death-Rate from the Principal Epidemic and Tuberculous Diseases.

I. NOTTINGHAM.

In five yearly periods, 1856—1890, and in single subsequent years.

	Birth-Rate per 1000 living	Death-Rate per 1000 living	Infantile Death-Rate.	DEATH-RATE PER 1000 LIVING FROM								
				7 Princp. Epidemic Diseases.	Small-Pox.	Measles.	Scarlet Fever.	Diph-theria.	Whooping-Cough.	"Fever."	Diarrhœa	Phthisis and other Tuberculous Diseases. *
1856–1860	36·8	27·2	209	5·98	0·21	0·80	1·08	0·13	0·76	1·02	2·00	3·22
1861—1865	34·8	24·9	192	3·83	0·09	0·43	0·98	0·12	0·51	0·78	1·09	3·19
1866—1870	31·3	23·8	200	4·34	0·07	0·44	0·73	0·09	0·51	0·92	1·57	2·78
1871—1875	34·1	24·9	192	4·30	0·79	0·31	0·53	0·02	0·26	0·84	1·53	2·42
1876—1880	34·6	21·7	175	3·00	0·00	0·35	0·62	0·03	0·43	0·34	1·06	1·85
1881—1885	36·6	20·9	174	3·22	0·06	0·41	0·77	0·12	0·46	0·31	1·09	1·99
1886—1890	30·4	17·9	168	2·39	0·01	0·42	0·11	0·06	0·45	0·31	1·04	1·52
1891	29·8	19·5	169	2·49	0·00	0·51	0·13	0·09	0·56	0·32	0·84	1·69
1892	29·4	18·4	167	2·33	0·00	0·55	0·19	0·13	0·54	0·16	0·73	1·42
1893	30·2	18·4	172	2·62	0·02	0·11	0·37	0·07	0·27	0·31	1·47	1·81
1894	28·6	16·7	174	2·42	0·01	0·60	0·23	0·08	0·53	0·28	0·60	1·80
1895	29·7	18·5	189	2·64	..	0·00	0·23	0·04	0·14	0·24	1·97	2·10
1896	29·4	17·5	168	2·47	..	0·88	0·11	0·06	0·39	0·34	0·69	1·89
1897	28·9	18·4	202	2·81	..	0·21	0·15	0·09	0·49	0·21	1·66	1·88
1898	28·8	17·2	178	2·37	..	0·44	0·14	0·10	0·25	0·24	1·20	1·82
1899	28·9	20·0	210	3·33	..	0·58	0·23	0·13	0·23	0·48	1·68	1·67
1900	28·3	19·2	196	2·35	..	0·19	0·23	0·12	0·43	0·32	1·08	2·02
1901	28·4	18·5	193	2·86	..	0·41	0·05	0·12	0·42	0·35	1·51	1·80
1902	27·8	16·7	159	1·32	..	0·02	0·10	0·12	0·15	0·21	0·72	1·69
1903	28·3	16·5	165	2·05	0·01	0·39	0·14	0·26	0·39	0·14	0·68	1·68
1904	27·7	17·7	176	2·58	0·05	0·18	0·11	0·28	0·36	0·23	1·37	1·90
1905	26·5	16·5	155	2·27	0·00	0·92	0·07	0·19	0·24	0·09	0·76	1·63
1906	26·5	15·9	171	2·04	..	0·02	0·07	0·16	0·16	0·16	1·48	1·63
1907	26·7	17·5	168	2·23	..	0·79	0·02	0·16	0·51	0·15	0·61	1·77
1908	26·6	15·2	145	1·25	..	0·12	0·04	0·11	0·23	0·11	0·64	1·72
1909	25·7	16·3	150	1·67	..	0·54	0·04	0·10	0·22	0·08	0·69	1·67
1910	24·8	14·2	128	1·01	0·00	0·20	0·06	0·11	0·24	0·05	0·35	1·69
1911	24·5	16·1	162	2·36	..	0·37	0·03	0·12	0·15	0·11	1·58	1·70
1912	23·7	14·4	117	1·45	..	0·62	0·09	0·10	0·27	0·05	0·33	1·50
1913	22·6	14·3	131	1·28	..	0·07	0·06	0·15	0·15	0·03	0·83	1·43

II. ENGLAND AND WALES.

In five yearly periods, 1858–1890, and in single subsequent years.

1858—1860	34·3	22·2	153	4·03	0·22	0·48	0·89	0·37	0·49	0·79	0·78	3·31
1861—1865	35·1	22·6	151	4·22	0·22	0·46	0·98	0·25	0·52	0·92	0·87	3·31
1866—1870	35·3	22·4	159	4·08	0·10	0·43	0·96	0·13	0·55	0·85	1·06	3·20
1871—1875	35·5	22·0	153	3·76	0·41	0·37	0·76	0·12	0·50	0·60	1·00	2·96
1876—1880	35·4	20·8	144	2·94	0·01	0·39	0·68	0·12	0·53	0·38	0·83	2·82
1881—1885	33·4	19·3	139	2·32	0·01	0·41	0·43	0·16	0·46	0·27	0·65	2·54
1886—1890	31·4	18·9	145	2·25	0·01	0·46	0·24	0·17	0·44	0·20	0·66	2·32
1891	31·4	20·2	149	2·70	0·00	0·43	0·17	0·17	0·46	0·16	0·46	2·30
1892	30·5	18·9	148	2·78	0·01	0·46	0·19	0·22	0·45	0·14	0·50	2·14
1893	30·8	19·2	159	3·16	0·05	0·37	0·23	0·31	0·34	0·23	0·95	2·14
1894	29·6	16·6	137	2·25	0·02	0·39	0·16	0·29	0·41	0·16	0·36	1·97
1895	30·3	18·7	161	2·14	0·00	0·38	0·15	0·26	0·32	0·18	0·87	2·06
1896	29·7	17·1	148	2·18	0·02	0·56	0·18	0·29	0·41	0·17	0·55	1·89
1897	29·7	17·4	156	2·15	0·00	0·40	0·14	0·24	0·35	0·16	0·86	1·93
1898	29·4	17·6	161	2·22	0·01	0·41	0·11	0·24	0·31	0·18	0·96	1·91
1899	29·3	18·3	163	2·21	0·01	0·31	0·12	0·29	0·30	0·20	0·98	1·90
1900	28·9	18·3	154	2·00	0·00	0·39	0·12	0·29	0·34	0·17	0·69	1·90
1901	28·5	16·9	151	2·05	0·01	0·27	0·13	0·27	0·30	0·16	0·91	1·81
1902	28·6	16·3	133	1·64	0·08	0·38	0·15	0·23	0·29	0·13	0·38	1·74
1903	28·4	15·4	132	1·46	0·02	0·27	0·12	0·18	0·27	0·10	0·50	1·75
1904	27·9	16·2	146	1·94	0·01	0·36	0·11	0·17	0·34	0·09	0·86	1·78
1905	27·2	15·2	128	1·52	0·00	0·32	0·11	0·16	0·25	0·09	0·59	1·64
1906	27·0	15·4	133	1·73	0·00	0·27	0·10	0·17	0·23	0·09	0·87	1·65
1907	26·3	15·0	118	1·26	0·00	0·36	0·09	0·16	0·29	0·07	0·29	1·62
1908	26·5	14·7	121	1·29	0·00	0·22	0·08	0·15	0·27	0·07	0·50	1·59
1909	25·6	14·5	109	1·12	0·00	0·35	0·09	0·14	0·20	0·06	0·28	1·56
1910	24·8	13·4	106	0·99	0·00	0·23	0·06	0·12	0·24	0·05	0·29	1·43
1911	24·4	14·6	130	1·88	0·00	0·36	0·05	0·13	0·21	0·07	1·06	1·46
1912	23·8	13·3	95	0·98	0·00	0·35	0·05	0·11	0·23	0·04	0·20	1·35
1913	23·9	13·7	109	1·20	0·00	0·28	0·06	0·12	0·14	0·04	0·56	..

* The death-rate from Phthisis may be roughly estimated by multiplying this (General Tuberculosis) rate by 0·71 up to 1910, inclusive.

The City of Nottingham.

SITE and POPULATION DATA, and RATABLE VALUE, 1913.

Situation and Soil.—Nottingham lies in lat. 52 deg. 57 min. north, and long. 1 deg. 9 min. west, in the S.W. portion of the County of Notts., and in the watershed of the Trent. It stretches about 7½ miles north from the Trent, and has an average breadth of about three and a half miles. It stands for the most part on Bunter sandstone, but on the east the Keuper marls appear; on the north and west, red marl and magnesian limestone of the Permian series; and on the south towards the Trent, and in the valley of the Leen and other small streams, are found the alluvium and gravels of the Trent and its local tributaries.

Area and Altitude.—The City has an area of 10,935 acres, and its altitude varies from about 80 feet (at Trent Bridge) to 425 feet (on Woodborough Road) above ordnance datum (mean water level at Liverpool).

Population.—At census of 1881, 186,575; at census of 1891, 213,877; at census of 1901, 239,753; at census of 1911, 259,904.

Average number of persons to each house:—At census of 1881, 4·8; at census of 1891, 4·6; at census of 1901, 4·5; at census of 1911, 4·3.

Average number of persons to an acre, 24·21.

Ratable Value.—£1,266,962 (for Poor-Law purposes).

GENERAL VITAL STATISTICS.

Population.—It has been the practice of the Registrar-General and of Medical Officers of Health for many years past, to estimate the growth or decline of units of population during incomplete intercensal periods, on the assumption that the rate of growth or decline recorded during the last completed period has continued since its close. Owing, however, to the fact that the results obtained on this basis were in certain cases obviously unsatisfactory, the Registrar-General has in such instances adopted other criteria. I was consulted by him respecting the case of Nottingham, but being satisfied, from the number of empty houses and the relatively stagnant condition of staple local industries, that the local population had certainly not grown since 1911 at a more rapid rate than before that date, I was able to show that we should not be justified in assuming a larger estimated increment than that yielded by the above method of calculation. This method, therefore, has been adhered to on the present occasion.

At the census of 1911 the population numbered 259,904, showing an advance of 20,189 during the preceding decennium. At the middle of 1913 it is estimated by the method above described at 264,735. During the last intercensal period the actual increase revealed by a comparison of the two census figures was less by 6,350 than the excess of births over deaths during the 10 years. As the state of local trade does not appear to have undergone any material change since 1911, it is fair to suppose that a similar loss of population is still continuing. Emigration from the city is of course the channel through which such loss or leakage occurs.

Number of Persons of each sex at various age-periods in the Nottingham population, Census of 1911.

AGES.	Males.	Females.	Total.
Under 1 year	2,773	2,773	5,546
1 and under 2 years ..	2,609	2,706	5,315
2 ,, ,, 3 ,, ..	2,709	2,764	5,473
3 ,, ,, 4 ,, ..	2,683	2,789	5,472
4 ,, ,, 5 ,, ..	2,626	2,490	5,116
5 ,, ,, 10 ,, ..	12,061	12,742	24,803
10 ,, ,, 15 ,, ..	11,974	12,301	24,275
15 ,, ,, 20 ,, ..	11,016	13,552	24,568
20 ,, ,, 25 ,, ..	10,168	13,794	23,962
25 ,, ,, 30 ,, ..	10,510	13,204	23,714
30 ,, ,, 35 ,, ..	9,625	11,203	20,828
35 ,, ,, 40 ,, ..	8,753	9,867	18,620
40 ,, ,, 45 ,, ..	7,202	8,606	15,808
45 ,, ,, 50 ,, ..	6,643	7,790	14,433
50 ,, ,, 55 ,, ..	5,783	6,575	12,358
55 ,, ,, 60 ,, ..	4,541	5,296	9,837
60 ,, ,, 65 ,, ..	3,371	3,823	7,194
65 ,, ,, 70 ,, ..	2,497	3,163	5,660
70 ,, ,, 75 ,, ..	1,579	2,090	3,669
75 ,, ,, 80 ,, ..	811	1,241	2,052
80 ,, ,, 85 ,, ..	344	540	884
85 ,, ,, 90 ,, ..	102	165	267
90 ,, ,, 95 ,, ..	21	22	43
95 ,, ,, 100 ,, ..	—	7	7
100 years and upwards ..	—	—	—
Total Population .. .. (Census of 1911).	120,401	139,503	259,904

Estimated Population at middle of subsequent years:—

1912—262,563: Males 121,604 Females 140,959.
1913—264,735: ,, 122,621 ,, 142,114.

In former reports I have referred at some length to the alteration produced in the age-constitution of the population by the continuous fall in the birth-rate. I shall only say here that, although the birth-rate is generally declining, there are wide variations in the rates of different localities, and therefore widely different proportions of children and persons at other age-periods; and that as the normal death-rates are widely different at various age-periods, the age-constitution of the population must be carefully considered in any attempt to gauge the health of a community by its rate of mortality. For example, the average death-rate under 5 years for this country is about 50 per 1,000, whereas between 5 and 15 it is about 3 per 1,000, and only double this rate from the 15th to the 45th year. Between 45 and 65 years it averages 20 per 1,000, and over 65 rises to 80 per 1,000.

The respective proportions of the two sexes in the Nottingham population at the census of 1911 were in the ratio of 100 males to 115·9 females; in that of 1901, of 100 males to 114·6 females, and in that of 1891, of 100 males to 119 females. In the population of All England and Wales the sexual ratio is approximately as 100 males to 106·8 females. The excess of females above the normal in the Nottingham population is due to the abnormal demand for female labour in the staple local trades. The variations apparent in this ratio in successive census figures necessarily indicate fluctuations in this demand.

On the assumption that the sexual ratio revealed at the census of 1911 had continued unchanged until the middle of 1913, the estimated population of 264,735 at that date would consist of 122,621 males and 142,114 females.

There were at the middle of 1913, 96 towns and cities in England and Wales with individual populations of 50,000 and upwards, and an aggregate population of 17,852,766. London stands at the head of the list with a population of 4,518,191 without its suburbs, and 7,411,885 including these, Birmingham comes next to London with 859,644, Liverpool next to Birmingham with 756,553, and Manchester next to Liverpool with 730,976. There are eight cities below these with populations exceeding a quarter of a million, Nottingham being last on the list with 264,735. Newcastle-on-Tyne is next above it, with 271,295 ; and Portsmouth next below, with 241,256.

Of large cities in Scotland and Ireland, Edinburgh, Glasgow, Dublin, and Belfast have estimated populations ranging from 320,300 in Edinburgh, to 1,021,500 in Glasgow. The aggregate population of these four cities is 2,140,800.

There are 145 smaller towns, in England and Wales alone, with populations of between 20,000 and 50,000, and these contain an aggregate population of 4,669,918. This total, added to that of the great towns of England and Wales above referred to, makes up 22,522,684, which is equal to 61 per cent. of the entire population of England and Wales (36,919,339).

Besides the towns having populations of 20,000 and upwards, there are many others of lesser magnitude, the inclusion of which with those above given raises the total proportion of our urban population to a much higher figure even than 61 per cent. of the whole.

It is only by constant vigilance in sanitary matters on the part of both the local and central governing bodies, that such a huge population living under urban conditions can be maintained in a reasonably healthy

state. The amount of modern Public Health legislation directed to this end has been immense, but, in the opinion of persons of knowledge and experience of the matters dealt with by the various statutes, has not been in excess of the needs it was framed to meet. The huge and growing agglomerations of workers around every new hive of industry created by the extraordinary advance of manufacture and trade during the past century, had brought about a state of things among the working classes of our cities in the highest degree inimical to health and well-being. It was seen by those having a knowledge of the bearing of such conditions upon the health of the community, that, if our great commercial centres were to continue to exist and to grow as hitherto in recent years, certain rules of construction and maintenance must be observed for the working-class quarters at least, in order to protect their inhabitants against disease and moral and physical degeneration.

Marriages.—The marriages which took place in Nottingham during 1913 numbered 2,271. The total for 1912 was 2,225, and the average annual number during the 10 years 1903-1912 was 2,221.

The common method of expressing the rate of marriage in a community, is to show the number of persons of both sexes per 1,000 living who have been married in a given period. The marriage-rate of Nottingham, thus expressed, was equal to 17·1 during 1913, as compared with 16·95 during 1912, and 17·29 and 16·86 in the two preceding years, respectively. The corresponding marriage-rate in All England and Wales during 1913 was 15·5, and that in London, 18·3. The first is identical with, the second is fractionally lower than, the rate of the previous year. The London rate, however, is still unusually high.

The mean age at marriage is still advancing for both sexes. It is hardly necessary now to state that this is not the principal cause of the decline in the birth-rate. The mean age at marriage is now, approximately, 29 years for males, and 27 years for females. The table, below, gives the numbers of marriages in Nottingham during successive quarters of 1913, and during the whole year, which were celebrated, respectively, in Churches of the Establishment, in dissenting Chapels, and in Registry Offices.

Nottingham.
Marriages in Year 1913.

	Qr. I.	Qr. II.	Qr. III.	Qr. IV.	Total.
Churches	260	292	410	351	1313
Chapels	15	30	48	20	113
Registrars	191	188	215	251	845
	466	510	673	622	2271

On comparing the total numbers of marriages thus differently celebrated in 1913 with those of 1912, we find an increase of 17 in the church marriages, a decrease of 16 in the chapel, and an increase of 46 in those before registrars.

Births.—The births registered in Nottingham during 1913 numbered 6,102. This total is 85 below that of 1912, 600 below the average annual number for the 10 years ending with 1912, and (as was the case with that of 1912) the lowest since 1879, when the total was 6,068. In considering this fact, it must be remembered that the population of Nottingham has increased by more than 87,000 since 1879.

The birth-rate of the City for 1913 was equal to 22·61 per 1,000 living, which is 0·95 below the rate of 1912, 3·49 below the average rate for the 10 years 1903-1912, and again the lowest Nottingham birth-rate on record.

The decline of the birth-rate almost throughout the civilized world is now so general, and the subject has been so freely discussed, that to deal with it further at any length upon lines already traversed must lay one open to the charge of tedious iteration. I shall content myself therefore with a bare recital of salient facts.

The birth-rate of England and Wales has fallen 10 per 1,000 (approximately from 34 to 24 per 1,000 per annum) during the past 30 years. All over the continent of Europe, excepting large working-class communities, and the general population of places in countries like Russia, Spain, and Ireland, where the old-fashioned religious beliefs—of Christian and Jewish origin—concerning the sanctity of human life, retain their hold, the same or a similar fact obtains, with varying degrees of accentuation, and in some of our overseas dominions the fall is even more pronounced than in the older countries. The decline is due in great measure to wilful interference with natural fertility. The prevention of fertility is practised to a far larger extent by the more cultured and thrifty sections of the community than by those who now, with double significance, may be called the proletariat. Bath, Bournemouth, Ealing, Eastbourne, and Hastings have birth-rates between 14 and 15 per 1,000, while Rhondda, Rotherham, St. Helens, Stockton-on-Tees, and West Ham have rates above 30 per 1,000. Although the rates of the first list are necessarily more or less affected by the age-constitution and marital condition of the several populations, nevertheless, with all possible allowance on this score, they still serve to illustrate in a striking manner the facts above recorded.

The children born alive in Nottingham during 1913, as already stated, were 6,102 in number, and of these 3,066 were males and 3,036 females : the proportion of males to females was therefore as 1,009·9 to 1,000.

The males normally outnumber the females at birth, and to a much greater extent than this; in Nottingham during 1911, for example, the proportion was as 1,050 to 1,000. It is interesting to note that the disparity between male and female births is invariably less in England and Wales than in any other country in Europe. There is, however, no satisfactory known explanation of this fact.

The illegitimate children born alive in this City during 1913 numbered 403, 195 being male and 208 female. The illegitimate births were equal to 6·64 per cent. of all, as compared with 5·7, 6·4, and 6·35 per cent. in the three preceding years respectively. The illegitimate births in Nottingham are proportionately more numerous than those in London by about 60 per cent., and than those in England and Wales as a whole by about 50 per cent.

Under the Notification of Births Act, the notification of all births (live- and still-births alike) in a district, to the Medical Officer of Health of the district, is required. Under this statute 137 still-births were notified to me, principally by midwives, during the year (1913). The still-births so notified were equal to 2·2 per cent. of all births, and to 3·27 per cent. of all notified births. As, however, during 1913, as in former years, only the births attended by midwives were completely notified, the number of still-births occurring among these affords a better criterion of the ratio of such births to the total number of all births than any other method of calculation. This method, therefore, I have again adopted. The total number of births attended by midwives was 3,666, and of these 105, or 2·9 per cent., were still-births. We may, I think, therefore fairly assume that 2·9 per cent. represents, approximately, the actual proportion of still-births to total births in Nottingham during 1913.

Dr. Hamer, the Medical Officer of Health to the London County Council, gave 2·4 per cent. as the corresponding proportion in the County of London during 1912, and the fairly close approximation of this figure to our own (a difference of less than 0·5 per cent. if two places of decimals are taken) lends additional support to my conclusion that the method of calculation I have adopted is sufficiently reliable. In most of the large cities on the continent of Europe a larger proportion is given, but the difference is probably due to different methods of classification adopted in such centres, as compared with our own.

I may once more mention that if the medical men of the City were to do their legal duty under the Notification of Births Act, we should be furnished with a complete return of all the still-births which occur.

Deaths.—The deaths of people ordinarily resident in Nottingham which occurred in the City and elsewhere during the year 1913, numbered 3,863 according to my returns, and 3,805 according to those of the Registrar-General. The difference of 58, though considerable as a lump sum, amounts to less than 1·5 per cent. of the larger number, and to a death-rate of only 1 in 4,546. The larger number gives a death-rate per 1,000 per annum of 14·59, and the smaller one of 14·37. It is desirable to adopt the lesser figure when comparing the Nottingham mortality with that of other places, the statistics of which are furnished in the Registrar-General's reports, but in analysing the local mortality in detail it is necessary to adhere to the larger number.

In Table III, on pages 8 to 16 of this report, particulars are given of the 3,863 deaths of Nottingham people recorded by me during the year. Of these deaths, 1,949 were of males and 1,914 of females.

The crude, or uncorrected, death-rate of both sexes per 1,000 of population at the mid-year was equal to 14·59; that of males to 15·89 per 1,000 males, and that of females to 13·47 per 1,000 females. The male death-rate therefore exceeded the female by 2·42 per 1,000.

The male rate of mortality is normally higher than the female, and in the three immediately preceding years the male rate in this City exceeded the female by 2·43, 2·87, and 2·33 per 1,000, respectively. In England and Wales since 1876, we learn from the Registrar-General, there has been an average preponderance of the male over the female rate amounting to 2·04 per 1,000. The preponderance, moreover, has remained practically stationary during the past 38 years, although it had been steadily increasing prior to this period. If the female mortality in Nottingham during 1913 be expressed as 100, the male, in numerical relation thereto, will stand at 118. The corresponding figures for England and Wales will have been approximately 100 : 114.

Referring to the excess of male (over female) mortality, Dr. T. H. C. Stevenson, in his review of the vital statistics of England and Wales for 1912 contributed to the Registrar-General's Report for that year, states that this excess "is very unequally distributed, being large in infancy, negative in childhood, then gradually increasing to a maximum in later middle life, and from this period declining again with advancing age." He further states that the excess of mortality of males in infancy, and from phthisis, pneumonia, and violence, together amount to more than the total excess from all causes, which would be 38 per cent. greater than it actually is, but for the mortality of females from childbearing, and from cancer of the generative organs, causes of death peculiar or almost

peculiar to females. The excess in the mortality of males from all causes during the first year of life amounts to 0·761 per 1,000 living at all ages, or nearly half the total male excess.

The number of deaths of infants under one year per 1,000 births during the year, or the common infant death-rate of the year, amounted to 131. This is a low death-rate for Nottingham, only two annual rates having been lower—those of 1910 and 1912, which were 128 and 117 respectively. The average annual infant death-rate for the 10 years ending with 1912 was 154, and that for the preceding decennium, 184.

It is necessary once again to point out the impossibility of comparing the infant death-rates of particular years in a reliable manner, without considering the meteorological conditions of their summer and autumn seasons. Heat and drought bring prevalence of diarrhœal diseases, which are specially fatal to infants, and thus raise the infant death-rates, and cold and wet are inimical to the development of these diseases, and tend to keep the infant mortality at a low figure. These facts are true of all districts, but find their best illustration in the poorer parts of those of dense urban character, where defective scavenging and other insanitary conditions are most pronounced.

The deaths under one year referred to diarrhœa, enteritis, atrophy, debility, and marasmus, in this City, during 1913, amounted to 242, as compared with 477 and 183 in the two preceding years, respectively. The variation in these numbers may be taken as an index of the degree of variation in the meteorological conditions above referred to.

It has been shown by the statistics of our own Mothers' and Babies' Welcomes, by special reports of the Local Government Board, and by those issued by the Medical Officers of Health of many populous centres, and notably of Birmingham, that the mortality from diarrhœal diseases among infants is infinitely higher in the very poor and usually small tenements of the slum districts than elsewhere. In seasons of fairly low mortality from such causes, this mortality is almost exclusively confined to such very poor-class houses. The infective material of epidemic diarrhœa, and other like ailments, having once obtained a footing during hot weather in a filthy house—and many of these houses are extremely filthy—there is no lack of agencies for its propagation and of channels for its conveyance to the stomachs and bowels of susceptible persons, in such a dwelling.

The deaths under one year in Nottingham during 1913 are tabulated according to certified causes of death, and according to age in weeks, months, and quarters, on page 17 of this report. The table speaks for itself, but a brief analysis will be useful and interesting. The total number of deaths under one year was 798. Of this total, 177, or 22·2 per cent., took place in the first week; 281, or 35·2 per cent., in the first month; 435, or 54·5 per cent., in the first three months; and 597, or 74·8 per cent., in the first six months.

The deaths under one year in 1913 were more numerous by over 9 per cent. than those in 1912, but there was a remarkably close correspondence between the proportional numbers of all the deaths under one which occurred, in the periods here dealt with, in the two years. The proportional numbers of deaths in the first week and first month, respectively, were practically identical in the two years, at 22 per cent. and 35 per cent.; the proportion under three months

was 57 per cent. in 1912 and 55 per cent. in 1913 ; and, finally, the proportion under six months was 72 per cent. in 1912 and 75 per cent. in 1913.

I may here mention certain salient facts which stand out from this table of infant mortality, or a larger table similarly drawn up. Rather more than one-half of all the deaths under one year (about 55 per cent.) occur during the first three months ; of all the deaths during the first year those of males exceed the female by about 25 per cent. (in all England and Wales during 1912 the male excess was 26 per cent.) ; the excess of the male, as compared with the female, mortality, according to the Registrar-General, is most marked in the second and third months of the first year, and diminishes with more or less regularity after this period ; the deaths during the first three months of life are to a considerable extent due to causes ante-natal in origin, and therefore to such extent not capable of prevention by measures directed to the improvement of the health of the child, but only by those having for their aim the improvement of the health of the pregnant mother ; and, finally, the deaths from diarrhœal diseases are more numerous in the three to six months period of the first year than in any other quarter in Nottingham as in other urban centres.

The death-rates of infants under one year per 1,000 births during the year 1913, were 109 in England and Wales, and 117 in the 96 great towns including London, as compared with 95 and 101, respectively, in 1912. There was therefore an advance of 15 per cent. in the first, and 16 per cent. in the second, during 1913, upon the corresponding rates of the preceding year.

It is noteworthy as possibly bearing upon the Infant Welfare work so actively pursued in connection with our Mothers' and Babies' Welcomes, and our

housing improvement schemes in recent years, that although the summer and autumn of 1913 were exceptionally hot and dry, and therefore favourable to the development of diarrhœal diseases, the infant death-rate of the city showed an increase of only 11 per cent., while those of the great towns, and of England and Wales, showed increases of 16 per cent. and 15 per cent., respectively, as compared with the previous year's records.

The mortality of illegitimate infants during the year, expressed as the death-rate per 1,000 of such children born (although the actual number born was only 403), was 251, or more than twice the death-rate of the legitimate infants. These facts accord very closely with those of other recent years in Nottingham (the legitimate death-rates were 54 per cent. and 47·4 per cent., respectively, of the illegitimate, in 1911 and 1912), and with those recorded in the country as a whole. But it must be remembered that the illegitimate births occur for the most part among the poor, and that the mothers of illegitimate children are seldom in a position, even if they desire it, to give personal attention to their offspring during the working hours of the day.

According to the Registrar-General, the death-rate of illegitimate infants (under one year), as usual, exceeded that of the legitimate, from almost all the individual causes specially affecting infants, but the excess was very unequal in amount among the various causes, and in some (e.g., scarlet fever and whooping cough) there was practically no difference at all in the death-rates of the two classes of infants. The greatest predominance of the illegitimate over the legitimate death-rate occurred in the case of diarrhœal diseases and of syphilis. In the case of syphilis the proportional mortality was reputedly 7 times greater among

the illegitimate than the legitimate. I have said " reputedly," because it is at least conceivable that the disease may be more often openly certified in the case of the illegitimate than the legitimate, for the fact that there is usually less apparent reason for suppressing such a death-cause with the former than the latter.

The deaths of persons aged between 1 and 65 years in Nottingham, during 1913, were approximately at the rate of 8·0 per 1,000 of such persons living at the mid-year, in England and Wales of 7·5, in London of 8·0, in the 96 great towns of 8·2, and in the 145 smaller towns of 6·9. All these rates are relatively low.

The deaths of persons aged 65 years and upwards occurred at the rate of about 84·0 in Nottingham, of 80·3 in England and Wales, of 84·0 in London, of 84·1 in the 96 great towns, and of 79·7 in the 145 smaller towns. These rates, also, are all of them unusually low.

Registration Sub-Districts.—The areas of the Registration Sub-Districts of the City have undergone no change during the past year ; it is only in their buildings, domestic and industrial, and their populations that any material alteration has occurred.

The situation and areas of the sub-districts are shown by the maps facing pages 54, 64, and 76 of this report, and their populations and vital and other statistics in the table on page 40. Owing to the fact that these districts comprise areas of mixed urban and suburban, and rural and semi-rural character, with populations of divers social and industrial qualities, their statistics are lacking in the special characteristics of homogeneous neighbourhoods. If, however, these latter facts are borne in mind, a comparative study of the statistics of the several districts will prove both interesting and profitable.

The populations of all the districts, except S.W., were shown at the census of 1911 to have increased to some extent since that of 1901, but only that of Bulwell had advanced at all considerably—viz., from 41,888 in 1901, to 53,208 in 1911—an increase of 11,320, whereas the rest of the City, containing in 1901 two-thirds of the total population, had advanced by only 8,832.

Births in Registration Sub-Districts. 1913.

Sub-District.	Legitimate.		Illegitimate.		Total of each Sex.		Total of both Sexes.
	M.	F.	M.	F.	M.	F.	
Bulwell ..	647	653	60	61	707	714	1421
N.W... ..	662	648	42	34	704	682	1386
N.E.	716	710	44	46	760	756	1516
S.W.	437	374	15	29	452	403	855
S.E.	409	443	34	38	443	481	924
TOTALS ..	2871	2828	195	208	3066	3036	6102

The birth-rates ranged from 21·8 in N.E., to 25·35 in Bulwell, as compared with 22·6 for the city as a whole. There was an apparent fractional increase in the rate of the S.E. district, but elsewhere the shrinkage in the birth-rate was general. This shrinkage, moreover, now appears to be extending to the coal-mining communities, the normal fertility of which, except for the occasional production of abortion, has hitherto been free from artificial check.

The ratio of illegitimate to total births was again higher in Bulwell than elsewhere in Nottingham. The illegitimate births were equal to 8·5 per cent. of all in Bulwell, 7·8 per cent. in S.E., and less than 6 per cent. in all the other districts. The average proportion for the city as a whole was 6·6 per cent.

The crude general death-rates ranged from 12·4 per 1,000 in Bulwell, and 13·6 in S.W., to 15·0 in N.W., 15·5 in S.E., and 15·9 in N.E.

The infant death-rates per 1,000 births followed to a large extent the general death-rates, being low, at 104 and 115, respectively, in Bulwell and S.W., and high, at 133, 148, and 156, in N.W., N.E., and S.E., respectively.

The incidence of many of the principal epidemic diseases (of which small-pox, measles, scarlet fever, and diphtheria may be taken as typical) are largely dependent upon accidental causes, but certain members of the group (e.g., epidemic diarrhœa and enteric fever) are so intimately related to insanitary conditions, that this statement must only be accepted with a varied connotation to meet the different methods by which they are ordinarily communicated from person to person.

No case of small-pox was recorded in the city during the year.

Measles caused only 20 deaths altogether (as compared with 160 in 1913), and only one of these was in Bulwell, the further 29 being more or less evenly distributed in the other divisions.

Scarlet fever was far more prevalent in Bulwell and N.W. than elsewhere. Six hundred and sixty, out of 986 total cases, occurred in these two divisions, but, owing to the low case-fatality, the higher degree of incidence made no appreciable difference in the death-rates.

Diphtheria was distributed in a singularly even manner over the whole city, the range in the numbers of cases notified in the various sub-districts being only

from 70 and 80, respectively, in S.E. and S.W., to 90, 92, and 92 in N.E., N.W., and Bulwell, and the range in the numbers of deaths from 6 each in Bulwell and S.W., to 9 each in N.W., N.E., and S.E.

Whooping-cough caused 42 deaths altogether, and 33 of these were evenly distributed in the three northern districts of the city.

Enteric Fever, of which there were only 34 cases, with 8 deaths, during the year, was distributed with singular uniformity in all the sub-districts. There were three deaths from this cause in S.E., and two in N.W. The three other districts had one death each.

Diarrhœa was credited with 220 deaths, and these were distributed in such a relatively even manner that the district rates ranged only from 0·66 per 1,000 in N.W., 0·71 in Bulwell, and 0·84 in S.W., to 1·0 per 1,000 in N.E. and S.E.

So much for the principal infectious diseases of this climate.

Two other important death-causes call for special mention here, viz., cancer and phthisis.

The total number of deaths attributed to cancer in the city as a whole during 1913 was no less than 320, as compared with 271 in 1912, showing an increase of 18 per cent. during the more recent year. There was a substantial increase in all the sub-districts, excepting S.W. (where there was a decrease of 6), as compared with the preceding year, but in N.W. the excess was both actually and relatively to population far larger than elsewhere, and amounted to 38 per cent. (98 deaths in 1913, against 68 in 1912).

NOTTINGHAM SUB-DISTRICTS.

Summary of Statistics for 1913.

The Deaths and the Notifications are distributed over the Districts to which they properly belong.

	Population.					Births.	Birth Rate.	Deaths.			Death Rates.				DEATHS FROM											Notified Cases of								
	Census.				Estimated middle 1913.			Total.	Under 1 year.	From 7 prin. Epidemic Diseases.	Total per 1000 of population.	Under 1 year per 1000 Births.	From 7 prin. Epidemic Diseases per 1000 of pop.	From Phthisis per 1000 of pop.	Small-Pox.	Measles.	Scarlet Fever	Diphtheria.	Whooping-Cough.	Enteric Fever	Diarrhœa.	Influenza.	Cancer.	Phthisis.	Small-Pox.	Scarlet Fever	Diphtheria.	Enteric Fever.	Erysipelas.	Puerperal Fever.	Ophthalmia Neonatorum	Phthisis.	Other Tuberculous Diseases.
	1881.	1891.	1901.	1911.																													
Bulwell	26,712	34,262	41,888	53,208	56,050	1421	25·35	696	148	60	12·4	104	1·07	0·68	..	1	2	6	10	1	40	3	65	38	..	389	92	5	28	4	13	93	30
N.W.	39,574	53,699	58,388	61,351	62,016	1386	22·2	941	184	77	15·0	133	1·24	1·23	..	5	7	9	13	2	41	6	94	76	..	271	92	7	41	3	43	174	33
N.E. ..	53,911	63,870	66,274	68,947	69,496	1516	21·8	1104	224	95	15·9	148	1·37	1·48	..	3	4	9	10	1	68	8	87	103	..	161	90	7	68	6	25	202	45
S.W. ..	26,080	32,072	39,510	38,190	37,890	855	22·6	514	98	52	13·6	115	1·37	0·89	..	5	2	6	6	1	32	5	31	33	..	105	80	7	19	2	13	74	15
S.E. ..	40,295	29,974	33,692	38,208	39,282	924	23·5	608	144	62	15·5	156	1·58	1·28	..	6	2	9	3	3	39	..	43	50	..	60	79	8	34	..	19	122	16
The whole City	186,572	213,877	239,752	259,904 *	264,734	6102	22·61	3863	798	346	14·32	131	1·30	1·13	..	20	17	39	42	8	220	22	320	300	..	986	433	34	190	15	113	665	139

N.B.—Populations at Censuses of April 1881, 1891, 1901 and 1911, and Estimated for the middle of 1913.
Births and Deaths from Local Registrars returns, without correction.
Notified cases from Health Department Registers, without correction.
The 1911 Census figures of Bulwell and N.E. are subject to correction.
The rates in this table are calculated upon a population figure uncorrected for the 53rd week, which the statistical year included.

* The Official Census Returns published 12th July, 1912, contains this figure, which is less by 38 than that originally furnished by the Registrar-General.

The total number of deaths ascribed to phthisis was 300 in 1913, as against 306 in the preceding year. There was a well-marked decline in the numbers of deaths from this disease in all the sub-districts except N.E., but here there was an increase upon the total for 1912 of no less than 41 per cent. I am unable to offer any adequate explanation of this extraordinary fact. Theoretic considerations alone would have led us to infer that the causes of a diminishing prevalence which have been operative elsewhere would have been equally active here.

GENERAL REPORT.

PRINCIPAL EPIDEMIC DISEASES OF THIS COUNTRY.

I am pleased to state that on the present occasion there is only one discrepancy between the total numbers of deaths furnished, respectively, by my returns and those of the Registrar-General. This single discrepancy occurs in the case of the deaths from diarrhœa, and from enteritis among infants under two. According to my tables these deaths numbered 220, and according to those of the Registrar-General 201 only. The difference is due to the fact that the Registrar-General includes in his list only deaths from diarrhœa (as well as enteritis) under 2 years, whereas I include such deaths at all ages. There are very few deaths from diarrhœa after the 2nd year, but occasionally these are sufficiently numerous to create a serious difference in a case like this.

Small-Pox and Vaccination.—There was no case of small-pox reported in the city during 1913, but, as 43 cases were reported in the great towns, there was

Nottingham, 1913. Temperature, Rainfall, and Seasonal Incidence of Epidemic Diseases.

		Thirteen Four-weekly Periods Ending on													
		Jan. 25	Feb. 22	Mar. 22	April 19	May 17	June 14	July 12	Aug. 9	Sept. 6	Oct. 4	Nov. 1	Nov. 29	Jan. 3*	Total.
Mean Temperature		39·2	39·4	41·6	42·9	50·1	56·7	58·2	58·5	59·5	57·3	49·9	45·3	40·4	49·2
Rainfall in Inches		2·26	1·29	2·86	1·85	2·86	0·87	0·85	0·19	2·01	1·60	3·41	1·57	0·78	22·458
Onsets of ascertained Cases of	Small-Pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Scarlet Fever	84	70	47	54	51	39	44	45	65	56	114	173	157	999
	Diphtheria	28	20	12	11	22	16	35	43	41	43	64	59	52	446
	Enteric Fever	3	3	1	5	..	1	1	1	2	4	5	7	2	35
Recorded Deaths from	Measles	..	..	..	..	..	4	4	1	..	..	..	4	7	20
	Whooping-Cough ..	5	9	10	4	3	1	4	1	..	2	1	1	1	42
	Diarrhœa	5	7	2	5	6	3	4	6	50	72	34	12	8	214

The figures in this table are compiled from the weekly returns, and are therefore subject to some correction; also, as the dates of onset are taken instead of dates of notification in the case of the notifiable diseases, it will be found that the numbers here do not coincide with those of other tables dealing with the same subject, but giving dates of notification instead of dates of onset.

* Period of 5 weeks.

obviously no lack of foci from which the disease might have readily spread in the absence of effective precautions.

Twenty-eight of the 43 total cases occurred in seaports, including (among others) London, Southampton, Cardiff, Liverpool, Hull, and Middlesbrough, into which they were introduced from abroad, and from this we learn something of the nature and extent of the risk to which we are constantly exposed as a country very poorly protected by vaccination. The cases at inland centres were certainly derived from oversea infection, although not always definitely traceable to their source of origin, and every one of these cases may be regarded as an epidemic in embryo, which fortunately is not allowed to develop. The seaports are continually on their guard against the introduction of the disease, and the passing of suspects to inland centres is notified in a majority of cases, but some pass through without warning of any kind, as we knew to our cost in 1912.

It is perhaps an unfortunate circumstance that the public should repose such implicit confidence as they do in the preventive capacity (so far as small-pox infection is concerned) of public health officials, for it is probably because they do so that they neglect the infinitely more reliable safeguard of vaccination.

The accompanying table of vaccination statistics for Nottingham, from 1883 till the end of the first half of 1913 (the latest available), which I am able to publish through the kindness of the Clerk to the Guardians, shows that infant vaccination has declined almost continuously from practically 71 per cent. in 1902 to 39 per cent. in the first half of 1913.

Vaccination in the Parish of Nottingham. Summary of Statistics, 1883—1913.

Years.	Births. *	Percentage.			Certified as Insusceptible of Vaccination.	Had Small-Pox.	Certificates granted to "Conscientious Objectors."
		Successfully Vaccinated.	Died Unvaccinated.	Not finally accounted for.			
1883–88 ...	6194	74·3	12·4	13·0	10	...	...
1889	5398	67·3	12·0	12·1	12	...	...
1890	5084	69·8	11·7	14·0	11	...	...
1891	5033	67·1	12·0	16·0	8	...	...
1892	5142	63·8	12·0	16·2	15	...	...
1893	5193	64·4	13·4	17·7	24	...	...
1894 1st half-year	2632	62·5	12·7	11·2	9	...	...
1895 do.	2758	43·1	14·2	15·3	11	...	...
1896 do.	2728	29·4	11·7	16·4	3	...	...
†1896–97 ...	5313	18·97	15·60	52·88	3	...	...
†1897–98 ...	5391	23·05	17·23	30·47	4	...	684
‡1898–99 ...	5857	42·4	15·5	10·2	28	...	543
§†1899–1900 ...	6904	50·8	15·13	7·5	15	...	682
†1900–1901 ...	6699	57·83	14·73	10·7	21	...	1146
Jan. to Dec., 1901	6827	65.13	13·90	10·18	51	...	718
1902 1st half-year	3336	69·87	11·66	12·20	85	...	183
1902 entire year	6766	70·97	12·62	9·55	21	...	443
1903 1st half-year	3443	70·96	10·49	11·27	9	...	210
1903 2nd do.	3506	70·02	12·55	7·81	5	1	204
1904 1st half-year	3522	69·54	12·99	13·31	9	2	142
1904 2nd do.	3408	66·87	12·12	15·43	9	...	181
1905 1st half-year	3359	69·51	10·98	13·22	16	...	195
1905 2nd do.	3296	68·88	10·95	12·71	3	...	243
1906 1st half-year	3485	66·1	12·5	13·09	10	...	281
1906 2nd do.	3309	62·5	14 86	13·78	4	...	288
1907 1st half-year	3468	64·6	11·85	12·75	5	...	369
1907 2nd do.	3461	62·1	11·3	12·28	4	...	493
1908 1st half-year	3581	58·9	10·1	12·62	7	...	651
1908 2nd do.	3327	51·4	12·05	12·10	11	...	829
1909 1st half-year	3537	53·2	11·25	11·31	5	...	851
1909 2nd do.	3238	51·0	9·88	12·66	2	...	853
1910 1st half-year	3445	54·6	9·35	11·29	3	...	849
1910 2nd do.	3179	48·29	10·35	11·83	4	...	935
1911 1st half-year	3370	44·10	11·51	13·20	7	...	1044
1911 2nd do.	3002	41·20	12·79	13·05	3	...	986
1912 1st half-year	3122	43·17	8·36	13·74	2	...	1082
1912 2nd do.	3139	42·05	9·05	12·74	3	...	1132
1913 1st half-year	3054	39·42	10·08	12·34	1	...	1164

† June of first year to July of second.
‡ Including Returns of Basford, Bulwell, and North Wilford for April, May, and June, 1899.
§ First Twelve Month's Return from New Parish of Nottingham.
* Nos. of births as furnished on Vaccination Returns.

The number of so-called conscientious objectors to vaccination, the majority of whom are altogether incapable of explaining the ground of their objection, is steadily rising. There were 1,164 such objectors in the first half of 1913, out of a possible 3,054—the largest proportion yet recorded in any similar period—and, with the encouragement now offered to parents to make objection, there seems a strong probability that their numbers will continue to grow.

The lack of statutory provision for re-vaccination, except in times of epidemic prevalence of small-pox, is another serious defect in our scheme of public vaccination, which, even if primary vaccination were effectively carried out, would leave our adult population practically unprotected against infection, except in the relatively few cases where the second operation is submitted to spontaneously. Moreover, the mild and abortive form of small-pox which frequently occurs among partially protected people is exceedingly liable to escape detection as such, and thus to lead to the propagation of the disease.

The decline of public infantile vaccination is not confined to Nottingham, it is general throughout the country. The proportion of infantile vaccinations to total annual births is about 50 per cent. in all England and Wales, and 40 per cent. in London. It is still as high as 70 per cent. in some parts of Wales (Cardigan and Anglesey), but is only about 9 per cent. in Leicester.

Measles.—In my annual report for 1912, it was stated that an epidemic outbreak of this disease extending with severity from the middle of 1911 to the middle of 1912 had entirely spent itself by the close of the latter year. The truth of this latter statement was emphasized by the fact that no cases of it were recorded and no deaths from it registered during the first quarter of 1913.

The accompanying table gives the deaths during the year in the districts to which they belonged. There were only 20 altogether, eight in the 2nd, one in the 3rd, and eleven in the 4th quarter. Eighteen of the 20 total deaths were under the 5th year, and of these 13 were of males and 5 of females. The two remaining deaths were of females between the 5th and the 10th year. A preponderant male mortality among cases under the 5th year is of normal occurrence, and a preponderant female mortality among those at higher ages, but it must be remembered that more than 90 per cent. of all the deaths from measles are under 5 years.

Deaths from Measles, during each of the Four Quarters of 1913, in the Registration Sub-Districts of the City.

District	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Totals.
Bulwell	..	1	..	..	1
N.W...	..	..	..	5	5
N.E.	..	..	..	3	3
S.W.	..	1	1	3	5
S.E.	..	6	..	..	6
Totals	..	8	1	11	20

The death-rate per 1,000 from this cause in Nottingham during 1913 was 0·07 (7 per 100,000), and was the lowest since 1906. An annual record of this character occurs, when the brief interval or remission between two successive epidemics happens to comprise the whole or a large part of a calendar year.

In England and Wales as a whole during 1913 the measles death-rate was equal to 0·28, in London and in the 96 great towns alike to 0·34, and in the 145 smaller towns to 0·30 per 1,000 of population. The average

School Closure on account of Infectious Disease, 1913.

School.	Dept.	Reasons for Closure.	Period.		Actual School Days lost.
Council Schools.			From	To	
Collygate Road ..	Infants	Measles.	29th May, 1913.	16th June 1913.	12
Forster Street ..	,,	,,	15th Dec., 1913.	5th Jan., 1914.	4½
London Road ..	,,	,,	15th Dec., 1913.	5th Jan., 1914.	4½
Queen's Walk ..	Girls'	Diphtheria.	22nd July, 1913.	25th Aug., 1913.	3½
,, ,, ..	Infants	,,	17th Oct., 1913.	27th Oct., 1913.	6
Trust Schools.					
Mapperley.. ..	Mixed & Infants	Scarlet Fever	15th Dec., 1913.	5th Jan., 1914.	4½
St. Catherine's R.C.	,,	Mumps.	18th Dec., 1913.	5th Jan., 1914.	1
St. George's ..	Infants	Measles.	24th Nov., 1913.	8th Dec., 1913.	10
St. Saviour's ..	,,	,,	6th June, 1913.	23rd June, 1913.	11

Analysis.

	SCHOOL DAYS.	
	Council Schools.	Trust Schools.
Closure on account of Measles	21	21
,, ,, ,, Diphtheria	9½	..
,, ,, ,, Scarlet Fever	..	4½
,, ,, ,, Mumps	..	1
	30½	26½
GRAND TOTAL ..	57	

annual rate from this cause during the preceding 5 years in Nottingham was 0·37 per 1,000, and in England and Wales 0·26 per 1,000. If all these decimal figures be taken as whole numbers, they will represent the proportional mortality per 100,000 of population.

Although the death-rates of measles and whooping-cough (which is generally considered in connection with it) are slowly declining in this country, the decline is exceedingly slow, slower indeed than in the case of any other member of the group of chief epidemic diseases, excepting only diphtheria, and is less due to any special public action for combating them than to a general improvement in the conditions of life among the poor, and a more intelligent appreciation of the causes of their epidemicity and mortality.

School closure and the exclusion of children from school are still practised as preventives, but in dense urban districts, at any rate, they have long been known to possess but very little, if any, real utility in this direction, especially when adopted, as they usually are, after the disease has obtained a firm hold upon the susceptible sections of the population.

Particulars of school closure during 1913 on account of various infectious diseases will be found in the accompanying table.

Scarlet Fever.—The reported cases of this disease which came to my knowledge during 1913 numbered 986, against 1,120 in 1912, and an annual average of 827 during the 10 years ending with the latter year. The largest annual total during these 10 years was 1,420 in 1903, and the smallest, 416 in 1907. The number for 1913 is 12 per cent. less than that for 1912, but 19 per cent. more than the 10 years' average. The attack-rate per 1,000 of population was equal to 3·27 in 1913, as compared with 4·27 in 1912, and 1·88 in 1911.

The households invaded numbered 787. The number of males affected was 482 and of females 504. The total case-mortality was equal to 1·7 per cent., that of males to 1·24 per cent., and that of females to 2·18 per cent.

Notifications of Scarlet Fever, during each of the Four Quarters of 1913, in the Registration Sub-Districts of the City.

District.	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Totals.
Bulwell	72	60	47	210	389
N.W...	44	42	52	133	271
N.E.	43	22	37	59	161
S.W.	42	21	22	20	105
S.E.	16	14	16	14	60
Totals	217	159	174	436	986

The annual case-mortality for both sexes during the preceding five years had ranged from 0·96 per cent. in 1909 to 2·14 in 1912. The rate for 1909 was the lowest on record. The case-mortality among scarlet fever cases in the Metropolitan Asylums Board Hospitals of London during 1912 (which is the latest year for which the returns are available) was equal to 1·6 per cent. for both sexes, the rates for each sex being approximately 1·6 for males and 1·5 for females.

It is unusual for the female case-death-rate to exceed the male, as happened in Nottingham during 1913, for when considerable numbers of cases are dealt with it is almost always found that (in proportion to the numbers attacked) the disease is more fatal to males; but, owing to the fact that females, both at home and in hospital, are more closely associated with scarlet fever patients than males, a larger number of females than males are attacked, and consequently the female death-rate per 1,000 (or other proportional number) frequently exceeds the male.

An analysis of cases in respect of age and sex incidence and case-mortality, and the numbers of cases and of deaths and the ratios of deaths to cases for every year since the commencement of compulsory notification, are furnished in the tables on pp. 80 to 83 post.

Of the 986 cases reported during 1913, 529, or 53·6 per cent., were removed to the Isolation Hospital. The hospital cases are fully dealt with in the hospital section of the report, pp. 117 to 131 post. I shall here therefore only mention that the case-mortality among the hospital cases was equal to 2·4 per cent., as against 1·0 per cent. among those left at home.

It is now a very general practice to send the more severe cases into hospital. This will serve to explain the relatively high mortality among the cases nursed in this institution, as compared with those nursed at home.

The cases were more numerous in the first and last than the intermediate quarters. There were 84 during the first four-weekly period of the year, then a more or less regular decline till the sixth, for which the total number was only 39, and after this again a steady increase till the twelfth period (ending November 29th) in which the maximum number for such a period in the whole year was reached, viz., 173.

As already stated, the incidence upon the Bulwell and N.W. sub-districts was far heavier than elsewhere : 660 out of a total of 986 cases for the whole year occurred in these divisions. This excessive local incidence was apparent throughout the year, but was much more marked in the last than in any other quarter. Three hundred and forty cases, out of a total of 436 for the whole city, occurred in these two

divisions during the last quarter. The populations of the Bulwell and N.W. sub-districts together amount to considerably less than one-half of the whole city population. The incidence expressed as an attack-rate per 1,000 of population in the several sub-districts ranged from 1·5 in S.E. to 6·9 in Bulwell.

The general death-rate per 1,000 of population from scarlet fever in Nottingham during 1913, was 0·06 (6 per 100,000). The rate for 1912 was 0·09 (9 per 100,000), and the average rate for the five years ending with 1912 was 0·05 (5 per 100,000).

In England and Wales as a whole, during 1913, the death-rate from scarlet fever was 0·06 per 1,000, in London 0·04, in the 96 great towns 0·07, in the 145 smaller towns 0·05, and in England and Wales, less these towns, also 0·05.

As an illustration of the value for preventive purposes of the present system of notification, followed by systematic and detailed inquiry in the case of acute infectious diseases, I may give the following short history of an outbreak of some 34 cases of scarlet fever caused by infected milk. On the 3rd, 4th, and 5th of November, 1913, Inspector H. Ward discovered by the above-mentioned agency that about 20 cases of scarlet fever, with almost simultaneous onset, were obtaining their milk from a farm at Bilborough, and immediately reported the matter. The farm was visited, and several cases of scarlet fever were found among the inmates. The importation of the milk from this farm into the city was stopped (under the Infectious Diseases Prevention Act), and the further extension of the out-break thereby prevented. Thirty-two cases out of a total of 71 for the week ending November 8th were distinctly traceable to this infected milk.

Diphtheria.—The number of reputed cases of diphtheria which came to my knowledge during 1913 was 433. The corresponding total for 1912 was 386, and the average annual number during the five years ending with 1912 was 409. The attack-rate per 1,000 of population for the whole city was equal to 1·64 (164 per 100,000).

The individual houses invaded by the disease numbered 377. The male cases were 184 in number, the female 249, and the total deaths 39. The case death-rate of both sexes was 9·0 per cent., that of males 8·7 per cent., and that of females 9·2 per cent. The total case-mortality, and the case-mortality of each sex, were higher than in any year since 1905. The case-mortality of diphtheria in Nottingham follows the rule of large midland towns generally in being higher than that of London and of other southern districts, and lower than all classes of northern districts. Much of the apparent difference in fatality may be due to more careful diagnosis and more complete notification in one district than another ; much again may be due to treatment—there can be no doubt that if anti-diphtheritic serum were used at the outset in all cases the general mortality from this disease would be reduced to a negligible quantity.

The number of cases and deaths of either sex in age-periods, during 1913 and other recent years, and of total cases and deaths (and the ratio of the one to the other), are furnished in tables on pp. 80 to 83 post.

According to the report of the Registrar-General for 1912, it would appear that the higher mortality of females from diphtheria, as compared with males, at all ages taken together, is diminishing, but there can be no doubt that from three years of age to middle life

the mortality is still greater among females. In both sexes the mortality increases from birth till the 4th year, after which it steadily falls till the approach of old age.

The number of cases under five years of age was 72, and this number was equal to 16·6 per cent. of all: the deaths in the same period numbered 14, and were equal to 36·0 per cent. of all. Both these proportions were exceptionally low, the proportion of all deaths from diphtheria which occur before the end of the 5th year being normally about 53 per cent.—54 per cent. of all the deaths from diphtheria in Nottingham during 1912 occurred in this period.

The deaths under 10 years were 30 in number, and were equal to 77 per cent. of all. This proportion is at least 5 per cent. below the normal for large numbers, and 15 per cent. below the corresponding proportion in Nottingham during 1912.

The special feature of the diphtheria mortality of 1913 was its relatively heavy incidence upon the 10-15 years period. There were 7 deaths in this period, or 18 per cent. of all. There were but two deaths after the 15th year, and these constituted 5 per cent. of all. The cases after the 15th year, however, numbered 94, so that the case-mortality here was only fractionally more than 2 per cent. (2·13 per cent.).

It is, I think, now a matter of common knowledge that anti-diphtheritic serum, when administered at the onset of the disease, is a practically certain remedy. This has been demonstrated by the experience of all who have used it under these circumstances since its first introduction. The statistics of the great hospitals of the Metropolitan Asylums Board in and about London have shown it year after year in such a manner

as to reach the apprehension of the most simple. They have also shown that the mortality mounts with every day that elapses between the commencement of the disease and the use of the treatment. Notwithstanding all this, and in spite of the fact that the antitoxic serum is distributed gratuitously from the Health Department to medical men in charge of poor patients requiring it, a very large number of cases among the poor are still allowed to pursue their course without serum treatment.

Notifications of Diphtheria, during each of the Four Quarters of 1913, in the Registration Sub-Districts of the City.

Districts.	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Totals.
Bulwell	9	15	35	33	92
N.W.	16	13	19	44	92
N.E.	25	12	15	38	90
S.W.	8	7	28	37	80
S.E.	9	13	25	32	79
Totals	67	60	122	184	433

The distribution of diphtheria cases in the city during the year is shown by the accompanying spot-map and table. Taking neighbourhoods in the first place, as distinguished from sub-districts, the chief concentration of cases occurred in the Meadows, which were very seriously affected, but numerous cases were closely grouped in other parts of the city, notably at Old and New Radford, and over the area lying W. and S.W. of the Hunger Hill Gardens as far as the Mansfield Road, but also, though in a lesser degree, at Carrington, Sherwood, Basford, and Bulwell.

Most of the better-class residential neighbourhoods were either free or relatively free (the Park was


PLAN OF THE
City ~~BOROUGH~~ OF NOTTINGHAM
SHEWING SURFACE LEVELS BY
CONTOUR LINES.
1913: Diphtheria. Local incidence of cases shown by Black Spots.
Number of cases 433.
Bulwell Registration Sub-District
N.W. R.S.D.
N.E. R.S.D.
S.W. R.S.D.
S.E. R.S.D.

entirely so), and the central parts of the city from the Forest on the N. to the Midland Railway on the S., and the whole of Sneinton, had only a few scattered cases.

So far as the sub-districts were concerned, there was more inequality apparent in the local incidence of the disease at different periods of the year than in the year taken as a whole. In the total numbers of cases notified in the several sub-districts, the range was only from 79 to 92, whereas in the first, second, and third quarters, the totals varied from 8 to 25, from 7 to 15, and from 15 to 35, respectively.

The attack-rates in the several sub-districts for the entire year ranged from 1·3 per 1,000 in N.E., to slightly more than 2 per 1,000 in S.W. and S.E.

In view of the fact that this disease diminished almost continuously in Nottingham during 1912, and increased again almost continuously during 1913, it may be noted that, although the curve of its prevalence and fatality in this country as a whole (and elsewhere when observed on a large scale) rises in the winter and falls in the summer months, this rule is not necessarily observed in small areas, owing to the operation of accidental causes of various kinds.

Out of the 433 total cases of diphtheria and reputed diphtheria notified during the year, 237, or 55 per cent., were removed to the City Isolation Hospital. The history of these cases is dealt with in the Hospital Chapter of this report, but I may mention here that the case-mortality among them was 10·1 per cent., as compared with 7·7 per cent. for those nursed at home, and 9·0 per cent. for all cases.

The higher mortality among the hospital, as compared with the home cases, is due to the fact that a large proportion of those sent to hospital are of extreme severity. Many of these are sent in because they cannot be properly attended to at home. As evidence of this, I may mention that no less than 17 patients requiring tracheotomy, and upon whom the operation was performed by us, were admitted during the year.

These facts considered, the relatively small disparity between the hospital and home rates of mortality speaks well for the value of hospital treatment.

The 39 total deaths from diphtheria in Nottingham during 1913, were equivalent to a death-rate per 1,000 of population of 0·15 (15 per 100,000). This is the highest annual death-rate from diphtheria in Nottingham since 1907, but, owing to the higher rates which obtained in the earlier years of the decennium ending with 1912, the average annual rate for this period was 0·16 per 1,000.

In England and Wales as a whole during 1913 the death-rate per 1,000 from diphtheria was 0·12, in London 0·09, in the 96 great towns (including London) 0·13, and in the 145 smaller towns 0·11.

Whooping-Cough. — The deaths from whooping-cough during 1913 numbered 42, 26 in the first quarter, 8 in the second, 5 in the third, and 3 in the fourth. Although 36 out of the 42 total deaths occurred before the middle of July, there was only one four-weekly period during the year in which there was no fatality from this cause—that ending with September 6th. Cases were distributed in all parts of the city, but the two southern sub-districts suffered less than the three northern.

Of the 42 total deaths, 19, or 45 per cent., occurred in the first year, and 41, or 97·6 per cent., under 5 years of age. The average proportion at these ages is usually given as 40 per cent. and 96 per cent., respectively.

Deaths from Whooping-Cough, during each of the Four Quarters of 1913, in the Registration Sub-Districts of the City.

District.	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Totals.
Bulwell	6	2	2	..	10
N.W...	10	1	1	1	13
N.E.	7	2	..	1	10
S.W.	2	3	..	1	6
S.E.	1	..	2	..	3
Totals	26	8	5	3	42

This disease, when affecting large numbers, is more fatal to females than males, at all ages, and this is borne out by our own deaths under one and over five, and also by our total deaths of both sexes. Of the 19 deaths under one year, 7, or 37 per cent., were of males, and 12, or 63 per cent., of females; between 1 and 5 years there were 11 deaths of each sex; after the fifth year there was one death only, and that was of a female.

Dr. T. H. C. Stevenson, of the General Register Office, has recently called attention (in the report of the Registrar-General for 1912) to the following curious facts:—viz., that the proportion of infantile to total deaths from whooping-cough is larger in all parts of the country in rural districts than in small towns, and larger in these than in county boroughs, and, further, that in purely rural districts the rate of mortality from

whooping-cough is higher than in any other class of area under 3 months, but lower than any other between 6 and 12 months. The cause or causes of these interesting facts is not apparent.

The 42 total deaths from whooping-cough in Nottingham during 1913 represent a death-rate per 1,000 per annum of 0·15 (15 per 100,000). The corresponding death-rates of the preceding 5 years were, successively, 0·23, 0·22, 0·24, 0·15, and 0·27 per 1,000, and the average annual death-rate of these years was 0·22 per 1,000.

In England and Wales, during 1913, the mortality from whooping-cough was equal to a rate per 1,000 of 0·14, in London to one of 0·17, in the 96 great towns, including London, also to one of 0·17, and in the 146 smaller towns to one of 0·13. The mortality from whooping-cough in the country as a whole is steadily falling, probably in great measure as a result of improved conditions of life among the poor, especially the poor of urban areas.

The school notification of this disease, and of measles, is now sufficiently regular and reliable to enable one to form a fair idea of their prevalence and distribution. It would not, however, be safe to depend upon such a source of information to the extent of attempting by its aid to calculate the case-fatality of either disease. Its principal utility at present is in connection with school closure for these complaints—a measure of so-called precaution favoured by education committees, partly on economic grounds and partly as a public placebo, but possessing for the most part no real preventive efficiency, for the principal reason that it is usually adopted too late, i.e., after the disease or diseases have obtained a firm hold upon the susceptible sections of the community.

Enteric Fever.—The cases of enteric fever in Nottingham which came to my knowledge during 1913 numbered 36, and two of these were of doubtful diagnosis. This annual total is equal to only 44 per cent. of that for 1912 (81), which was itself the previous lowest on record. The numbers of cases annually reported during the 10 years 1903-1912 ranged from 296 in 1904 to 81 in 1912, and the annual average for these 10 years was 197, but for the immediately preceding decennium, 1893-1902, the range was from 613 in 1899 to 363 in 1894, and the annual average was no less than 487. The average annual number of deaths of the more recent decennium was 30 (15 per cent. of cases), and of the previous period 68 (14 per cent. of cases). These totals of cases and deaths in their numerical relations serve to correct one another, and to show that the cases and deaths were for the most part correctly certified, for the average case-mortality of good hospitals of this country for enteric fever in recent years has been about 15 per cent.

I have so frequently called attention in my annual reports during the past 25 years to the conditions under which endemic enteric fever and other diarrhœal diseases are propagated in districts like Nottingham, where all the factors for such propagation have existed in a high degree of development, that any repetition of my statements in the present report would appear redundant, except for the facts that such statements are likely to be forgotten unless repeated, and that the aforesaid factors, though dominated for the time being, are still potentially existent. The dry system of excrement disposal, exemplified by the pail-closet, necessarily entails the accumulation of fæcal matter in the immediate vicinity of human dwellings, and when such matter becomes infected with the specific virus of enteric fever, epidemic diarrhœa and the like diseases, the growth and spread of infection

of this character, by the agency of flies and dust, by spilth, soakage, and traffic, almost inevitably follows.

It is possible, as evidenced by the recent experience of Nottingham and many other large towns and urban districts, to reduce the risk of infection to a minimum —under favourable meteorological conditions, such as relatively cool and moist weather, by improved methods of scavenging, by the use of steel instead of wooden pails, by the paving of courts, alleys, and yards, and by the general inculcation of the necessity for cleanliness upon all parties concerned in the use and management of the closets. But the risk of trouble is always there : given the introduction of infection on a large scale under weather conditions favourable to its development and spread, there is always existent a liability to explosive outbreaks.

I do not suggest that the dry closet is more than one among many agencies by which the infection of enteric fever and other like disorders may be spread in dense urban communities. Shell-fish, milk, water, and other vehicles have been in the past, and will be doubtless again in the future, the means on innumerable occasions of conveying poison of this character to the human bowel ; my sole contention with regard to the dry-closet is that it plays the part above described in propagating disease, that it is a filthy anachronism, and that it can readily be got rid of.

The scheme under which the conversion of the dry system to one of water carriage has been inaugurated in Nottingham, is one which divides the expense between the property owner and the ratepayer in apparently just proportions, and when the owners of property come to realize the superior attraction which houses with W.C.'s will possess in the estimate of decent tenants

over those with pail-closets, I think the voluntary conversion of the latter, with the aid of the Corporation subsidy (of £2 10s. per pail-closet converted), will proceed with an ever-gathering momentum.

On pp. 65 and 66 of this report will be found the table I have now furnished annually for a long period of years, setting forth the annual incidence of enteric fever upon houses in Nottingham furnished, respectively, with various types of closet. It is a remarkable fact that although on some occasions recently the numbers of cases dealt with have been comparatively small, and therefore subject to accidental variations, there has been no single year since 1887 in which the incidence has not been heavier upon houses with pail-closets than upon those with W.C.'s, and in 1913, when the total number of enteric fever cases was only 34 or 36, the incidence of such cases upon pail-closet houses was more than four times heavier than that upon W.C. houses.

It is sometimes said that, because the Local Authority have sanctioned pail-closets in the past, therefore they should pay the cost of substituting other sanitary conveniences when the pail-closets have had their day. The same argument might as fitly be used in respect of any insanitary or other anachronism which has become obviously obsolete in the light of increasing knowledge, or by change of taste and fashion; and I would also remind those who use such an argument that most of the pail-closets against which special objection is urged have been in use for more than forty years—which is a fair life at least for a sanitary convenience—and that during this time the Local Authority have provided the pails and done the scavenging free of charge—except to the rates—and that in most of our great cities W.C.'s are the sole form

of sanitary convenience in use, and that the entire cost of providing and maintaining these has devolved and continues to devolve upon the owners.

The attack-rate per 1,000 of population in Nottingham, during 1913, was equal to only 0·14 (14 per 100,000). This is by far the lowest attack-rate on record. The previous lowest rates of this kind were 0·31 in 1912, 0·39 in 1910, and 0·59 in 1909, and the highest was 2·50 in 1899.

The individual houses invaded by the disease numbered 33.

The total deaths from enteric fever registered during the year numbered 8, and these were equal to 23·5 per cent. of all the cases, or one death in 4·25. This is the highest case-mortality recorded in Nottingham since 1884. During the preceding 5 years, consecutively, the case death-rates were equal to the following percentages:—12·2, 12·0, 12·7, 13·5, and 17·3. The increase in case-fatality here apparent has been almost general throughout the country. According to the Registrar-General's report for 1912 (the latest published) the case-mortality of England and Wales was equal to 19·4 per cent. in that year, as compared with 17·6 per cent. in 1911.

The case-mortality of males in Nottingham during 1913 was equal to 25 per cent., or 1 death in 4 cases, and that of females to 23·5 per cent., or 1 death in 4·25 cases.

The records of the Metropolitan Asylums Board show a continuous decline in the case-mortalities of their large and numerous hospitals in successive quinquennia from 1890 to 1909. The total admissions

during each of these periods varied irregularly from 2,665 to 5,994, but the case-mortality fell continuously —so far as the quinquennia were concerned—from 17·0 per cent. to 14·5 per cent.

The mortality of the male sex from enteric fever in this country is now much higher than the female, although the proportional excess varies considerably from year to year (e.g., it was equal to 44 per cent. in 1912, and 66 per cent. in 1908), but the Registrar-General tells us that before the year 1881 "the mortality of both sexes was about equal."

Although the total number of cases was only 34 (or 36), their distribution was remarkably general. Indeed, the accompanying spot-map shows that almost all the poorest districts of the City were more or less affected, including the Meadows, Poplar, Sneinton, New Lenton, Dunkirk (a single case), the parts about Robin Hood Chase, Old and New Radford, and Bulwell proper; but the Park, the central districts of the City, Carrington, Sherwood, and Mapperley and Old Basford were entirely free.

It is almost needless to say that no special infecting agencies, like contaminated milk, water, and shell-fish, or carrier cases, were discovered during the year. Indeed, it is somewhat difficult to explain such typically sporadic infection occurring for the most part in single cases at a distance from others, and having no apparent connection with them. As I have already stated, about 77 per cent. of the cases occurred in houses with pail-closets, although such houses now constitute only 50 per cent. of all, and it is at least conceivable, though impossible to prove, that the specific virus was disseminated by the agency of the closet pails, for the complete disinfection of the latter is a matter of extreme difficulty.

The table, below, gives the weekly numbers of cases and deaths when any such occurred, and the autumnal increase of cases illustrates the liability to an increase of prevalence when the infection exists under favourable meteorological conditions, i.e., with a relatively high temperature and low rainfall. Nearly half of the total cases occurred during one quarter of the year at this period. The summer rainfall was remarkably small, and the average air temperature remained above 45° till the end of November.

Nottingham, 1913. Enteric Fever. Cases and Deaths in Weekly Periods.

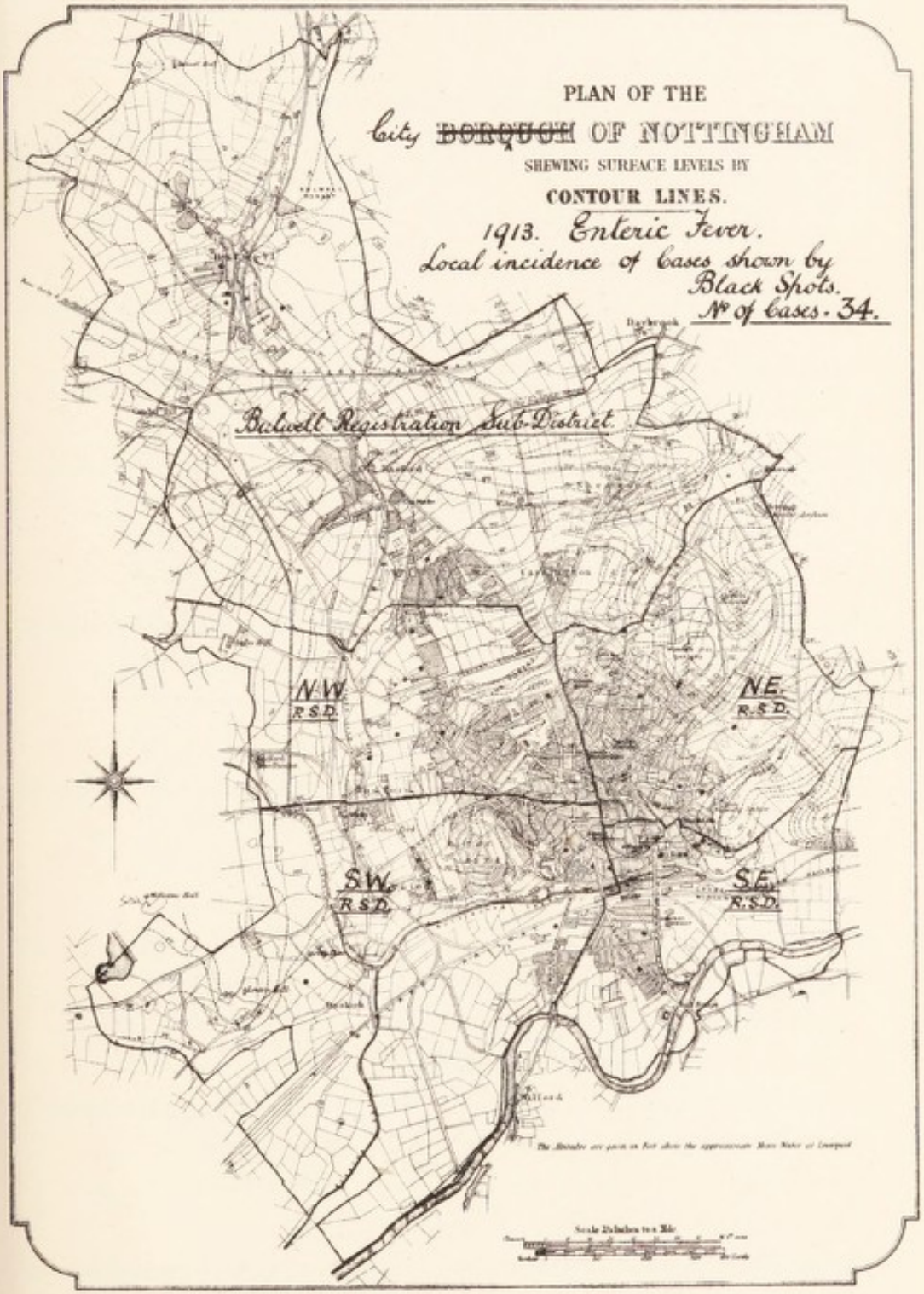
Week ending	January.				February.				March.					April.				May.					June.				
	4	11	18	25	1	8	15	22	1	8	15	22	29	5	12	19	26	3	10	17	24	31	7	14	21	28	
Cases	2	..	..	2	1	..	..	1	1	1	..	..	..	..	2	..	1	1	..	2	..	..	..	..	1	..	=15*
Deaths	..	..	1	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	1	1	..	..	..	..	..	=5*

Week ending	July.				August.					September.				October.				November.					December.				Jan.	
	5	12	19	26	2	9	16	23	30	6	13	20	27	4	11	18	25	1	8	15	22	29	6	13	20	27	3	
Cases	..	1	..	..	..	1	1	..	..	..	..	1	..	1	3	1	..	2	1	2	2	1	..	3	1	..	..	=21*
Deaths	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	..	..	..	=3*

* Figures made up from weekly returns, without correction.

I give, once more, the usual tables recording the behaviour of this disease in Nottingham City in former years, chiefly for their historic interest, and to illustrate what I have already written respecting the local incidence of the disease in the past.

The death-rate from enteric fever per 1,000 of population in Nottingham during 1913 was 0·03 (3 per 100,000), as compared with 0·04 in England and Wales as a whole, 0·02 in London, 0·04 in the 96 great towns, 0·05 in the 145 smaller towns, and 0·04 in England and Wales less the 241 towns. The rate for Nottingham during 1913 was not only the lowest on record, but was the first annual death-rate from enteric fever to fall below the corresponding rate for England and Wales as a whole.


PLAN OF THE
City ~~BOROUGH~~ OF NOTTINGHAM
SHEWING SURFACE LEVELS BY
CONTOUR LINES.
1913. Enteric Fever.
Local incidence of cases shown by
Black Spots.
№ of cases. 34.
Basford Registration Sub-District
N.W. R.S.D.
N.E. R.S.D.
S.W. R.S.D.
S.E. R.S.D.

Incidence of Enteric Fever Cases upon Houses with Pail-closets, Midden-privies, and W.C.'s, from 1887 to 1913, and upon Waste-water-closets during 1905–13.

1887 to 1898 (Average).

Houses with	pail-closets	...	1	case of enteric fever in	120	houses.
,,	midden-privies	...	1	,, ,, ,,	37	,,
,,	water-closets	...	1	,, ,, ,,	558	,,

1899.

Houses with	pail-closets	... ...	1	case in	70	houses.
,,	midden-privies	... ...	1	,,	18	,,
,,	water-closets	... ...	1	,,	296	,,

1900.

Houses with	pail-closets	... ...	1	case in	92	houses.
,,	midden-privies	... ...	1	,,	20	,,
,,	water-closets	... ...	1	,,	407	,,

1901.

Houses with	pail-closets	... ...	1	case in	84	houses.
,,	midden-privies	... ...	1	,,	12	,,
,,	water-closets	... ...	1	,,	255	,,

1902.

Houses with	pail-closets	... ...	1	case in	129	houses.
,,	midden-privies	... ...	1	,,	21	,,
,,	water-closets	... ...	1	,,	294	,,

1903.

Houses with	pail-closets	... ...	1	case in	267	houses.
,,	midden-privies	... ...	1	,,	50	,,
,,	water-closets	... ...	1	,,	504	,,

1904.

Houses with	pail-closets	... ...	1	case in	166	houses.
,,	midden-privies	... ...	1	,,	50	,,
,,	water-closets	... ...	1	,,	407	,,

1905.

37,048	houses with	pail-closets	204	cases ...	1	case in	181	houses.
400	,,	midden-privies	4	,, ...	1	,,	100	,,
12,000	,,	water-closets	21	,, ...	1	,,	571	,,
6,785	,,	waste-w.c.'s	26	,, ...	1	,,	261	,,

Enteric Fever Cases and Types of Closet—*continued.*

1906.

36,886	houses with	pail-closets	...	231	cases ...	1 case in	160	houses.
300	,,	midden-privies		3	,, ...	1 ,,	100	,,(cir.)
14,000	,,	water-closets		21	,, ...	1 ,,	667	,,
6,785	,,	waste-w.c.'s		30	,, ...	1 ,,	226	,,

1907.

36,697	houses with	pail-closets	...	177	cases ...	1 case in	207	houses.
200	,,	midden-privies		11	,, ...	1 ,,	18	,,(cir.)
18,395	,,	water-closets		25	,, ...	1 ,,	736	,,
6,785	,,	waste-w.c.'s		18	,, ...	1 ,,	377	,,

1908.

36,531	houses with	pail-closets	...	197	cases ...	1 case in	185	houses.
100	,,	midden-privies		3	,, ...	1 ,,	33	,,(cir.)
19,944	,,	water-closets		25	,, ...	1 ,,	798	,,
6,785	,,	waste-w.c.'s		12	,, ...	1 ,,	565	,,

1909.

36,318	houses with	pail-closets	...	123	cases ...	1 case in	295	houses.
21,397	,,	water-closets		18	,, ...	1 ,,	1189	,,
6,785	,,	waste-w.c.'s		14	,, ...	1 ,,	485	,,

1910.

36,015	houses with	pail-closets	...	76	cases ...	1 case in	474	houses.
23,058	,,	water-closets		17	cases ...	1 ,,	1356	,,
6,785	,,	waste-w.c.'s		9	,, ...	1 ,,	754	,,

1911.

35,606	houses with	pail-closets	...	145	cases ...	1 case in	246	houses.
24,420	,,	water-closets		39	,, ...	1 ,,	626	,,
6,785	,,	waste-w.c.'s		20	,, ...	1 ,,	339	,,

1912.

34,973	houses with	pail-closets	...	36	cases ...	1 case in	972	houses.
25,739	,,	water-closets		26	,, ...	1 ,,	990	,,
6,760	,,	waste-w.c.'s		19	,, ...	1 ,,	356	,,

1913.

34,084	houses with	pail-closets	...	26	cases...	1 case in	1311	houses.
27,109	,,	water-closets		5	,, ...	1 ,,	5422	,,
6,730	,,	waste-w c.'s		3	,, ...	1 ,,	2243	,,

NOTTINGHAM.

Enteric Fever. Cases and Deaths (distinguishing Males and Females) in Age-Periods.

1911.

		0-1 yrs.	1-5 yrs.	5-15 yrs.	15-25 yrs.	25-35 yrs.	35-45 yrs.	45-55 yrs.	55-65 yrs.	65-75 yrs.	Over 75.	Totals at all Ages.	
Cases	Male	..	7	21	27	31	17	5	1	1	..	110	207
	Female	..	3	26	28	25	8	3	1	1	2	97	
Deaths	Male	..	1	1	4	4	3	..	..	..	..	13	28
	Female	..	..	3	3	4	2	3	..	..	..	15	
No. of Cases to One Death in age-periods.												No. of Cases to one Death at all Ages.	
Male		..	7·0	21·0	6·7	7·7	5·6	..	..	..	..	8·4	7·4
Female		..	..	8·6	9·3	6·2	4·0	1·0	..	..	..	6·4	

1912.

		0-1 yrs.	1-5 yrs.	5-15 yrs.	15-25 yrs.	25-35 yrs.	35-45 yrs.	45-55 yrs.	55-65 yrs.	65-75 yrs.	Over 75.	Totals at all Ages.	
Cases	Male	..	3	6	11	14	6	2	1	..	..	43	81
	Female	..	1	8	12	8	6	3	..	..	..	38	
Deaths	Male	..	..	..	1	4	2	1	1	..	..	9	14
	Female	..	..	..	2	..	2	1	..	..	..	5	
No. of Cases to One Death in age-periods.												No. of Cases to one Death at all Ages.	
Male		..	..	..	11·0	3·5	3·0	2·0	1·0	..	..	4·8	5·8
Female		..	..	..	6·0	..	3·0	3·0	..	..	..	7·6	

1913.

		0-1 yrs.	1-5 yrs.	5-15 yrs.	15-25 yrs.	25-35 yrs.	35-45 yrs.	45-55 yrs.	55-65 yrs.	65-75 yrs.	Over 75.	Totals at all Ages.	
Cases	Male	..	..	5	4	6	2	2	1	..	..	20	34
	Female	..	1	4	4	2	3	..	..	..	..	14	
Deaths	Male	..	..	1	1	1	1	..	1	..	..	5	8
	Female	..	..	1	1	1	..	..	..	..	..	3	
No. of Cases to One Death in age-periods.												No. of Cases to one Death at all Ages.	
Male		..	..	5·0	4·0	6·0	2·0	..	1·0	..	..	4·0	4·25
Female		..	..	4·0	4·0	2·0	..	..	..	..	..	4·6	

ENTERIC FEVER.—Cases and Deaths, Male and Female, during each of the Four Quarters of the Year in Registration Sub-Districts.

		First Quarter.		Second Quarter.		Third Quarter.		Fourth Quarter.		Totals.				
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males	Females.	Both Sexes.		
Bulwell	Cases	...	...	...	1	1	...	3	...	4	1	5	Cases	Bulwell
	Deaths	...	...	...	...	...	...	1	...	1	...	1	Deaths	
N.W.	Cases	2	1	2	...	1	...	1	...	6	1	7	Cases	N.W.
	Deaths	...	...	1	...	...	...	1	...	2	...	2	Deaths	
N.E. ...	Cases	1	...	2	...	...	...	...	4	3	4	7	Cases	N.E.
	Deaths	...	...	1	...	...	...	...	...	1	...	1	Deaths	
S.W. ...	Cases	...	1	2	...	1	1	...	2	3	4	7	Cases	S.W.
	Deaths	...	1	...	...	...	...	...	...	...	1	1	Deaths	
S.E. ...	Cases	...	1	...	...	...	1	4	2	4	4	8	Cases	S.E.
	Deaths	...	1	...	1	...	...	1	...	1	2	3	Deaths	

Nottingham, 1897-1913.

GENERAL ENTERIC FEVER DATA.

Year.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
Population ..	232,935	236,139	239,384	237,770	240,438	243,191	245,993	248,811	251,677	254,567	257,492	260,449	263,441	266,466	260,447	262,563	264,735
Cases of Enteric Fever	428	423*	607*	505*	535*	375*	200*	296*	255	285	231	237	157	103	207	81	34
Attack or Case-rate	1·83	1·79	2·53	2·12	2·22	1·54	0·812	1·19	1·01	1·12	0·897	0·910	0·59	0·387	0·795	0·308	0·128
Deaths from Enteric Fever ..	45	53	114	75	79	50	36	57	24	40	37	29	19	13	28	14	8
Death-rate from Enteric Fever..	0·21	0·22	0·48	0·32	0·329	0·21	0·14	0·23	0·09	0·16	0·15	0·11	0·07	0·049	0·107	0·053	0·030
Mean air temperature ..	48·1	49·2	48·3	47·269	46·534	46·67	47·7	48·4	48·3	49·4	48·1	48·7	47·5	48·4	49·9	48·5	49·2
Rainfall in inches	23·726	19·750	22·635	26·823	21·401	21·524	32·368	19·733	20·010	23·938	25·651	22·703	26·053	26·545	19·788	31·140	22·458
Death-rates from Enteric Fever in great towns..	0·18	0·20	0·22	0·20	0·17	0·15	0·12	0·10	0·08	0·09	0·07	0·08	0·06	0·05	0·06	0·04	0·04

* Number obtained from Weekly Returns of Notifications without subsequent correction.

NOTTINGHAM, 1908-1913. ENTERIC FEVER. Onsets of Cases, with Mean Temperature of Air, and Rainfall, in Four-Weekly Periods. * Five-weekly period.

	Four-weekly periods ending	Jan. 25.	Feb. 22.	March 21.	April 18	May 16.	June 13.	July 11.	Aug. 8.	Sept. 5.	Oct. 3.	Oct. 31.	Nov. 28.	Jan. 2.*	Totals.
1908	Mean Temperature	34·6	41·6	38·5	43·2	48·1	57·5	58·5	60·8	55·8	57·4	52·6	45·4	38 8	48·7
	Rainfall in Inches	0·91	1·18	1·61	2·18	3·49	1·28	1·96	1·72	3·53	1·06	0 82	1·30	1·43	22·703
	Cases of Enteric Fever	14	13	16	8	10	22	14	21	20	24	31	20	16	229
	Four-weekly periods ending	Jan. 30.	Feb. 27.	March 27.	April 24.	May 22.	June 19.	July 17.	Aug. 14.	Sept. 11.	Oct. 9.	Nov. 6.	Dec. 4.	Jan. 1.	Totals.
1909	Mean Temperature	38·5	37·1	36·5	47·9	49·5	54·0	57·2	60·6	55·9	54·6	48·6	39 3	38·3	47·5
	Rainfall in Inches	0·98	0·76	2·43	1·74	0·46	1·41	3·56	2·46	3·09	2·46	2·25	1·78	2·84	26·053
	Cases of Enteric Fever	10	11	6	6	8	11	8	6	24	17	30	16	7	160
	Four-weekly periods ending	Jan. 29.	Feb. 26.	March 26.	April 23.	May 21.	June 18.	July 16.	Aug. 13.	Sept. 10.	Oct. 8.	Nov. 5.	Dec. 3.	Dec. 31.	Totals.
1910	Mean Temperature	37·7	40·3	42·0	44·6	48·9	57·9	58·0	59·5	58·1	54·0	48·0	36·6	43·7	48·4
	Rainfall in Inches	1·86	1·86	0·70	0·98	2·64	0·74	2·87	1·67	2·77	1·02	1·91	5·46	2·00	26·545
	Cases of Enteric Fever	13	7	5	10	3	5	5	10	12	12	7	4	10	103
	Four-weekly periods ending	Jan. 28.	Feb. 25.	March 25.	April 22.	May 20.	June 17.	July 15.	Aug. 12.	Sept. 9.	Oct. 7.	Nov. 4.	Dec. 2.	Dec. 30.	Totals.
1911	Mean Temperature	38 8	39·4	41·0	43 4	52·1	58·7	60·3	67·2	63·3	52·6	48 3	41 9	42·1	49·9
	Rainfall in Inches	0·91	1 17	1 47	0·46	1·43	1·18	1·78	0·70	1·41	1·57	1·79	2·25	3 22	19 788
	Cases of Enteric Fever	9	16	12	8	6	4	4	9	27	70	19	14	7	205
	Four-weekly periods ending	Jan. 27.	Feb. 24.	March 23.	April 20.	May 18.	June 15.	July 13.	Aug. 10.	Sept. 7.	Oct. 5.	Nov. 2.	Nov. 30.	Dec. 28.	Totals.
1912	Mean Temperature	38·5	37·9	44·2	46·8	51·9	54·3	60·1	59·3	54 6	50·5	45·9	42·8	43 4	48·5
	Rainfall in Inches	3·54	1·40	1·98	0 59	0·53	3·84	1·94	4·50	3·64	0 56	2·40	1·74	3·39	30·095
	Cases of Enteric Fever	6	11	4	6	6	4	3	5	9	7	7	6	4	78
	Four-weekly periods ending	Jan. 25.	Feb. 22.	March 22.	April 19.	May 17.	June 14.	July 12.	Aug. 9.	Sept. 6.	Oct. 4.	Nov. 1.	Nov. 29.	Jan. 3.*	Totals.
1913	Mean Temperature	39·2	39·4	41·6	42·9	50·1	56·7	58·2	58·5	59·5	57·3	49·9	45·3	40·4	49·2
	Rainfall in Inches	2·26	1·29	2·86	1·85	2·86	0·87	0·85	0·19	2·01	1·60	3 41	1·57	0·78	22·458
	Cases of Enteric Fever	3	3	1	5	..	1	1	1	2	4	5	7	2	35

Diarrhœa.—The difference between my total of deaths from diarrhœa and enteritis, and that furnished by the Registrar-General, as already stated, is due to the fact that the Registrar-General now includes in such category only deaths under 2 years, whereas my figures embrace diarrhœa deaths at all ages. The difference between the totals is numerically slight, because although many cases occur after the second year, the case mortality is exceedingly low.

The Registrar-General's total will be adopted whenever reference is made to other figures of similar character prepared on a uniform basis by that authority, but in my various tables prepared from death returns in the course of the year, and in other places when referring to the diarrhœa mortality of Nottingham from a purely local standpoint, I shall adhere to my own total.

The total of 220 deaths (152 from diarrhœa and 68 from enteritis), though large in comparison with the corresponding figures for 1912 and 1910, viz., 87 and 96 respectively, was practically identical with the annual average of the 10 years ending with 1912 (219·2), and equal to only one-half the total for 1911, which was a typical diarrhœa year with sustained high summer and autumn temperature and low rainfall.

Epidemic diarrhœa, as we know it in modern civilized countries with warm summers, is peculiarly a disease of dense urban districts (urban districts in England and Wales have a death-rate from this cause more than twice that of rural areas). It is to a large extent dependent upon the following factors for its propagation, viz., poverty or social degradation, overcrowding and dirt, hand-feeding, and (by way of spark to an explosive mixture) heat and drought. The effective cause is a microbe, and invisible, but the

subsidiary agents by which this is cultivated and conveyed to the stomach and bowels of its victims are gross and obvious. Towns with defective scavenging, especially those with dry or conservancy systems of excrement disposal, like our pail system, are the greatest sufferers. Flies are bred freely in the pail contents, and every ten days or so fresh crops of flies appear from eggs deposited in such breeding material during hot weather, the pail contents in the form of dust or spilth or soakage, as detailed under the heading of enteric fever, contaminate the dwelling and its whole contents and environment with fæcal material, and the careless and filthy habits of the people assist materially in this process of pollution.

In the third report of the Local Government Board on Infant Mortality, issued during the current year, Dr. Jane Lane Claypon, one of the Inspectors of the Board, makes the following observation :—

> "It is beyond the scope of this report to deal with the effects of the conservancy system of excrement disposal, of ash-places, and of insufficient and infrequent scavenging, upon the work of the health visitor. The prevalence of the conservancy method of excrement disposal must, however, be looked upon as an inherent difficulty in connection with infant welfare work in this county (Lancashire), which becomes accentuated when there is persistent warm weather."
>
> "Data collected by various health visitors, and shown to me on my visit, as to the method of feeding of the infants who succumbed to diarrhœa, show the already well-known fact that it is the bottle-fed infants which die in a proportion out of all comparison to those fed upon the breast."

It may be thought that I have laboured the case unduly against the pail system, especially in view of the fact that it is now undergoing conversion, and that with steel pails and better scavenging the mischief it is capable of doing has been reduced to a minimum. But it should be remembered that while the dry closet exists there must always be risk of such trouble as I have described, and that the owners of house property

and their tenants are liable to lose sight of this fact unless constantly reminded of it ; and, further, that if the general public forget that the whole pail system is a dangerous nuisance and a serious menace to the health of the city, the conversion scheme is likely to hang fire.

The deaths under 2 years from diarrhœa and enteritis were equal to a death-rate per 1,000 living of 0·76 (76 per 100,000), as compared with 0·29 in 1912. The same mortality, considered as the proportion per 1,000 of births during the year, was equal to 32·92 in Nottingham, 23·41 in England and Wales as a whole, 27·50 in London, 29·33 in the 96 great towns (including London), 24·73 in the 145 smaller towns, and 14·39 in England and Wales less the 241 towns.

It will be seen that, in accordance with what has been stated earlier in this section, the mortality is highest in the great towns (representing the more typical urban conditions of life), less in the smaller towns (which are less typically urban), and least of all in the rural parts of the country.

The total number of deaths from diarrhœa and enteritis amounted, as already stated, to 220, 118 of males and 102 of females. During the past 8 years there have been 1,702 deaths of both sexes from this cause in the City, 910 of males and 792 of females. The numbers of deaths of each sex during each of these years have been as follows :—

1913,	118	males	and	102	females
1912,	48	,,	,,	39	,,
1911,	229	,,	,,	206	,,
1910,	51	,,	,,	45	,,
1909,	79	,,	,,	84	,,
1908,	95	,,	,,	76	,,
1907,	84	,,	,,	71	,,
1906,	206	,,	,,	169	,,

The male mortality is the greater until the end of the 3rd year, but from this point until middle life (45th year), the female mortality exceeds the male. According to the late Dr. Ballard, however, the liability to attack is greater at all ages among males then females.

During 1913 in Nottingham, there were 96 deaths of males under 1 year, and 81 of females; between 1 and 5 years there were 16 deaths of males and 19 of females; after the 5th year there were 8 deaths only—6 of males distributed between the 35th and 75th years, and 2 of females, æt. between 35 and 45 years and 65 and 75 years, respectively. The 177 deaths under one year amounted to 80·5 per cent. of all. This proportion is in fairly close agreement with our past records in Nottingham, and it is interesting to note that nearly the same proportion of deaths under one occurred in years like 1911, 1912, and 1913, when the total numbers of deaths were as various as 435, 87, and 220, respectively.

The occurrence of so large a proportion of all the deaths from diarrhœa in the 1st year is unusual in this country; such a proportion very commonly includes also the deaths in the 2nd year. The deaths from diarrhœa and enteritis in the 1st year were distributed over it as follows: 10 in the first month, 35 between 1 and 3 months, 72 between 3 and 6 months, 36 between 6 and 9 months, and 24 between 9 and 12 months. The maximum quarterly mortality was that of the 2nd quarter; in 1912 it was that of the 1st.

Although the incidence of the mortality upon the constituent months of the first half-year of life varies considerably from year to year, the ratio of the deaths in the first six months to the total for the first year is

relatively uniform. The deaths during the first six months were equal to 66 per cent. of all in 1913, and in 1910, 1911, and 1912, the corresponding proportions were, respectively, 70 per cent., 66 per cent., and 67 per cent.

The proportion of all the deaths under one from diarrhœa and enteritis which occurred before the end of the 9th month, has been even more uniform than this during the past 3 years, the range being only from 85 per cent. in 1912 to 86 per cent. in 1911 and 1913.

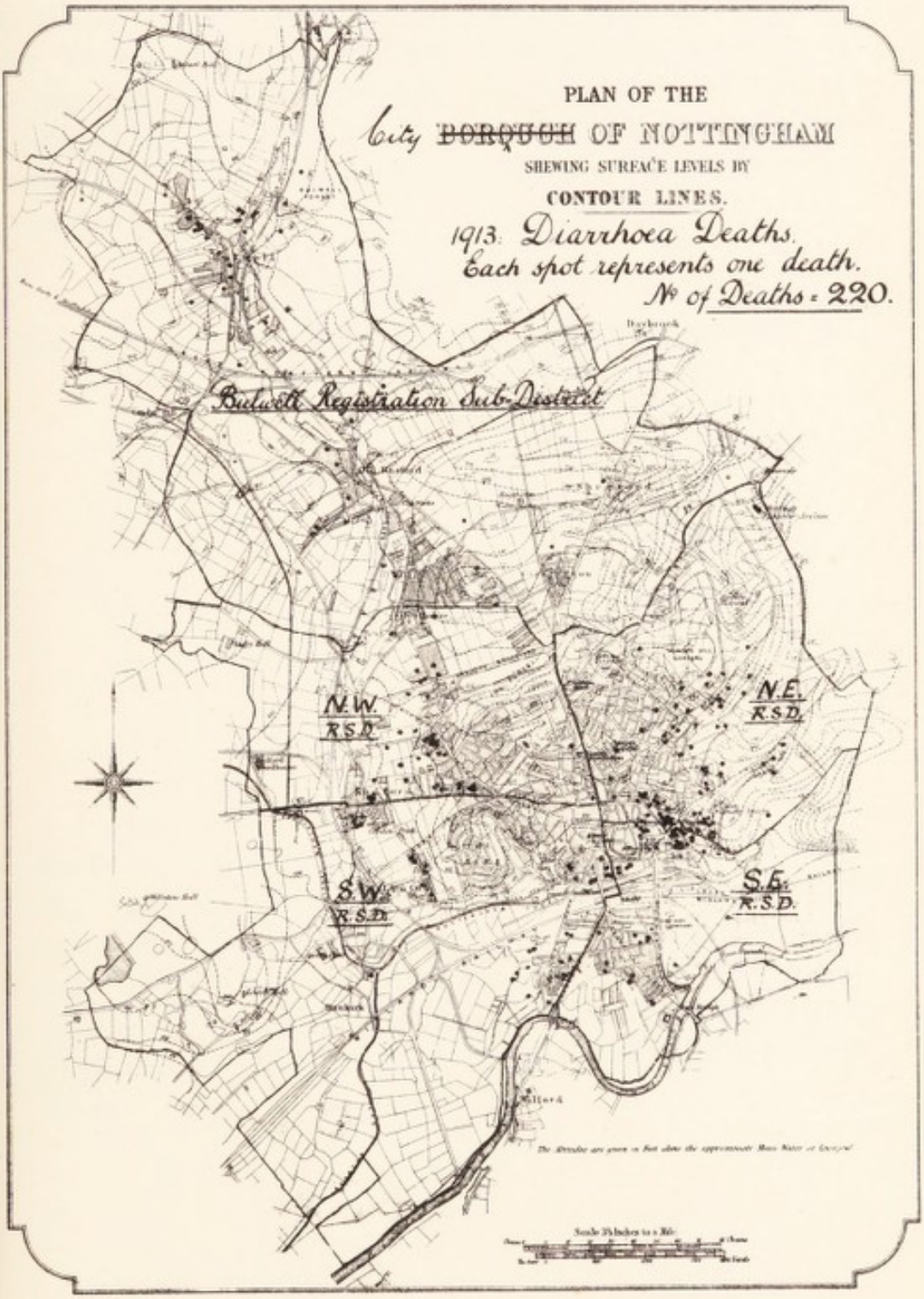
The high mortality among the infants of small slum tenements would be greatly reduced, even in hot and dry seasons and with all the insanitary agencies to which I have referred in full operation, if the mothers generally could be induced to feed their infants at the breast during the ordinary period of human lactation (9 months). This is shown by the fact that hand-fed children constitute a large majority of the victims of this complaint. One of the principal functions of our Mothers' and Babies' Welcomes is to induce mothers to suckle their babies, and the success of our Welcome officers in this direction, is evidenced by the relatively low mortality from epidemic diarrhœa among the infant population in the immediate vicinity of these establishments (see diarrhœa spot-map).

I am constrained in this connection to refer once more to the case of the illegitimate children, on account of the striking example it affords of the evil effects of hand-feeding, coupled with general maternal neglect. A large majority of these children are the offspring of single women who support themselves by work done away from home, and who therefore almost of necessity wean their children at the outset, and leave them thereafter, during the hours of work at any rate, to the care of others.

The mortality among illegitimate infants under one, during 1913, was equal to 25·1 per cent. (or 251 per 1,000) of such children born during the year. The corresponding rate among all legitimate was 12·2 per cent., or 122 per 1,000 annual births. The illegitimate infants, in other words, died at the rate of 1 in 3·98, and the legitimate at the rate of 1 in 8·2 during the year.

The mortality of illegitimate infants from diarrhœa is invariably high, and when this disease is specially prevalent, the illegitimate infant death-rate is proportionately increased. During 1911, the summer and autumn of which were exceptionally hot and dry, the illegitimate infants died at the rate of 1 in 3·47 (i.e., less than three-and-a-half).

The distribution of the disease in the City during 1913, which is shown by the accompanying spot-map, was roughly as follows:—There was a well-marked concentration of cases over the specially poor and congested, and for the most part low-lying neighbourhoods situated between the St. Catherine's Burial Ground and adjacent lower end of St. Ann's Well Road on the N.W., and the Sneinton and St. Philip's Churches on the S.E., and in no other parts of the city during the year was the grouping of cases so close, or the numbers on a given area so great, as here. In the following districts, however, there were considerable numbers of cases scattered over wide spaces, viz. (*a*) the Meadows and the Leen Side and the Marsh districts, (*b*) the poorer parts of New Lenton, (*c*) the whole of New and Old Radford, (*d*) the Carlton and St. Ann's Well Road districts, (*e*) the greater part of Old Basford, and (*f*) the whole of Bulwell.


PLAN OF THE
City ~~BOROUGH~~ OF NOTTINGHAM
SHEWING SURFACE LEVELS BY
CONTOUR LINES.
1913. Diarrhoea Deaths.
Each spot represents one death.
№ of Deaths = 220.
Bulwell Registration Sub-District
N.W. R.S.D.
N.E. R.S.D.
S.W. R.S.D.
S.E. R.S.D.

The table, below, shows the weekly numbers of deaths (when deaths occurred) in each of the sub-districts during each week of the summer and autumn of 1913. From this table it will be seen that half of the total deaths occurred during the month of September, in which month the weekly numbers of deaths averaged about 20. On either side of this period the weekly numbers diminished with fairly even gradation.

NOTTINGHAM, 1913.

Weekly Deaths from Diarrhœa (during Diarrhœa season) in Registration Sub-Districts.

	Week ending																									
	July.				August.					Sept.				October.				Nov.								
	5	12	19	26	2	9	16	23	30	6	13	20	27	4	11	18	25	1	8	15						
Bulwell	..	..	..	..	..	..	2	..	1	2	2	2	2	3	3	1	1	1	3	1	—	24				
N.W.	..	..	..	..	..	1	2	1	3	6	3	5	3	3	2	2	1	2	..	..	—	34				
N.E.	..	2	..	1	..	1	3	3	3	10	6	7	6	5	2	5	3	1	..	..	—	58				
S.W.	..	..	..	1	..	..	1	1	..	1	6	3	3	3	2	1	1	1	..	1	—	25				
S.E.	..	..	..	1	1	..	1	5	2	3	5	1	5	1	3	..	..	2	1	2	—	33				
	..	2	..	3	1	2	9	10	9	22	22	18	19	15	12	9	6	7	4	4	—	174				

I give also at the end of this section the usual records of rainfall, and superficial (1 ft.) and deep (4 ft.) earth temperatures, with the deaths from diarrhœa in each week of the diarrhœa season of 1913 and other recent years. These records for 1913 reveal a remarkably low rainfall and a high earth temperature during the whole period of special prevalence of the disease.

RAINFALL, TEMPERATURE, and DIARRHŒA DEATHS, (DURING DIARRHŒA SEASON).

1908.

	WEEK ENDING																	
	July 4	July 11	July 18	July 25	Aug. 1	Aug. 8	Aug. 15	Aug. 22	Aug. 29	Sept. 5	Sept. 12	Sept. 19	Sept. 26	Oct. 3	Oct. 10	Oct. 17	Oct. 24	Oct. 31	Nov. 7
Rainfall ..	0·17	1·27	1·66	0·00	0·05	0·01	0·22	0·85	1·44	1·02	0·15	0·58	0 31	0·02	0·02	0·07	0·48	0·25	0·00
Earth Temperature 1 ft. below surface ..	62·3	60·0	59·9	62·3	63·4	61·9	59·0	58·0	57·1	53·1	53·2	52·9	56·3	58·5	56·8	54·7	52·1	48·9	47·0
Earth Temperature 4 ft. below surface ..	56·4	57·4	53·0	57·9	59·6	60·3	60·0	58·6	58·1	57·1	55·8	54·6	55·4	56·0	57·1	56·2	55·7	53·2	52·2
Deaths from Diarrhœa	2	4	3	2	3	8	12	19	13	9	8	4	8	8	9	9	6	4	4

1909.

	WEEK ENDING																	
	July 3	July 10	July 17	July 24	July 31	Aug. 7	Aug. 14	Aug. 21	Aug. 28	Sept. 4	Sept. 11	Sept. 18	Sept. 25	Oct. 2	Oct. 9	Oct. 16	Oct. 23	Oct. 30	Nov. 6
Rainfall ..	0·15	1·04	0·77	0·23	1·80	0·43	0·00	1·80	0·22	0·48	0·59	0·39	0·82	0·64	0·61	0·92	0·85	0·40	0·08
Earth Temperature 1 ft. below surface ..	56·4	58·7	58·5	60·0	57·5	59·5	63·9	62·6	58·0	55·2	54·5	54·7	55·3	54·6	53·7	52·9	52·7	45·7	45·2
Earth Temperature 4 ft. below surface ..	53·6	54·7	55·4	56·7	56·8	56·7	58·8	60·2	59·3	58·0	56·8	55·9	55·7	55·6	55·2	54·5	54·1	52·5	48·9
Deaths from Diarrhœa	..	..	..	1	1	7	9	19	28	23	19	10	6	4	5	7	..	3	..

1910.

	WEEK ENDING																	
	July 2	July 9	July 16	July 23	July 30	Aug. 6	Aug. 13	Aug. 20	Aug. 27	Sept. 3	Sept. 10	Sept. 17	Sept. 24	Oct. 1	Oct. 8	Oct. 15	Oct. 22	Oct. 29	Nov. 5
Rainfall ..	0·98	0·98	0·00	0·46	0·57	0·20	0·45	0·79	1·54	0·40	0·03	0·70	0·03	0·24	0·06	0·64	0·24	0·20	0·82
Earth Temperature 1 ft. below surface ..	57·7	57·4	59·6	59·5	59·0	61·3	59·9	61·5	59 1	57·9	56·2	55·5	52·3	55·4	55·0	51·8	49·8	49·3	43·4
Earth Temperature 4 ft. below surface ..	56·8	56·2	56·4	57·2	57·2	58·1	58·4	59·0	58·9	58·2	57·6	57·1	55·9	55·2	55·7	55·0	53·5	52·4	51·1
Deaths from Diarrhœa	..	3	1	1	3	..	2	4	4	2	3	7	4	4	5	5	6	6	4

RAINFALL, TEMPERATURE, and DIARRHŒA DEATHS, (DURING DIARRHŒA SEASON).

1911.

	WEEK ENDING																		
	July 1	July 8	July 15	July 22	July 29	Aug. 5	Aug. 12	Aug. 19	Aug. 26	Sept. 2	Sept. 9	Sept. 16	Sept. 23	Sept. 30	Oct. 7	Oct. 14	Oct. 21	Oct. 28	Nov. 4
Rainfall ..	0·41	0·00	0·00	0·05	0·04	0·29	0·32	0·01	0·84	0·44	0·12	0·46	0·42	0·31	0·38	0·00	0·39	0·90	0·50
Earth Temperature 1 ft. below surface ..	57·5	63·3	66·7	66·0	68·8	68·7	67·9	66·8	63·9	61·8	61·6	59·6	54·2	54·6	49·7	49·4	51·6	47·8	44·7
Earth Temperature 4 ft. below surface ..	56·1	56·5	58·7	59·6	60·5	61·8	62·1	62·8	62·9	62·0	61·4	61·2	59·6	57·9	56·1	54·6	53·9	53·4	51·0
Deaths from Diarrhœa	2	..	2	3	8	15	30	46	52	63	54	38	30	18	14	8	4	4	2

1912.

	WEEK ENDING																		
	July 6	July 13	July 20	July 27	Aug. 3	Aug. 10	Aug. 17	Aug. 24	Aug. 31	Sept. 7	Sept. 14	Sept. 21	Sept. 28	Oct. 5	Oct. 12	Oct. 19	Oct. 26	Nov. 2	Nov. 9
Rainfall ..	0·48	0·08	0·46	1·61	1·13	1·30	0·44	1·25	1·70	0·25	0·10	0·00	0·03	0·43	0·00	0·26	1·13	1·01	0·33
Earth Temperature 1 ft. below surface ..	58·6	62·6	63·8	61·1	59·1	58·1	56·1	57·4	57·1	55·3	53·0	54·5	51·3	48·4	46·0	47·9	43·9	46·3	44·3
Earth Temperature 4 ft. below surface ..	57·0	57·2	59·6	59·4	59·6	58·4	57·8	57·4	57·3	57·0	55·8	55·2	54·6	54·8	51·3	50·6	49·7	49·0	47·4
Deaths from Diarrhœa	1	3	2	3	1	4	1	3	5	5	2	..	2	2	2	2	5	2	1

1913.

	WEEK ENDING																		
	July 5	July 12	July 19	July 26	Aug. 2	Aug. 9	Aug. 16	Aug. 23	Aug. 30	Sept. 6	Sept. 13	Sept. 20	Sept. 27	Oct. 4	Oct. 11	Oct. 18	Oct. 25	Nov. 1	Nov. 8
Rainfall ..	0·13	0·48	0·10	0·09	0·00	0·00	0·17	0·83	0·59	0·42	0·12	0·83	0·40	0·25	2·79	0·08	0·13	0·41	0·25
Earth Temperature 1 ft. below surface ..	60·7	57·5	60·4	57·8	59·5	59·6	59·7	59·9	59·4	58·4	56·7	56·0	57·9	58·4	53·6	50·3	47·6	48·8	45·2
Earth Temperature 4 ft. below surface ..	56·7	56·5	56·9	57·2	57·2	57·9	57·3	58·2	58·2	58·4	57·7	57·1	57·1	57·5	56·8	55·1	53·5	51·6	50·8
Deaths from Diarrhœa	..	2	..	3	1	2	9	10	9	22	22	18	19	15	12	9	6	7	4

NOTIFIABLE INFECTIOUS DISEASES.

Notified Cases and Deaths in Age-periods, distinguishing Male and Female Cases.

			0-1 year.	1-5 years.	5-15 years.	15-25 years.	25-35 years.	35-45 years.	45-55 years.	55-65 years.	65-75 years.	Over 75 yrs.	Total.	
Scarlet Fever ..	*Notified Cases*	M.	7	66	143	18	4	1	..	..	..	..	239	489
		F.	3	54	159	18	13	3	..	..	..	..	250	
	Certified Deaths	M.	1	4	2	..	..	..	..	..	..	..	7	9
		F.	..	1	1	..	..	..	..	..	..	..	2	
Diphtheria ..	*Notified Cases*	M.	6	45	102	18	4	2	1	..	..	..	178	388
		F.	1	54	113	18	14	9	1	..	..	..	210	
	Certified Deaths	M.	4	10	4	..	..	..	..	..	..	..	18	31
		F.	2	7	3	..	..	1	..	..	..	..	13	
Enteric Fever ..	*Notified Cases*	M.	..	7	21	27	31	17	5	1	1	..	110	207
		F.	..	3	26	28	25	8	3	1	1	2	97	
	Certified Deaths	M.	..	1	1	4	4	3	..	..	..	..	13	28
		F.	..	..	3	3	4	2	3	..	..	..	15	
Erysipelas ..	*Notified Cases*	M.	2	2	2	11	9	15	12	21	9	3	86	207
		F.	3	2	3	16	14	25	27	17	7	7	121	
	Certified Deaths	M.	..	..	..	..	..	..	..	..	2	..	2	4
		F.	..	..	..	..	..	..	..	1	..	1	2	
Puerperal Sepsis	*Notified Cases*	F.	..	..	..	5	6	2	..	..	..	..	13	
	Certified Deaths	F.	..	..	..	4	5	..	..	..	..	..	9	

NOTIFIABLE INFECTIOUS DISEASES.

Notified Cases and Deaths in Age-periods, distinguishing Male and Female Cases.

			0-1 year.	1-5 years.	5-15 years.	15-25 years.	25-35 years.	35-45 years.	45-55 years.	55-65 years.	65-75 years.	Over 75 yrs.	Total.	
Scarlet Fever ..	*Notified Cases*	M.	2	137	291	31	11	2	..	..	..	..	474	1120
		F.	6	168	407	34	19	11	..	1	..	..	646	
	Certified Deaths	M.	..	9	..	1	1	..	..	..	..	..	11	23
		F.	..	6	5	1	..	..	..	..	..	..	12	
Diphtheria ..	*Notified Cases*	M.	2	47	100	12	5	4	..	..	..	..	170	386
		F.	2	54	113	23	12	5	4	2	1	..	216	
	Certified Deaths	M.	1	3	6	..	..	..	..	..	..	..	10	26
		F.	..	10	5	..	1	..	..	..	..	..	16	
Enteric Fever ..	*Notified Cases*	M.	..	3	6	11	14	6	2	1	..	..	43	81
		F.	..	1	8	12	8	6	3	..	..	..	38	
	Certified Deaths	M.	..	..	..	1	4	2	1	1	..	..	9	14
		F.	..	..	..	2	..	2	1	..	..	..	5	
Erysipelas ..	*Notified Cases*	M.	2	2	1	3	4	12	13	12	3	4	56	199
		F.	2	7	5	9	19	35	33	21	10	2	143	
	Certified Deaths	M.	..	..	..	..	1	1	..	1	..	1	4	6
		F.	1	..	..	..	..	1	..	..	..	..	2	
Puerperal Sepsis	*Notified Cases*	F.	..	..	..	3	5	2	..	..	..	..	10	
	Certified Deaths	F.	..	..	..	3	1	2	..	..	..	..	6	
Phthisis	*Notified Cases*	M.	2	10	72	74	106	91	53	32	8	1	449	900
		F.	3	4	69	135	104	71	46	13	6	..	451	
	Certified Deaths	M.	..	..	3	20	42	42	38	20	3	1	169	306
		F.	2	2	4	32	37	25	23	8	3	1	137	

Other Notifiable Diseases— { Ophthalmia Neonatorum, 113 cases, 66 M., 47 F., all under 1.
Small-pox, 4 cases, aet. and sex, respectively, M. 1, aet. 34; F. 3, aet. 23, 20, and $1\frac{4}{12}$.

NOTIFIABLE INFECTIOUS DISEASES.

Notified Cases and Deaths in Age-periods, distinguishing Male and Female Cases.

			0–1 year.	1–5 years.	5–15 years.	15–25 years.	25–35 years.	35–45 years.	45–55 years.	55–65 years.	65–75 years	Over 75 yrs.	Total.	
Scarlet Fever ..	*Notified Cases*	M.	3	88	321	43	14	10	2	..	1	..	482	986
		F.	3	92	349	35	17	4	3	1	..	..	504	
	Certified Deaths	M.	..	2	2	1	..	1	..	..	..	..	6	17
		F.	2	5	3	1	..	..	..	..	..	..	11	
Diphtheria ..	*Notified Cases*	M.	1	34	120	19	7	2	1	..	..	..	184	433
		F.	1	36	147	40	15	7	3	..	..	..	249	
	Certified Deaths	M.	..	6	9	..	1	..	..	..	..	..	16	39
		F.	..	8	14	..	..	..	1	..	..	..	23	
Enteric Fever ..	*Notified Cases*	M.	..	..	5	4	6	2	2	1	..	..	20	34
		F.	..	1	4	4	2	3	..	..	..	..	14	
	Certified Deaths	M.	..	..	1	1	1	1	..	1	..	..	5	8
		F.	..	..	1	1	1	..	..	..	..	..	3	
Erysipelas ..	*Notified Cases*	M.	2	..	6	6	11	13	15	14	3	2	72	190
		F.	..	2	7	12	13	20	29	23	10	2	118	
	Certified Deaths	M.	..	..	..	..	1	1	2	..	2	..	6	6
		F.	..	..	..	..	..	..	..	..	..	..	..	
Puerperal Sepsis	*Notified Cases*	F.	..	..	..	4	8	3	..	..	..	..	15	
	Certified Deaths	F.	..	..	..	3	6	2	..	..	..	..	11	
Pulmonary Phthisis ..	*Notified Cases*	M.	..	6	42	76	93	79	51	33	8	..	388	665
		F.	..	4	34	73	82	46	23	10	5	..	277	
	Certified Deaths	M.	1	2	2	26	40	34	40	21	5	2	173	300
		F.	1	5	4	24	33	29	17	10	4	..	127	
*Other Tuberculous Diseases	*Notified Cases*	M.	1	6	36	11	8	5	2	3	1	..	73	139
		F.	3	8	32	12	7	2	1	..	1	..	66	
	Certified Deaths	M.	4	24	10	1	3	1	2	3	1	..	49	79
		F.	7	12	4	4	..	1	1	..	1	..	30	

Other Notifiable Diseases—Ophthalmia Neonatorum, 113 cases, 68 M., 45 F., all under 1.

* Notification of "Other Tuberculous Diseases" from 1st February, 1913.

	Scarlet Fever. *			Enteric Fever †			Small-Pox. *			Diphtheria. ‡			Puerperal Sepsis. §			Erysipelas. §			Ophthalmia Neonatorum. §			Phthisis. §			Other Tuberculous Diseases. §			Epidemic Diseases.			
	Deaths.	Known cases.	Ratio of known cases to Deaths.	Deaths.	Known cases.	Ratio.	Deaths.	Known cases.	Ratio.	Deaths.	Known cases.	Ratio.	Deaths.	Known cases.	Ratio.	Deaths.	Known cases.	Ratio.	Deaths.	Known cases.	Ratio.	Deaths.	Known cases.	Ratio.	Deaths.	Known cases.	Ratio.	Measles.	Whooping-Cough.	Diarrhœa	TOTAL.
1881	353	..	..	61	..	..	4	..	..	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	34	88	202	324
1882	280	1029	3·7	71	68	1·0	51	446	8·7	21	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	133	73	225	431
1883	59	428	7·3	73	159	2·2	2	23	11·5	34	125	3·7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	14	76	168	258
1884	37	384	10·4	68	218	3·2	..	11	..	39	113	2·9	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	145	129	377	651
1885	31	390	12·6	44	326	7·4	2	10	5·0	28	85	3·0	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	112	116	163	391
1886	13	351	27·0	61	317	5·2	2	12	6·0	10	68	6·8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	175	90	328	593
1887	22	615	28·0	74	411	5·6	..	2	..	10	50	5·0	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	58	153	315	526
1888	25	643	25·7	89	426	4·8	12	59	4·9	34	152	4·5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	115	81	157	353
1889	32	1047	32·7	66	395	5·9	..	..	..	11	66	6 0	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	86	153	263	502
1890	33	984	29·8	58	348	6·0	..	..	..	16	64	4·0	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	52	47	185	284
1891	28	895	31·9	70	396	5·6	..	..	..	21	103	4·9	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	110	121	180	411
1892	43	1163	27·0	36	205	5·6	..	..	..	30	76	2·5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	118	117	158	393
1893	82	1511	18·4	68	490	7·2	5	53	10·6	15	81	5·4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	25	59	358	442
1894	51	1164	22·8	62	363	5·8	4	59	15·8	18	56	3·1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	134	118	134	386
1895	51	1250	24·5	55	461	8·3	..	3	..	11	47	4·2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	33	444	478
1896	27	731	27·1	75	478	6·4	..	..	..	12	60	5·0	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	203	91	175	469
1897	34	517	15·2	45	428	9·5	..	..	..	21	75	3·6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	49	117	530	696
1898	32	931	29·1	54	423	7·8	..	..	..	23	85	3·7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	104	59	385	548
1899	53	2500	47·2	114	613	5·4	..	..	..	30	142	4·7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	140	54	600	792
1900	55	1394	25·3	75	505	6·7	..	..	..	28	116	4·1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	45	103	387	535
1901	11	918	83·5	79	535	6·8	..	7	..	29	115	3·97	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	96	96	361	553
1902	23	966	42·0	50	375	7·5	..	..	..	31	209	6 74	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	37	194	235
1903	34	1420	41·8	36	200	5·6	2	152	76·0	60	423	7·05	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	98	92	166	356
1904	27	1189	44·0	58	296	5·1	10	308	30·8	71	546	7·7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	44	89	344	477
1905	19	681	35·8	24	255	10 6	1	19	19·0	49	537	10·9	12	12	1·0	11	110	10·0	..	..	..	..	..	..	..	..	..	232	61	202	495
1906	17	611	35·9	40	285	7·1	..	..	..	41	570	13·9	19	19	1·0	10	220	22·0	..	..	..	..	..	..	..	..	..	5	40	375	420
1907	5	416	83·2	37	231	6·2	..	..	..	42	517	12·3	19	19	1·0	21	241	11·5	..	..	..	..	..	..	..	..	..	203	131	155	489
1908	11	595	54·1	29	237	8·2	..	..	..	30	454	15·1	9	16	1·8	8	211	26·4	..	..	..	..	..	..	..	..	..	31	64	171	266
1909	10	1036	103·6	19	157	8·3	..	..	..	26	438	16·8	8	14	1·7	7	259	37·0	..	..	..	..	..	..	..	..	..	143	59	163	365
1910	14	697	49·8	13	103	7·9	1	8	8·0	29	378	13·0	4	9	2·2	6	260	43·3	..	..	..	..	..	..	..	..	..	54	63	96	213
1911	9	489	54·3	28	207	7·4	..	1	..	31	388	12·5	9	13	1·4	4	207	51·7	1	18	18·0	..	..	..	..	..	..	96	39	435	570
1912	23	1120	48·7	14	81	5 8	..	4	..	26	386	14 8	6	10	1·7	6	199	33·2	..	113	..	306	900	2·94	..	..	..	160	71	87	318
1913	17	986	58·0	8	34	4·2	..	..	..	39	433	11·1	11	15	1·4	6	190	31·7	1	113	113·0	300	665	2·22	79	139	1·76	20	42	220	282

* Notification of Small-Pox and Scarlet Fever, from February, 1882.
‡ Notification of Diphtheria, from August, 1885.
† Notification of Enteric Fever and Typhus, from June, 1883.

§ Notification of Puerperal Sepsis and Erysipelas from 1905.
do. Ophthalmia Neonatorum do. 1911.
do. Phthisis do. 1912.
do. Other Tuberculous Diseases from February 1st, 1913.

OTHER DISEASES, INFECTIVE AND NON-INFECTIVE, AND DEATH-CAUSES.

All the deaths of Nottingham persons registered during 1913 are set out, as far as possible according to age, sex, and reputed cause, in Table III, pp. 8 to 16 ante.

In this part of the report I shall deal very briefly with a few facts of special interest in connection with diseases and death-causes, other than those of the principal epidemic class already discussed in the preceding section.

Syphilis was once again (in 1913) very inadequately represented in the death returns. While it is stated on good authority that between 10 and 15 per cent. of the population in the great Continental cities are affected with syphilis (Erb and Fournier), and while it is known that the maladies directly and indirectly arising from syphilitic infection are both numerous and highly fatal, we have but 23 medical certificates during 1913 upon which syphilis is given either as the sole or contributory cause of death, eighteen of young children (5 m. and 13 f.) from the congenital form of the disease, and five of persons (2 m. and 3 f.) between the 25th and 55th year from acquired syphilis.

The three most important secondary ailments resulting from syphilitic infection (the so-called para-syphilitic ailments) are probably locomotor ataxy, general paralysis of the insane, and some forms of aneurysm. After a careful analysis of the deaths from the last-mentioned group of diseases, as well as from

syphilis proper, occurring among persons of various social and industrial classes, Dr. T. H. C. Stevenson, of the General Register Office, states that he is disposed to think that syphilis is most prevalent among the highest and lowest of the five classes into which he divides the community, and that the three great industries of textile manufacture, mining, and agriculture are in all probability exceptionally free from the disease.

Some part of Dr. Stevenson's analysis of syphilitic deaths, here referred to, was made for the information of the Royal Commission on Venereal Diseases, now sitting, the result of whose deliberations, when published, should prove of exceptional interest and value.

There was no death in Nottingham, during 1913, either directly or indirectly ascribed to **Gonorrhoea** and this notwithstanding the fact that in degree of prevalence and fatality (especially as regards the latter from secondary causes) it is not very far behind syphilis.

Erysipelas, Puerperal Septicæmia, Septic Intoxication, and Septicæmia (including **Pyæmia**).—There were 6 deaths from erysipelas, 11 from puerperal sepsis, and 10 from septicæmia, as compared with 6, 6, and 10 deaths from the same causes in 1912, and an annual average of 10, 11, and 13, respectively, in the three immediately preceding years. The deaths from puerperal sepsis, therefore, were exactly equal to the average of the 3 years prior to 1912.

There were 2 deaths attributed to **Cerebro-Spinal Fever**, both of female infants under 5 years. In neither case, however, was the diagnosis confirmed by the bacteriological test.

The deaths from **Acute Rheumatism** were nine in number, and those from **Rheumatic Heart Affections**, 7. The combined total of 16 is 3 below the annual average of the 5 years ending with 1912.

Phthisis and Other Forms of Tuberculosis.

The deaths ascribed to tuberculosis of all forms in Nottingham during 1913 numbered 379, 222 of males and 157 of females. During the five years ending with 1912 the successive annual totals of such deaths were, 449, 440, 450, 443, and 393, their average being 435. The total number for 1913, therefore, was 56 below the average annual total for the preceding 5 years. The aggregate for 1913 is the second in 23 years—that of 1912 was the first—to fall below 400.

During 1890 the deaths from tuberculosis were increased by the pandemic wave of influenza, and amounted to 555, but between 1890 and 1911, the annual totals of deaths from tuberculosis in Nottingham reached their highest point with 481 in 1900, and their lowest, with 401 in 1899. The average annual number of cases during this period was 436.

The foregoing figures represent the actual numbers of deaths, but, when these are expressed as rates in relation to a growing population, the fluctuations and general decline they indicate are more clearly apparent.

In the last column on page 20 of this report, the annual death-rates per 1,000 from tuberculosis in Nottingham, and in England and Wales, are given from 1856 and 1858, respectively, in quinquennia down to 1890, and for single years after this.

The death-rate from tuberculosis in England and Wales underwent a reduction of 42 per cent. during the last 40 years of the 19th century, and a further and proportionately greater reduction during the first 12 years of the present century (Registrar-General). The corresponding reductions in Nottingham during the same periods were 46 per cent. and 25 per cent.

The 379 deaths from all tuberculosis diseases in Nottingham during 1913 were equal to a death-rate per 1,000 living of 1·43 (143 per 100,000). There were 300 deaths from phthisis (or lung consumption), 173 of males and 127 of females, and these represent a death-rate of 1·13 per 1,000 (113 per 100,000). The deaths from all tuberculous diseases amounted to 9·88 per cent., and those from phthisis to 7·77 per cent. of deaths from all causes.

The corresponding death-rates per 1,000 during 1912 were, for Nottingham, from all tuberculous diseases 1·50, and from phthisis 1·17; and for England and Wales, from all tuberculous diseases 1·35, and from phthisis 1·04. The deaths from all tuberculous diseases and from phthisis were, respectively, equal to 10·3 per cent. and 8·0 per cent. in Nottingham, and to 10·3 per cent. and 7·8 per cent. in England and Wales, during 1912.

The 222 deaths of males from all forms of tuberculosis were equal to a death-rate per 1,000 living males of 1·81 (181 per 100,000), and the 157 deaths of females to one of 1·10 per 1,000 living females (110 per 100,000). The 173 male deaths from phthisis were equal to a death-rate of 1·41 per 1,000 males, and the 127 female deaths from this cause to one of 0·89 per 1,000 females (141 and 89 per 100,000, respectively). During 1912, the male death-rates from all tuberculous diseases and from phthisis were, respectively, 1·74 and 1·40, and the female 1·28 and 0·97 per 1,000.

Table showing total death-rates, and death-rates of males and females from all tuberculous diseases and from phthisis, respectively, in Nottingham during 1912 and 1913, and in England and Wales during 1912—the last being the latest available.

(*a*) Death-rate from all tuberculous diseases—

	Nottingham, 1912	Nottingham, 1913	England & Wales, 1912
Total both sexes	1·50	1·43	1·35
Males	1·74	1·81	1·54
Females ..	1·28	1·10	1·17

(*b*) Death-rate from phthisis—

Total both sexes	1·17	1·13	1·04
Males	1·40	1·41	1·22
Females ..	0·97	0·89	0·87

The deaths of males from all tuberculous diseases increased therefore during 1913, as compared with 1912, by 7 per 100,000, and from phthisis by 1 per 100,000; and the deaths of females similarly compared diminished by 18 and 8 per 100,000, respectively.

It is important to bear in mind that the deaths from phthisis (which usually signifies tuberculous disease of the lungs) constitute between 70 per cent. and 80 per cent. of all the deaths ascribed to tuberculosis. In Nottingham, during 1913, the deaths ascribed to phthisis were equal to 79·16 per cent. of all, in 1912 to 77·86 per cent., in 1911 to 71·80 per cent., and in 1910 to 75 per cent. The corresponding proportion for England and Wales in 1912, the latest year for which the figures are obtainable, was 76 per cent.

In attempting to form an estimate of the number of cases existent in the City in a given year, it has been customary to multiply the number of deaths occurring in the year by three, and I am still of opinion that this method furnishes a fairly reliable estimate of the number of cases. This method furnishes a total of 1,137 cases for 1913. The number notified during 1913 under the Local Government Board Order of 19th December, 1912, which came into force on 1st February, 1913, and the orders in operation until the latter date,

was 804 (665 of phthisis and 139 of other forms of tuberculosis), and we may, I think, regard this number as affording confirmation of the reasonableness of the above estimate, for it is fair to suppose that about 30 per cent. of the cases in an incipient stage would escape notification, and this proportion represents the difference between the estimated number and those actually notified.

In Table III, pp. 8 to 15 of this report, opposite side numbers 32 to 38, all the deaths certified as due to tuberculous disease during 1913 are set out according to sex, age, and the part or parts of the body affected. It will be unnecessary, therefore, to deal with these details here. Full particulars of the cases dealt with at the Sanatorium and Dispensary, respectively, are given in the reports of these institutions.

The specially well-marked decline in the mortality from tuberculosis, which has undoubtedly resulted from the crusade against it organized with so much energy in recent years, and which culminated in the "Medical" and " Sanatorium Benefit " provisions of the National Health Insurance Act, is highly encouraging, because it shows that the prevalence of the disease can be reduced by appropriate measures of prevention and cure below the relatively low point reached (in this country) towards the end of the 19th century, and which many people were disposed to regard as an almost irreducible minimum. General sanitary improvements and rational education had effected this previous reduction : it remained, and yet in great measure still remains, to reach the individual persons in the classes now principally affected, and induce them to regulate their lives according to knowledge.

If this is done the disease will continue to decline, but probably only to a certain point, for so long as a

" submerged " social " tenth " exists, tuberculosis will almost certainly also continue to exist as one of the diseases by which offended Nature eliminates the unfit.

I give, below, the table I have kept for the past 7 years recording the numbers of deaths from phthisis which have occurred, and (as regards a large proportion) originated, in houses and tenements of nine different rentals, ranging, with one shilling increments, from 2/- to 3/- to 10/- and upwards per week. The comparative uniformity of the total numbers of deaths recorded in houses of the same rentals year after year is a remarkable fact revealed by this table.

NOTTINGHAM.

Deaths from tuberculous phthisis in houses of various rentals.

Rental of House.	No. of Deaths.						
	1907.	1908.	1909.	1910.	1911.	1912.	1913
2/- to 3/- per week (gross rental) ..	11	17	16	15	10	10	11
3/- to 4/- " " " ..	66	64	61	48	45	46	39
4/- to 5/- " " " ..	72	79	65	62	73	66	75
5/- to 6/- " " " ..	102	101	98	127	105	81	103
6/- to 7/- " " " ..	41	41	44	43	51	61	41
7/- to 8/- " " " ..	16	14	18	20	13	16	15
8/- to 9/- " " " ..	14	8	6	6	11	10	11
9/- to 10/- " " " ..	4	4	4	8	4	8	3
Above 10/- " " " ..	5	7	11	7	6	8	2

N.B.—Deaths from phthisis in the Union Workhouse, and other Public Institutions, have been re-distributed (in this table) to the class of house from which the patients were originally removed. The majority of better-class patients die at home.

It is obviously necessary to show the relative proportion of houses of certain rentals to the total number of occupied houses in the City, in order to show the relation of the incidence of disease or mortality upon the houses in question to that upon population.

As on former occasions, I am able to give the approximately exact proportions of all occupied houses which are let at rentals above and below 10/- a week (or £26 per annum), respectively, but I cannot give the proportions of houses above and below other rentals with the same exactitude. As in previous years, therefore, I shall take the proportions above and below this rent limit. The proportion of all houses let at 10/- a week and less is 88 per cent., and there are only 12 per cent. of all at rentals above this figure.

The number of deaths which occurred in houses of 10/- per week and less during 1913 was 298, the same total as in 1912, but the deaths in houses of higher rental numbered only 2 in 1913, as compared with 8 in 1912. The 298 deaths in the smaller houses during 1913 were equal to 99·33 per cent., and the 2 in the larger houses to 0·66 per cent. of all the deaths from phthisis. The proportion of the 99·33 per cent. of deaths, however, to the 88 per cent. of smaller houses in which they occurred, is 20·5 times greater than that of the 0·66 per cent. of deaths to the 12 per cent. of larger houses, or, to put it in other words, the proportional amount of fatal phthisis in houses above £26 per annum rental was less than 1/20th of that in houses below this rent limit. During the 7 years 1907-1913, inclusive, the average ratio of the mortality from phthisis in the smaller to that in the larger class of houses was equal to 6·7 : 1—67 to 10.

It is perhaps hardly necessary to add that all these facts point simply to the necessity for reform in the conditions of life among the poor and the industrially employed. More fresh air and sunlight, greater cleanliness, better feeding, and more sobriety, are specially required to counteract the existing tendency among these sections of the general community to succumb to infection.

I have again made no attempt to apply any correction to my figures for the varying numbers of persons in houses of different rentals. Such correction appears to be unnecessary where the entire population is dealt with. Indeed, any possible correction would probably serve to accentuate the preponderant incidence of the disease upon the poor and the industrially employed, because the numbers of persons per house are for the most part larger in the higher- than the lower-class dwellings, and therefore the relative immunity of the higher-class implies a corresponding freedom from the disease on the part of a relatively more numerous population in their case.

Acute and Chronic Alcoholism.—The deaths directly attributed to Alcoholism were 16 in number, 1 to the acute and 15 to the chronic form. Eleven were of males and 5 of females. All the deaths occurred between the 25th and 65th years. The numbers of deaths recorded in each of the 3 preceding years were, respectively, 10, 19, and 24.

Cerrhosis of the Liver.—Prior to 1912, the Registrar-General had included the deaths ascribed to this disease under the head of alcoholism, because in the great majority of cases the disease is undoubtedly induced by alcoholic intemperance, but in his last published annual report (that for 1912) he explains that, in accordance with international practice, he now classifies them apart. I have always pursued this latter course, because in a certain number of cases, especially in young persons, the disease is due to causes other than alcohol, *e.g.*, congenital syphilis, and acute infectious diseases.

The deaths certified as due to cirrhosis of the liver during 1913 were 28 in number, 17 of males and 11 of females. There was one death of a male, æt. 15 ; the

other deaths were all of adults between 30 and 65. The sexual proportions of the deaths were practically normal, although the disease is very commonly held to be peculiar to males of middle age.

From the Registrar-General's recent reports, there would appear to have been during 1911 and 1912 a slight increase in the number of deaths originating in alcoholic intemperance, as compared with the immediately preceding years ; but, prior to 1911, there had been a continuous decrease in the annual totals of such deaths from 1900 onwards, amounting to 59 per cent. in the 11 years. There had previously been a steady increase in the mortality during the closing years of the last century which reached its maximum in 1900.

Cancer and Sarcoma (Malignant New Growths).—The deaths attributed to malignant new growths in Nottingham, during 1913, numbered 320, 300 being referred to the true epithelial type (the carcinomata), and 20 to the connective tissue type (the sarcomata).

The annual totals of deaths ascribed to both of these causes during the 5 years ending with 1912 were, consecutively, 254, 247, 250, 275, and 271. The average annual number during the last 10 years of the past century, was 188, and that of the first 10 years of this, 224.

The deaths from the true cancers alone call for special notice here, as they accounted for 94 per cent. of the whole mortality from malignant new growths during 1913, and are steadily increasing in number, whereas, those from the sarcomatous group are comparatively few, and, though increasing to a somewhat greater extent than is explained by the growth of population, are doing so very slowly.

The following were the total numbers of deaths from true cancer during the 5 years ending with 1913, viz., 227, 232, 251, 252, and 300. It will thus be seen that there was a continuous increase throughout the series, and that the last increase was equal to 19 per cent. of the previous year's total, the final figure, for 1913, being by far the highest on record.

Of the 300 total deaths in 1913, 115, or 38·3 per cent., were of males, and 185, or 61·7 per cent., of females. Although the deaths of females from cancer always exceed those of males, even with the comparatively small numbers involved in our local mortality from this cause, the true ratio of the sexual mortality can only be obtained by an examination of larger numbers. Turning to the reports of the Registrar-General for England and Wales, we learn that the male proportion of the total mortality has advanced from 28 per cent. some 50 years ago, to about 44 per cent. at the present day. We learn also from the same source that, whereas between 1861 and about 1880 the advance of the female mortality was greater than the male, from 1890 down to 1912 (the latest year for which the figures are available) the male mortality has increased more rapidly than the female, the deaths of males during this latter period having grown by 393 per million, but those of females by only 267 per million.

The following tabular statement shows at a glance the total death-rates, and the death-rates of each sex, per 1,000 of population in Nottingham City, from true cancer, during each of the 5 years, 1909-1913, inclusive.

	1909	1910	1911	1912	1913
Total cancer death-rate	0·85	0·87	0·96	0·96	1·13
Male cancer do.	0·82	0·77	0·79	0·79	0·94
Female cancer do.	0·89	0·96	1·12	1·11	1·30

It is worthy of note that the number of deaths, and consequently the death-rate, from true cancer, were exactly identical with those from tuberculous phthisis, and that the male and female death-rates of either disease, if transposed, are curiously similar, i.e., the female death-rate of phthisis (0·89) corresponds to the male death-rate of cancer (0·94), and the male death-rate of phthisis (1·41) to the female death-rate of cancer (1·30).

Nottingham, 1913.

Deaths of Males and Females from Cancer, arranged in Age-periods, and according to part of Body affected.

Part of Body Affected.	15–		25–		35–		45–		55–		65–		75–		85–		Totals.		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	Both Sexes
Uterus	..	..	..	..	..	11	..	16	..	14	..	9	..	1	..	..	..	51	51
Stomach	..	..	..	..	..	2	4	3	7	6	8	3	2	5	..	..	21	19	40
Intestines	..	..	..	..	..	..	3	2	9	6	5	5	4	3	..	..	21	16	37
Liver	..	..	..	1	..	..	6	5	4	5	1	6	1	4	1	..	13	21	34
Breast	..	..	..	..	..	3	..	5	..	9	..	8	..	1	..	1	..	27	27
Rectum	..	..	1	..	1	..	1	5	4	4	3	5	2	1	..	..	12	15	27
Bladder	..	..	..	..	..	..	2	1	1	..	3	2	2	..	..	..	8	3	11
Œsophagus	..	..	..	..	1	..	2	..	2	..	2	2	..	..	..	..	7	2	9
Lung	..	..	..	..	..	..	..	..	1	..	..	4	..	1	..	..	1	5	6
Prostate	..	..	..	..	..	..	..	..	1	..	3	..	1	..	..	..	5	..	5
Larynx	..	..	..	1	..	1	1	..	..	1	..	..	1	..	..	..	2	3	5
Lip	..	1	..	..	..	..	..	..	..	..	1	..	2	..	..	..	4	..	4
Tongue	..	..	..	..	..	..	..	..	2	1	..	..	1	..	..	..	3	1	4
Ovary	..	..	..	..	..	1	..	1	..	2	..	..	..	..	..	..	..	4	4
Pharynx	..	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	3	..	3
Mediastinum	..	..	..	..	1	..	..	..	1	..	..	..	..	1	..	..	2	1	3
Pancreas	..	..	..	..	..	..	1	..	1	..	1	..	..	..	..	..	3	..	3
Vulva	..	..	..	..	..	..	..	..	..	1	..	1	..	1	..	..	..	3	3
Parotid Gland	..	..	..	..	..	..	..	..	1	1	1	..	..	..	..	..	2	1	3
Omentum	..	..	1	..	..	..	..	..	..	..	1	1	..	..	..	..	2	1	3
Cheek	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	1	1	2
Throat	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	1	1	2
Abdomen	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	2	2
Axilla	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	1
Urethra	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	1
Face	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	1
Brain	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Scalp	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	1
Jaw	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	1
Cervical Glands	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1
Thumb	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1
Pelvic Organs	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	1
Spleen	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	1
No locality given	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	2	2
Totals	..	1	..	2	2	4	19	20	41	36	53	34	48	17	21	1	1	115	185	300

Nottingham, 1913.

Deaths from Sarcoma, arranged as in Cancer Table.

Part of Body Affected.	5–		15–		25–		35–		45–		55–		65–		75–		85–		Totals.		
	F		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	Both Sexes
Jaw		1	..	..	1	..	..	..	..	..	1	..	1	..	..	..	..	..	3	1	4
Lung		..	..	..	..	..	1	..	..	..	1	1	..	..	..	..	..	..	2	1	3
Mediastinum		..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	2	2
Kidney		..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	1	1	2
Neck		..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
Tonsil		..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Brain		..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	1
Spinal Cord		..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Ovary		..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	1
Thigh		..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Liver		..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Abdomen		..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	1
Retro-peritoneal		..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	1
Totals		1	..	1	2	1	2	1	1	3	3	2	1	2	..	..	..	..	9	11	20

Cancer, most unfortunately, unlike phthisis, is increasing and increasing rapidly, and owing to our ignorance of its causation—except with regard to the action of irritation as a predisposing cause—we are powerless to prevent its extension.

The tables of deaths from cancer and sarcoma, respectively, arranged according to sex, age, and region of the body affected, which accompany this section, will repay a close examination. The first shows a marked localization of the disease in different parts and organs of the body in each sex, and an age-incidence almost exclusively confined (so far as our local deaths are concerned) to periods of life after the 35th year. The second table shows a general distribution in almost all parts of the body, without any sign of preference for age or sex, for organ or region.

Diabetes Mellitus.—The deaths attributed to diabetes mellitus during 1913 were 33 in number. The annual totals during each of the preceding 5 years were, 35, 30, 27, 28, and 36.

During 1913 there were 18 deaths of males and 15 of females. Sixty-four per cent. of the deaths were after the 45th year. The average proportion of all deaths from this cause which occur after middle life is somewhat over 70 per cent.

The mortality from this disease is increasing in both sexes, but more rapidly among women than men, and the increase is principally after middle life in both. The death-rate of England and Wales for each sex from this cause was again in 1912 (as in 1910) the highest on record.

Nerve strain, excessive food, and lack of exercise have probably much to do with the causation of this malady, especially among persons of mature years, and, assuming the correctness of this view, one is certainly justified in looking for its continued increase, judging from the habits and mode of life of numerous people one meets, particularly among the well-to-do of our large urban communities.

Premature Birth.—The deaths ascribed to premature birth I have once again placed in a class by themselves, and for the principal reason that they represent in a peculiar manner—except in those cases brought about by wilful interference with the course of pregnancy—a type of death-causes which are susceptible of prevention only by measures addressed to the condition of the parents, and especially of the mother, it may be prior to conception, but always prior to birth. It must be obvious to anyone having only the most superficial knowledge of the subject, that the task of the reformer is here both difficult and delicate, but knowledge, industry, and tact, we know from actual experience, can accomplish much even in face of such difficulties as are here apparent.

The deaths attributed to premature birth during 1913 were 141 in number, as compared with 186, 142, 152, 148, and 145 in the five preceding years respectively, and an annual average of 149 for the 10 years ending with 1907.

Of the 141 deaths certified as due to premature birth, 103, or 73 per cent., occurred during the first week, and 128, or 90·7 per cent., in the first month.

The comparative uniformity alike in the total number of these deaths (during the past few years), and in the proportions which occur at certain periods after birth, is a striking feature of the statistics of premature birth. Unfortunately, in dealing with small numbers like the annual deaths of our city year by year, the accidental variations characteristic of small numbers will often occur to break the continuity of a distinctive feature. For example, during 1913, the female deaths (73) exceeded the male (68) from premature birth, whereas, when large numbers of these deaths are dealt with, the male deaths stand almost uniformly to the female in the proportion of about 5 : 4. If, however, the deaths from collapse of the lungs, congenital defects, and atrophy and debility, be included with those from prematurity—and many of these are almost interchangeable with it—a considerable male preponderance is apparent in the total.

Congenital Defects, Lung Collapse (atelectasis), **and Debility at Birth.**—The aggregate of deaths referred to these causes during 1913 was 118, as compared with 129, 127, 118, 98, and 101, consecutively, during the preceding 5 years.

The deaths from congenital defects were 56 in number, 28 of each sex. Forty-seven, or 84 per cent., occurred in the first year, and 28, or 50 per cent.,

in the first month of that year. Of the 16 deaths from lung collapse, 12 occurred in the first week, 15 in the first fortnight, and all within the first 3 weeks of life. Twelve of these deaths were of males, and four only of females.

Of the 46 deaths from debility at birth, 28, or 61 per cent., were of males, and 18, or 39 per cent., of females. Sixty per cent. occurred in the first three months, and all within the first year of life.

I may once more point out that where death-causes are ante-natal in origin, like those in this and the preceding section, and are almost uniformly more fatal to males than females, any measures for promoting infant welfare, which prevent or mitigate maladies more fatal to females than males (as do many at present in force), must, in the absence of successful ante-natal reforms, have the effect of augmenting the existing majority of females in the population at large.

Want of Breast Milk, Atrophy, Debility, Marasmus.—The total deaths referred to these cognate causes during 1913 numbered 76, as against consecutive totals of 99, 114, 75, 111, and 75 in the preceding quinquennium. Of the 76 total deaths in 1913, 68, or 90 per cent., were during the first year, as compared with 87 per cent. the year before. A large number of these deaths are the outcome of chronic indigestion, resulting from an unsuitable diet, an attack of gastro-enteritis, and the like, or from combinations of such causes.

There is no class of cases more urgently in need of succour and treatment than those which succumb to the death-causes here specified, or whose need is more appropriately and effectively met by the ministration afforded at our Mothers' and Babies' Welcomes.

Rickets.—The number of deaths ascribed to rickets during 1913 was 6 only, 4 of males between the 1st and the 9th month of the 1st year of life, and 2 of females between the 1st and 5th years. The annual numbers of deaths during the preceding 5 years were successively, 4, 11, 12, 7, and 8.

The deaths from this cause appear to be definitely declining both in Nottingham and in the country at large. The diminution in England and Wales has been continuous since 1904, and in 1912, as compared with the previous year, it was more pronounced than in any year since 1905.

The local numbers of deaths are so small, and fluctuate so much from accidental causes, that it is necessary to study the records of a long series of years in order to discover evidence of a declining tendency. A retrospect as far as 1890, however, is sufficient for this purpose. The average annual number of deaths during the last 10 years of the past century was 22, but that for the first decade of the present century was 12 only. Again, during the first 5 years of the present century the annual average was 15, while that for the second 5 years was 9.

Old Age.—The deaths ascribed to simple old age, without complications, numbered 152. The totals of such deaths during the three preceding years were, respectively, 170, 195, and 210. The fluctuations are of no special significance as regards the causes of death in aged persons, but simply imply in most cases the mention or non-mention on death certificates of various conditions and complaints by which death in old age is actually occasioned.

The deaths of males referred to simple old age were 64 in number, and those of females 88. There was one (M.) death only so certified below the 65th

year, but 125, or 82 per cent.—the same proportion as in 1912—above the 75th year. The excess of female deaths over those of males, under this heading, is explicable by the fact that more women than men die in old age of simple failure of vital force.

Almost exactly 60 per cent. of the deaths in this group over 85 years were again, as in 1912, those of females. The female proportion of all the deaths registered in the City during the year as over 85 was 56 per cent.

There were 20 deaths of persons aged (or reputed to be aged) 90 years and upwards. Eleven of these were of males and 9 of females. There were 2 deaths given as over 95, one of each sex. The female was stated to be 98, the male 97. There was no death recorded above these ages.

The following table gives the reputed age in completed years and the sex for each of these cases :—

NOTTINGHAM. Deaths above 90 years. 1913.

Completed Years	90	91	92	93	94	95	96	97	98	Completed Years.	
Male Deaths ..	4	1	2	1	..	..	..	1	..	9	Male Deaths.
Female „ ..	2	3	4	..	1	..	..	..	1	11	Female „
										20	Total of Both Sexes.

In England and Wales, during 1912 (the latest year for which the figures are available), there were 67 deaths of reputed centenarians, 50 of females and 17 of males. The certified deaths of persons stated to have lived 100 years and over in England and Wales during the three preceding years were 61, 65, and 63, respectively.

Infantile Convulsions.—I may once more mention that infantile convulsions are only a symptom, and that they should never be given as a death-cause unless the disease or condition from which they arise cannot be discovered. Forty-eight deaths were so certified during 1913, as compared with 65, 67, 88, 75, and 56, respectively, in the five years ending with 1912.

Of these 48 deaths during 1913, 27 were of males and 21 of females. Thirty-seven, or 77 per cent., occurred in the 1st year, and 28, or 60 per cent. of all, during the first half of that year.

Meningitis.—The number of deaths attributed to meningitis without qualification, during 1913, was 17, as against 31, 25, 28, 35, and 31, respectively, in the five years ending with 1912. Of the 17 deaths in 1913, 11 were of males and 7 of females. Ten, or 59 per cent. of all, were under 5 years of age, and 6, or 35 per cent., were under 1 year.

The fall in the number of deaths so certified in 1913, as compared with other recent years, was much to be desired, for simple "meningitis," if given alone without mention of any specific cause from which it may have arisen (e.g., tuberculosis, cerebro-spinal fever, cerebro-spinal lepto-meningitis, pneumonia, erysipelas, or other acute fevers), does not admit of satisfactory classification.

Cerebral Hæmorrhage (Apoplexy), Hemiplegia, Disease of Blood Vessels.—The deaths under this heading have been differentiated in the large table of deaths from various causes (No. III, pp. 8 to 15 ante) in my Annual Reports since 1901, from those ascribed to obstruction of blood-vessels (softening of the brain, etc.).

The number of deaths referred to cerebral hæmorrhage during 1913 was 184. The consecutive annual totals of deaths from these causes since the new classification was adopted in 1901 have been as follows : 173, 204, 158, 173, 157, 179, 193, 187, 195, 180, 204, and 175. The average of these numbers is 182, a number less by 2 than the total for 1913.

Of the 184 deaths during 1913, 176, or 96 per cent. —the same proportion as in 1912—were above the 45th year. It is a curious fact that during the 5 years ending with 1912 the range of the corresponding annual proportions has been only from 93 per cent. to 96 per cent.

It is commonly held that the mortality of females from these causes exceeds that of males only between the 35th and 55th years, and that the male mortality preponderates afterwards. In this City, however, in recent years, there has been a preponderant female mortality at almost all age-periods at which such deaths occur, and the proportional excess of female deaths above 55 years has been as great as that below. During 1913, there were 157 deaths from these causes after the 55th year, 70 of males and 87 of females. Of these, 48 occurred after the 75th year, 19 being of males and 29 of females.

General Paralysis of the Insane, and Other Forms of Insanity.—The deaths attributed to general paralysis of the insane during 1913 numbered 16, as compared with consecutive totals of 21, 22, 25, 27, and 35 for the 5 years ending with 1912, and an annual average of about 25 for a long series of years.

This complaint, and locomotor ataxia (which is now thought by some good authorities to be the same disease with a different site in the nervous system),

are members of the group of meta- or para-syphilitic affections, dependent for their origin upon the syphilitic parasite or its poison. Among predisposing causes are over-work, excitement, and worry.

Males suffer from general paralysis of the insane to a greater extent than females, and this is exemplified in a striking manner by the local figures for 1913, which show 15 male deaths to 1 female. The average proportion of male to female mortality in England and Wales appears to be approximately as 3 or 4 to 1.

During the three years ending with 1912, the male and female deaths from this disease in Nottingham were, respectively, 19 and 6, 18 and 9, and 31 and 4. The majority of the cases occur between the 30th and the 55th years, and during 1913, 14 out of 16 deaths (or 88 per cent.) occurred within these age-limits.

Forty-seven deaths were referred to other forms of insanity (non-puerperal), 31 of males and 16 of females. Forty-four, or 84 per cent., occurred between the 45th year and extreme old age. There has been a large apparent increase of late in the number of deaths under this heading, and although this is probably due in part to an actual increase in the number of deaths from insanity, it is also explained in part by change of classification, the deaths of persons affected with senile dementia being now included.

Locomotor Ataxia (Tabes Dorsalis, Posterior Spinal Sclerosis).—The pathology of this disease, as a sequela of syphilis, has been referred to in the previous section. Three deaths only were certified during 1913, 2 of males and 1 of a female. Two were between 45 and 55 years, and one between 55 and 65. The

number of deaths from this cause in 1912 was 6, and the annual average of the preceding 5 years was 5. The sexual incidence, as indicated by the deaths, is approximately as 10 m. : 1 f.

Epilepsy.—The deaths attributed to epilepsy were 24 in number, as compared with consecutive totals of 24, 23, 32, 25, and 26 during the 5 years ending with 1912. There were 13 male and 11 female deaths. The deaths were distributed over almost the entire span of human life from the 5th to the 85th year, but half of all occurred between the 25th and 45th years. The Registrar-General differs from certain high medical authorities in assigning the higher mortality from this disease to the female sex.

Neuritis, Multiple and Peripheral Neuritis.—There were 11 cases in which death was attributed to neuritis in some form during 1913, as compared with 3 in 1912, and an annual average of 6 during the preceding 5 years. The most important variety in this country which is not due to lead, arsenic, etc., or to certain specific diseases, is probably that arising from habitual alcoholic intemperance. This variety is more common in women than men, in the proportion of at least two to one. The continual soaking of the body with alcohol, by small doses frequently repeated, is the form of indulgence most conducive to this disease.

Organic Diseases of the Heart and Blood-Vessels.—In order to allow of an even comparison between past and present records, the original classification of deaths definitely and directly ascribed to disease of the heart and blood-vessels under this heading, has been adhered to. Deaths attributed to such causes as cerebral hæmorrhage, embolism, and thrombosis are dealt with elsewhere.

The deaths during 1913 directly referred to disease of heart and blood-vessels were 529 in number, 270 of males and 259 of females. The annual totals of such deaths in both sexes for the 5 years 1908-1912, were 455, 453, 436, 426, and 471.

The deaths certified as from valvular heart disease, in 1913, numbered 340, 159 of males and 181 of females. The consecutive annual totals of such deaths during the preceding 5 years were 234, 288, 299, 285, and 326.

The Registrar-General, and certain other statistical authorities, have recently pointed out that the apparent increase of deaths from valvular heart disease is at the (numerical) expense of other less definite forms of heart affection. In other words, medical men are now definitely describing the heart mischief in fatal cases of valvular disease, instead of giving the cause of death as simple heart disease.

It is commonly stated that with large numbers the female deaths from valvular heart disease exceed the male up to 45 years of age, and the male the female after this period. In Nottingham, however, during 1913, and in many past years, there has been an almost uniform preponderance of female over male deaths both above and below the 5th decade. It is interesting to note that 78 per cent. of all the deaths from valvular heart disease occurred between the 45th and 80th years, and that 30 per cent. of all, the largest proportion in any decade, occurred between 65 and 75 years.

Bronchitis, Pneumonia, Pleurisy, Emphysema, etc. (Diseases of the Respiratory System other than Phthisis).—This group of pathologically diverse diseases and death-causes affecting the respiratory system, is once more retained as one heading in this report for the following principal reasons: (1) to allow of comparison with past records made under

the same classification ; (2) because, from the Registrar-General's and other reports, it is obvious that the reciprocal variations in the numbers of deaths severally assigned to lobar pneumonia and bronchitis, associated with a relative uniformity in the aggregates from year to year, can only be explained by a certain degree of confusion on the part of many medical practitioners in certifying deaths due to the separate diseases.

The deaths assigned to the diseases in this group during 1913 amounted to 696. If we deduct those ascribed to emphysema, asthma, and pleurisy, which numbered 29, we obtain a total comparable with the aggregates of previous years, amounting to 667. The totals for each of the three years, 1910-1912 were, respectively, 840, 689, and 669. The average annual totals for the three consecutive quinquennia ending with 1899, 1904, and 1909, were 699, 732, 758.

The total numbers of deaths under this heading is liable to be increased or diminished by the presence or absence of maladies like measles, whooping-cough, and influenza, of which bronchitis, pneumonia, etc. are common and very fatal complications.

The deaths from bronchitis during 1913 numbered 358, 117 from acute and 241 from chronic bronchitis. Of the 117 deaths from the acute variety, 52 were of males and 65 of females. Fifty-five occurred before the end of the 5th year, and 46 after the 55th year.

Of the 241 deaths from the chronic form, 109 were of males and 132 of females. Two hundred and thirty-six, or 98 per cent., occurred after the 45th year, and 176, or 73 per cent., after the 65th year.

There were 204 deaths certified as due to bronchitis after the 65th year, and only 13 as due to broncho-pneumonia. When, however, we recollect that

broncho-pneumonia is a very common cause of death among aged persons, we can only infer that many of the deaths here referred to bronchitis would be more correctly classified as due to pneumonia, and the justice of this inference is borne out by the results of post-mortem investigations in recent years at many London hospitals.

If, as seems probable, pneumonia in medical parlance, here and elsewhere, is short for lobar pneumonia, we may of course take the sum of the deaths certified as from pneumonia and lobar pneumonia as giving the total mortality from the latter disease. It is important to determine the actual number of such deaths as nearly as possible, because lobar pneumonia is an acute specific fever, often highly infectious and highly fatal. As I have pointed out before, the age distribution of the deaths lends support to the view that the same disease is described under the different terms, for these are numerous up to the end of the 5th year, very few from this point until some time after the end of the 15th year, and increasingly numerous from thence onwards to old age, in both cases, and practically to the same proportional extent in each.

The deaths assigned to pneumonia and lobar pneumonia together numbered 155, 80 of males and 75 of females. Forty-eight, or 31 per cent. of all, occurred before the end of the 5th year, and 97, or 63 per cent., after the 20th year. These proportions are very similar to those of other recent years, as also the increasing numbers of deaths in successive quinquennia from the 20th to the 65th year. These numbers in 1913 were as follows: 6, 10, 13, 20, 21.

Broncho-pneumonia, especially as a primary disease, is often caused by infection with the same micro-organism as lobar pneumonia—the pneumococcus. It may occur as a complication of such

diseases as bronchitis, whooping-cough, measles, scarlet fever, diphtheria, Bright's disease, and tuberculosis. It is chiefly a disease of infancy (1st and 2nd years) and later adult life.

The deaths referred to broncho-pneumonia in 1913 were 152 in number, 72 of males and 80 of females. One hundred and twenty-seven were stated to have occurred before the end of the 5th year, but only 21, or 14 per cent., were certified between the 45th year and extreme old age, although this disease is extremely liable to attack the aged. As I have already stated above, I am strongly of opinion that many deaths of elderly and aged persons certified as due to bronchitis are actually due to pneumonia, and this opinion is supported by the evidence of careful post-mortem examinations carried out in many large hospitals, especially several of those in and about London.

The mortality from pneumonia of all kinds is higher in winter than summer, more males succumb to it than females—often to the extent of 50 per cent.—and typical urban districts have an average mortality from it usually more than 100 per cent. greater than typical rural districts.

Ulcer of Stomach and Duodenum was the reputed cause of 23 deaths during 1913, 15 being of males and 8 of females. The total was also 23, but the male and female deaths numbered 16 and 7, respectively, during 1912. The consecutive annual deaths during the 5 years ending with 1911 were 26, 18, 21, 21, and 20.

The average sexual incidence of the present time is said to be in the proportion of 4 m. to 7 f. Females suffer more than males up to the menopause, and their highest mortality is between the 20th and 25th years. The male death-rate exceeds the female at all ages after the 45th year, and the highest mortality for males is between the 65th and 75th years.

The age and sex distribution of fatal cases of peptic ulcer is given in Table III, pp. 8 to 15 ante, side number 122. The local figures for 1913 will not be found to bear out the above cited rules of age and sex incidence. The analysis of larger numbers than these is necessary to reveal the facts stated.

Appendicitis.—The interest excited by this complaint is out of all proportion to the mortality it causes. Eleven deaths only were certified as due to it in 1913 (5 of males and 6 of females), as compared with 11 in 1912, and an annual average of 14 for the preceding 11 years, which covers the whole period during which the disease has been thoroughly recognized.

As in other years, the deaths of 1913 ranged from infancy to old age, but 7 out of the total of 11 occurred after the 35th year. This fact at first sight appears to infringe the rule that appendicitis is mainly a disease of childhood and adolescence, but it is probable that the practice of early operation which now holds the field has reduced the mortality to a greater extent among the young than the old.

Hernia and other (non-malignant) **Obstructive Affections of the Bowels** (excluding the Vermiform Appendix).—The deaths attributed to these causes during 1913 numbered 28—14 of each sex—as compared with 30, 32, 34, 33, and 25 in the 5 preceding years respectively. All the deaths from true hernia occurred after the 35th year.

Acute Nephritis and Bright's Disease (Chronic Nephritis).—I must once again point out that although the above broad distinction is all that is here practicable for lack of further information upon the death returns, the varieties of these complaints are as numerous as the causes from which they originate, and these are many.

The number of deaths ascribed to both varieties of nephritis during 1913 was 131, as compared with 92, 105, 97, 89, and 104, consecutively, in the 5 years ending with 1912.

Thirty-nine deaths were given as due to acute nephritis, 20 of males and 19 of females. Fourteen, or 36 per cent., occurred between birth and the 20th year, and 25, or 64 per cent., between the 25th year and the 85 plus period. There was only one five-yearly period, that from 20 to 25 years, during which there was no death recorded.

Ninety-two deaths were certified as from the chronic forms of nephritis, 45 of males and 47 of females. Eighty-two, or 89 per cent., of these occurred between the 35th year and extreme old age.

According to the returns of the Registrar-General, these complaints are rather more fatal to males than females, and are steadily increasing.

There were five deaths referred to **Renal** and **Vesical Calculus** (stone in kidney and bladder), 3 of males and 2 of females. The male deaths were, one between 35 and 45, and 2 between 55 and 65, and the female between 25 and 35, and after 85 years, respectively.

Diseases of Bladder and Prostate (non-malignant), **Stricture of Urethra.** — There were 23 deaths given as due to these causes, against 13, 17, and 27 in the 3 preceding years, respectively. Twenty-one of the deaths were of males and 2 of females (bladder disease). All but one were after the 45th year.

The deaths ascribed to organic stricture of the urethra in males were again, as in 1912, only 3 in number. This condition is usually the outcome of previous gonorrheal infection, and is, unfortunately, of fairly frequent occurrence, and of the gravest augury to the health and life of the sufferer. The number of deaths here given as due to this cause is necessarily far short of the total of those directly and indirectly resulting from it.

Diseases (non-malignant) **of the Female Organs of Generation**—such as cystic disease of the ovaries, and (so-called) fibroid tumours of the uterus. The deaths referred to these were 8 in number, 1 from ovarian and 7 from uterine mischief. The totals of such deaths in the five preceding years were, successively, 11, 14, 8, 10, and 10. The ages in the fatal cases during 1913 ranged from 20 to 75 years.

Accidents of Childbirth (exclusive of puerperal sepsis).—The deaths of mothers from non-septic accidents of birth during 1913 were given as 15 in number. The annual totals during each of the 5 preceding years were, consecutively, 12, 29, 27, 8, and 20. There was one death from miscarriage, 5 from flooding (hæmorrhage), 1 from rupture of the uterus, 1 from thrombosis, and 7 from other accidental causes.

These 15 fatal accidents of childbirth during 1913 were equal to 2·40 per 1,000 births during the year, as compared with 3·23 in 1912. If we add to the above-named fatal accidents the deaths from puerperal sepsis in each year (6 and 11, respectively), we obtain rates per 1,000 births of 4·11 for 1912 and 4·17 for 1913. The corresponding rate for England and Wales during 1912 (the latest obtainable) was 3·78 per 1,000 births, and the average rate for the 10 years ending with 1911, 3·90.

I may once more mention that the recorded maternal deaths from abortion—one only in this instance—probably do not represent the total actual mortality from this cause, as artificial abortion is fairly frequently produced, and the mortality is not inconsiderable.

I give, below, for each of the past 10 years, the numbers of births (including the still-births now notified to me—principally by midwives—under the Notification of Births Act) corresponding to one maternal death, (*a*) from accidents of childbirth exclusive of septic infection, (*b*) from accidents of childbirth inclusive of septic infection. I still consider it desirable to give these separate statements, notwithstanding that the Registrar-General now includes puerperal septicæmia with other accidents under a common heading.

Accidents of Parturition, exclusive of sepsis :—

1904,	1	maternal	death	in	405 births.
1905,	1	,,	,,	,,	416 ,,
1906,	1	,,	,,	,,	322 ,,
1907,	1	,,	,,	,,	405 ,,
1908,	1	,,	,,	,,	585 ,,
1909,	1	,,	,,	,,	233 ,,
1910,	1	,,	,,	,,	251 ,,
1911,	1	,,	,,	,,	812 ,,
1912,	1	,,	,,	,,	317 ,,
1913,	1	,,	,,	,,	416 ,,

Accidents of Parturition, inclusive of sepsis :—

1904,	1	maternal	death	in	275 births.
1905,	1	,,	,,	,,	237 ,,
1906,	1	,,	,,	,,	169 ,,
1907,	1	,,	,,	,,	191 ,,
1908,	1	,,	,,	,,	335 ,,
1909,	1	,,	,,	,,	185 ,,
1910,	1	,,	,,	,,	221 ,,
1911,	1	,,	,,	,,	382 ,,
1912,	1	,,	,,	,,	243 ,,
1913,	1	,,	,,	,,	240 ,,

Deaths due to Accident and Negligence, and Violent Deaths other than Suicide.—The deaths in this City during 1913 referred to various forms of violence (exclusive of suicide) were 117 in number, 79 of males and 38 of females. The total for 1912 was 107, and this was made up of 71 male and 36 female deaths. The successive totals in each of the 5 years ending with 1911, were 123, 135, 98, 103, and 114, and the annual average of the decennium ending with 1906 was 112.

A list of the local deaths ascribed to violence, made out according to age, sex, and manner of death, will be found in Table III, pp. 8 to 16 ante.

Among the more prominent items, I may once more call attention to the deaths in vehicular traffic, and those (of infants) due to overlying in bed. The first were 10 in number only, as against 20 and 14 in the two preceding years, and this, notwithstanding the extension of motor traffic and the still growing speed of motor vehicles. The second (26 deaths of infants from overlying in bed) is a most disappointing item, for it shows an advance as compared with the records of the two preceding years (23 and 22, respectively), and this, in spite of the instruction given at and in connection with our Mothers' and Babies' Welcomes, as to the impropriety and risk of putting infants to bed with adults.

Suicide was returned by the Coroner's jury as the mode of death in 31 cases during 1913, 20 of males and 11 of females. The proportion of females is somewhat higher than that of last year, when it was as 4 (females) to 13 (males). In England and Wales, during 1912, the latest year for which the figures are given, the male suicides were 2,706 in number, and the female 902. These figures exactly bear out the correctness of the ratio commonly given for the whole country, viz., 3 m. : 1 f.

The Registrar-General, in his Annual Summary for 1913, gives the total number of deaths from violence in Nottingham during that year as amounting to 131. No particulars are furnished, so that I am unable to compare the two returns in detail, but I can speak to the accuracy of my figures, compiled, as they were, directly from the death returns.

The death-rate per 1,000 to which my total of 117 corresponds is 0·44 (44 per 100,000), while the 131 of the Registrar-General represents a rate of 0·49 (49 per 100,000). According to the Registrar-General, the death-rates per 1,000 from violence in Nottingham during each of the preceding 3 years were, 0·46, 0·53, and 0·49.

During 1913, the death-rate per 1,000 from violence, as given by the Registrar-General, was 0·53 in England and Wales, 0·56 in London, 0·52 in the 96 great towns, 0·44 in the 145 smaller towns, and 0·58 in England and Wales less the 241 towns.

Deaths in Public Institutions. — These numbered 850 according to my returns, and 848 according to those of the Registrar-General. The totals for the 3 years ending with 1912 were, respectively, 815, 935, and 862.

The 850 deaths in public institutions in Nottingham were equal to 22·0 per cent. of all deaths. The corresponding proportion was 21·2 per cent. in England and Wales, 43·6 per cent. in London, 27·8 per cent. in the great towns, and 14·7 per cent. in the smaller towns.

Uncertified Deaths.—These numbered 8 only, both according to my returns and those of the Registrar-General.

Inquests.—The inquests held by the City Coroner, or his deputy, during the year, upon the bodies of persons belonging to the City, are given by the Registrar-General as 240, and this number is equal to 6·2 per cent. of all deaths. In addition to these inquests upon Nottingham people, however, there were 37 also held by the City Coroner upon persons whose normal place of residence was not in the City. By the addition of these to the 240 mentioned above, we obtain a total of 277 inquests held in the city during the year. The subjects of these 277 inquests were, 174 of them males and 103 females.

The inquests in England and Wales during 1913 were equal to 7·2 per cent., those in London to 10·3 per cent., those in the great towns to 7·9 per cent., and those in the smaller towns to 5·9 per cent. of all deaths in each, respectively.

Chart of Meteorology, Births and Deaths in Nottingham during 1913.—A chart embodying as far as possible the salient statistical and other facts on the above subjects for the past year, which has been prepared under the joint direction of the City Engineer, and myself, upon the plan adopted by us 24 years ago and continued with occasional additions and amendments each year down to the present time, will be found under the cover at the end of the report, except in the abridged copies, from which it is omitted.

THE CITY ISOLATION HOSPITAL AND PHTHISIS SANATORIUM, BASFORD, AND THE SMALL-POX HOSPITAL, BULWELL FOREST, NOTTINGHAM.

The General Isolation Hospital for infectious diseases, and the Tuberculosis Sanatorium, were in full use during 1913, but, owing to the absence of small-pox from the City, the Small-pox Hospital on Bulwell Forest remained closed throughout the year.

Total Number of Cases in Hospital, 1913.

With particulars as to (*a*) Disease, (*b*) Sex of Patients, (*c*) Recoveries, (*d*) Deaths, and (*e*) Duration of Stay. M = Male. F = Female.

Disease.	Remaining at end of 1912.			Admitted during 1913.			Total cases during 1913.	Total cases finally dealt with during 1913	Total deaths during 1913.	Case-mortality % of total cases, 1913.	Days of average residence.		Remaining at end of 1913.
	No. of Patients.	Recovered.	Died.	No. of Patients.	Recovered.	Died.					Non-fatal	Fatal.	
Scarlet Fever	M. 44	44	..	265	189	5	309	238	5	..	..	..	71
	F. 41	41	..	264	203	7	305	251	7	..	..	..	54
Totals ..	85	85	..	529	392	12	614	489	12	2·4	53·7	11·1	125
Enteric Fever	M. ..	..	..	8	7	1	8	8	1	..	..	..	..
	F. ..	..	..	6	5	1	6	6	1	..	..	..	..
Totals ..	..	..	..	14	12	2	14	14	2	14·3	51·1	13·5	..
Diphtheria ..	M. 15	15	..	100	79	8	115	102	8	..	..	..	13
	F. 9	9	..	137	107	16	146	132	16	..	..	..	14
Totals ..	24	24	..	237	186	24	261	234	24	10·2	40·4	6·1	27
Phthisis ..	M. 33	30	3	112	87	2	145	122	5	..	..	..	23
	F. 16	16	..	66	44	3	82	63	3	..	..	..	19
Totals ..	49	46	3	178	131	5	227	185	8	4·3	77·5	81·8	42
Other Cases ..	M. 2	2	..	16	14	2	18	18	2	..	..	..	..
	F. 1	1	..	36	34	2	37	37	2	..	..	..	..
Totals ..	3	3	..	52	48	4	55	55	4	7·2	23·9	6·5	..
Totals	161	158	3	1010	769	47	1171	977	50	5·1	49·3	23·8	194

In the appended table will be found set out, (*a*) the numbers of cases of the principal, and of incidental, diseases, admitted and discharged during the year, (*b*) the numbers of each remaining at the close of 1912 and 1913, respectively, (*c*) the numbers of recoveries and deaths, and (*d*) the average period of residence in hospital in each class.

The total number of patients admitted to the wards in the course of the year was 1,010. The numbers admitted during each of the immediately preceding 5 years were as follows: in 1908, 718; in 1909, 914; in 1910, 746; in 1911, 676; and in 1912, 866.

One hundred and sixty-one patients were in the hospital wards at the close of 1912: 85 with scarlet fever, 24 with diphtheria, 49 with phthisis, and 3 with other (incidental) complaints. There were 3 deaths among these, all from phthisis. One hundred and fifty-eight, or 98·13 per cent., of these, therefore, left the hospital alive, and most of them in good health or in progress towards it.

The 1,010 patients admitted during the year were sent in for the following diseases, and in the following numbers:—for scarlet fever, 529; for enteric fever, 14; for diphtheria, 237; for phthisis, 178; and for other incidental complaints, 52. Among the patients admitted during the year there were 47 deaths, 12 of the scarlet fever patients, 2 of the enteric fever, 24 of the diphtheria, 5 of the phthisis, and 4 of those with incidental complaints. Nine hundred and sixty-three of these patients, or 95·4 per cent., left the hospital alive, and the majority were making, or had made, a good recovery.

One hundred and ninety-four patients remained in hospital at the end of 1913, 125 with scarlet fever, 27 with diphtheria, and 42 with phthisis. The further history of these cases will be given in the report for 1914.

The following is a list of the so-called "other cases" sent in during 1913, for the most part under erroneous certificate of diagnosis, which serve to illustrate some of the difficulties attending the management of an isolation hospital. Such cases to a large extent require to be isolated and nursed apart, alike in their own interests and those of other inmates, and frequently tax the resources of the institution, both with regard to accommodation and treatment, to an extent altogether disproportionate to their own importance.

Table of "Other Cases" admitted during 1913.*

11 Tonsillitis, 3 wrongly certified as Scarlet Fever.
2 wrongly certified as Diphtheria.
7 Measles, 5 wrongly certified as Scarlet Fever.
4 Acute Pneumonia, 2 wrongly certified as Diphtheria.
1 wrongly certified as Scarlet Fever.
1 wrongly certified as Enteric Fever.
4 Influenza, 1 wrongly certified as Scarlet Fever.
4 Enteritis, 3 wrongly certified as Enteric Fever.
3 German Measles, wrongly certified as Scarlet Fever.
2 Prepatellar Bursitis.
1 Tuberculous Pleurisy with Effusion, wrongly certified as Enteric Fever.
1 Tuberculous Peritonitis, wrongly certified as Enteric Fever.
1 Measles and Scarlet Fever.
1 Chicken-pox.
1 Secondary Syphilis, wrongly certified as Small-pox.
1 Marasmus, wrongly certified as Scarlet Fever.
1 Imbecility, wrongly certified as Scarlet Fever.
1 Nil, wrongly certified as Scarlet Fever.
1 Laryngismus Stridulus, wrongly certified as Diphtheria.
1 Septic Sores, wrongly certified as Diphtheria.
1 Intussusception, wrongly certified as Scarlet Fever.
1 Pharyngitis, wrongly certified as Scarlet Fever.
1 Acute Pleurisy.
1 Aortic Incompetence and Broncho-pneumonia.
1 Angio-neurotic Oedema.
1 Sprained Ankle.
1 Empyæma, wrongly certified as Scarlet Fever.

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* Twelve nurses and 9 ward-maids were admitted to the wards as patients during the year. Three of the nurses were suffering from Scarlet Fever, 2 from Diphtheria, 3 from Tonsillitis, 2 from Influenza, 1 from Aortic Incompetence and Broncho-pneumonia, and 1 from Acute Pleurisy. Of the maids admitted, 1 had Scarlet Fever, 3 had Tonsillitis, 2 had Prepatellar Bursitis, 1 had Influenza, 1 had Angio-neurotic Oedema, and 1 had Sprained Ankle.

The two tables next ensuing show the numbers of cases of different diseases admitted during each month of the year, and the maximum and minimum numbers of beds occupied in each month. Owing to a sudden influx of cases of one disease, and perhaps of one sex of patients, the accommodation of some part or parts of the hospital is frequently taxed in a high degree, while that of other parts remains ample for all purposes.

Table showing monthly admissions of Cases of Scarlet Fever, Enteric Fever, Diphtheria and Phthisis, and "Other Cases," together with the monthly numbers of return cases of Scarlet Fever during 1913.

Months.	Cases Admitted.						Return Cases of Scarlet Fever.
	Scarlet Fever.	Enteric Fever.	Diphtheria.	Small-pox.	Phthisis	Other Cases.	
January ..	46	..	14	..	10	3	3
February ..	30	..	9	..	11	2	..
March ..	38	2	6	..	15	3	1
April ..	34	1	11	..	19	8	..
May	34	1	20	..	16	2	..
June ..	36	..	13	..	13	8	..
July	35	1	32	..	14	5	1
August ..	37	1	26	..	21	7	..
September ..	58	2	28	..	15	3	1
October ..	32	3	32	..	16	3	..
November ..	66	3	21	..	12	6	..
December ..	83	..	25	..	16	2	1
Totals	529	14	237	..	178	52	7

Table showing the number of Beds occupied during each month of the year 1913.

Month.	Beds Occupied.		Month.	Beds Occupied.	
	Highest.	Lowest.		Highest.	Lowest.
January	150	147	July	140	117
February	137	126	August	151	137
March	127	114	September ..	159	152
April	122	109	October	164	154
May	135	126	November ..	151	142
June	132	113	December	194	162

SCARLET FEVER.

The 529 cases of scarlet fever admitted to the hospital during 1913 amounted to 53·6 per cent. of all the known cases. During the 5 years, 1908-1912, the proportions of all known cases admitted were, respectively, as follows: 52 per cent., 54 per cent., 60 per cent., 54 per cent., and 48·4 per cent.

The total case-mortality among the 489 patients disposed of during 1913, as distinguished from those remaining in hospital at the end of the year, was equal to 2·4 per cent., 2·1 per cent. for the 238 male patients, and 2·8 per cent. for the 251 female. The case-mortality among those nursed at home was equal to only 1 per cent. The higher mortality of the hospital is due to the fact that a large majority of the more serious cases are sent to that institution.

The total case-mortality of the hospital during each of the preceding 5 years was as follows: 1908, 3·25 per cent., 1909, 1·27 per cent., 1910, 2·20 per cent., 1911, 2·55 per cent., 1912, 3·1 per cent. The case-death-rate of 1913, therefore, corresponded almost exactly with the average rate of the preceding 5 years (2·45).

Particulars are given in the accompanying tables of the age and sex of patients, of recoveries and deaths, of case-mortality, of immediate death-causes of each sex at various age-periods, and of the complications affecting patients and the numbers and proportions affected with each.

The return cases (or cases occurring in houses to which hospital cases returned, on discharge from hospital, within 21 days of their discharge) which came to my knowledge were 7 in number. These cases apparently derived their infection from 5 patients, discharged, respectively, in January, March, July, September, and December. These "return cases"

Age and Sex Distribution of Non-fatal and Fatal Cases of Undoubted Scarlet Fever under treatment in Hospital during 1913, exclusive of those remaining at the close of the year, but inclusive of those carried over from 1912.

AGE PERIODS.	MALES.		FEMALES.	
	Recoveries.	Deaths.	Recoveries.	Deaths.
Under 1 year	..	..	3	1
Between 1 and 2 years	2	..	4	1
„ 2 and 3 „	9	1	8	2
„ 3 and 4 „	14	..	22	..
„ 4 and 5 „	18	1	21	1
„ 5 and 10 „	115	2	99	2
„ 10 and 15 „	48	..	51	..
„ 15 and 20 „	11	1	13	..
„ 20 and 25 „	5	..	9	..
„ 25 and 30 „	3	..	6	..
„ 30 and 35 „	4	..	4	..
„ 35 and 40 „	3	..	1	..
Over 40 years	1	..	3	..
TOTALS	233	5	244	7

TOTAL CASES, 489; deaths, 12; *case-mortality*, 2·4%.

MALE CASES, 238; deaths, 5; *case-mortality*, 2·1%.

FEMALE CASES, 251; deaths, 7; *case-mortality*, 2·8%.

Above cases constituted as follows:—

85 left over from 1912
529 admitted during 1913

614
125 left over for 1914

489 of definite issue during 1913.

Actual Age at Death, and Death-Cause in each Fatal Case.

MALES (5).

1 aged 2 years ..Toxæmia.
1 „ 4 „ ..Toxæmia.
1 „ 6 „ ..Toxæmia.
1 „ 8 „ ..Bronchitis.
1 „ 17 „ ..Mastoiditis and Meningitis.

FEMALES (7).

1 aged 11 months..Toxæmia.
1 „ 1 year ..Toxæmia.
1 „ 2 „ ..Toxæmia.
1 „ 4 „ ..Broncho-pneumonia
1 „ 6 „ ..Meningitis.
1 „ 7 „ ..Toxæmia.
1 „ 11 „ ..Toxæmia.

were in the proportion of 1·43 per cent. of all cases sent out from the hospital during the year. The corresponding proportions in each of the preceding 5 years were as follows: 1908, 2·27 per cent.; 1909, 2·56 per cent.; 1910, 2·6 per cent.; 1911, 0·7 per cent.; 1912, 2·86 per cent.

Complications among Scarlet Fever Cases during 1913.

Complications.	Cases affected.	Percentage of all Cases.
Nephritis	13	2·6
Albuminuria	36	7·3
Otorrhœa	43	8·8
Rhinorrhœa	50	10·2
Second attack	20	4·1
Cervical Abscess	9	1·8
Arthralgia	6	1·2
Mastoiditis	2	0·4
Meningitis	2	0·4
Broncho-Pneumonia	4	0·8
Bronchitis	1	0·2
Whooping-Cough	7	1·4
Chicken-Pox	7	1·4
Measles	3	0·6
Diphtheria	1	0·2

ENTERIC FEVER.

Fourteen cases of enteric fever were admitted to the hospital during the year. There was no case in the wards at the end of 1912, nor was any left over at the close of 1913.

The total number of cases notified during the year was only 36, and 2 of these were of very doubtful diagnosis, so that the admissions to hospital amounted to 40 or 41 per cent. of all cases.

In the section of this report devoted to enteric fever in its endemic and epidemic aspects, pp. 59 to 70 will be found a full account of the behaviour of the disease in Nottingham, and to some extent in other

places, during 1913 and other recent years. I shall here, therefore, refer only to a few salient facts. The 34 or 36 known cases in 1913 were the lowest annual total on record, the highest being 613 in 1899. Improved methods of public scavenging have doubtless had much to do with the reduction of enteric fever in Nottingham and other large urban centres in recent years.

There is no disease for which good nursing and careful treatment, preferably in hospital, is more desirable, alike in the interests of the patients and the public, than enteric fever, and it has been our aim in recent years to secure institutional treatment for all poor cases of this disease. The General Hospital, and the City Isolation Hospital, have shared the responsibility for providing the necessary accommodation, the isolation hospital usually taking the larger share.

The extent to which enteric fever is liable to spread when nursed in poor dwellings, may be gathered from the fact that members of the staffs of hospitals to which enteric fever cases are admitted in any considerable numbers invariably suffer to some extent from the disease, and often to a very serious extent. At one time, this was thought to be due to defects of drainage in these institutions: it is now known to be caused by the ingestion of the infected discharges of patients (e.g., urine and fæces).

As illustrating the advantage to the patient of good hospital nursing and treatment for enteric fever, I may point out that there were 2 deaths only among the 14 cases dealt with at the isolation hospital during the year (giving a case-mortality of 14·3 per cent.), whereas there were no less than 6 deaths among the 20 cases nursed at home (giving a case-death-rate of 30 per cent.). Although the numbers are small, it is quite fair to make this comparison, because it is less

possible to discriminate between the types of cases at an early stage in enteric fever (i.e., at the stage when the question of home or hospital nursing is commonly decided) than in other acute fevers, and therefore it is usually the home circumstances, rather than the character of the case, which determines whether the latter shall be nursed at home or in hospital.

I may mention here that, although the general case-mortality of enteric fever has apparently been rising throughout England and Wales, with the decline of its prevalence the converse of this rule has been recorded in many large public institutions admitting enteric fever cases. The average case-mortality in several of these has recently been given as approximately 15 per cent., a figure fractionally higher than our own for 1913.

Full details of the age and sex of non-fatal and fatal cases, and of the case-mortality of both sexes and each sex, are given in the accompanying table.

Age and Sex Distribution of Cases of Enteric Fever under treatment in Hospital during 1913.

Ages.	Males.		Females.	
	Recovered.	Died.	Recovered.	Died.
Between 5 and 10 years	..	..	1	..
„ 10 „ 15 „	2	..	1	..
„ 15 „ 20 „	2	1	1	..
„ 20 „ 25 „	..	..	..	1
„ 25 „ 30 „	2	..	..	..
„ 35 „ 40 „	..	..	1	..
Over 40 years	1	..	1	..
Totals ..	7	1	5	1

Total Cases, 14.—Deaths, 2. *Case-mortality*, 14·3%.

Male Cases, 8.—Deaths, 1. *Case-mortality*, 12·5%.

Female Cases, 6.—Deaths, 1. *Case-mortality*, 16·6%.

The above 14 cases were admitted and discharged or died during 1913.

None remained at the end of 1912, and none was left over to 1914.

In the fatal cases death was due to acute double Lobar-pneumonia in one, and Pulmonary Phthisis in the other.

HTHERIA. The 237 cases of diphtheria admitted to hospital during 1913 constituted 55 per cent. of all known cases. The corresponding proportions of admissions during the five preceding years were as follows: 1908, 57 per cent., 1909, 47·5 per cent., 1910, 57 per cent., 1911, 64 per cent., 1912, 46·1 per cent. If we add to the cases admitted during 1913 those left in the wards at the end of 1912, 24 in number, and subtract those remaining at the end of 1913, 27 in number, we obtain a total of 234 cases finally dealt with during the year.

The subject of diphtheria in its epidemic aspect is dealt with on pp. 52 to 56 in the body of this report. The tables accompanying this section give full statistical particulars of the hospital cases, including the amounts of antitoxin administered, the number, age, and sex of patients upon whom tracheotomy was performed and the result of the operation (in recovery or death), and also the complications among cases and the proportions of the latter affected by each complication.

Although I have already referred to the neglect of diphtheria antitoxin, I feel constrained to mention once again that the serum is given away without charge at the Health Department, in the Guildhall, to medical men in charge of poor patients requiring it, and yet that a very large number of cases, many of them very severe cases, of diphtheria sent to us at the Isolation Hospital have not received the serum before they reach us. It has been conclusively demonstrated that this treatment is a true specific for the disease if administered sufficiently early, but that its potency for good diminishes rapidly with every day allowed to elapse between the onset of the disease and the time of its administration. These facts being generally known, it is difficult to understand the neglect of the remedy in so large a number of cases.

Age and Sex Distribution of Cases of Diphtheria under treatment during 1913, including those left over from 1912, but excluding those remaining at end of 1913.

Ages.	Males.		Females.		Monthly Admissions.
	Recovered.	Died.	Recovered.	Died.	
Between 1 and 2 years	1	2	1	1	Jan. 14
" 2 and 3 "	1	..	2	..	Feb. 9
" 3 and 4 "	10	1	6	1	March 6
" 4 and 5 "	10	..	8	3	April 11
" 5 and 10 "	49	3	49	7	May 20
" 10 and 15 "	15	1	19	4	June 13
" 15 and 20 "	5	..	16	..	July 32
Over 20 years ..	3	1	15	..	Aug. 26
					Sept. 28
					Oct. 32
					Nov. 21
					Dec. 25
Totals	94	8	116	16	237 whole year.

Total Cases, 234.—Deaths, 24. *Case-mortality*, 10·2 %.
Male Cases, 102.—Deaths, 8. *Case-mortality*, 7·8 %.
Female Cases, 132.—Deaths, 16. *Case-mortality*, 12·1 %.

The 234 cases are made up of—

24 remaining at end of 1912.
237 admitted in 1913.

261
27 left over at end of 1913.

234 finally dealt with during the year.

Causes of Death.—Toxæmia, 14 ; Cardiac Failure, 8; Paralysis of Diaphragm and Heart, 1 ; Broncho-pneumonia, 1.

ANTITOXIN.

237 cases admitted :—

186 recovered; of these 167 had 932,000 units of antitoxin, or an average of 5,580 per case.
24 died; of these 20 had 160,000 units, or an average of 8,000 per case.
27 carried over into 1914.

TRACHEOTOMIES.

F.	1	aged 1 year.	Died.
	1	" 3 years	Recovered.
	2	" 4 "	Died.
	1	" 5 "	Recovered.
	2	" 5 "	Died.
M.	1	" 1 year.	Recovered.
	1	" 1 "	Died.
	4	" 3 years	Recovered.
	2	" 4 "	"
	1	" 5 "	"
	1	" 6 "	"

Complications among Diphtheria Cases.

Name of Complication.	No. of Cases.	Percentage of all Cases.
Palatal Paralysis	15	6·4
Laryngeal Diphtheria (without operation) ..	6	2·5
Nephritis	1	0·4
Otorrhœa	8	3·4
Rhinorrhœa	9	3·8
Dilatation of Heart	3	1·3
Broncho-pneumonia	3	1·3
Ocular Paralysis	2	0·8
Diaphragmatic Paralysis..	2	0·8
Scarlet Fever (concurrent)	5	2·1
Whooping-Cough (concurrent)	1	0·4

PHTHISIS AND SANATORIUM TREATMENT

The phthisical patients remaining in the Sanatorium at the end of 1912 were 49 in number. Of these, 3 died and 46 left the institution alive. Those admitted during the year numbered 178. Of these, 5 died, 131 left the institution alive, and 42 remained under treatment at the end of the year.

Full particulars of these cases are furnished in the accompanying tables.

Treatment with tuberculin has been confined to Sanatorium patients, some 25 per cent. of whom have been so treated. The preparation employed has been Tuberculin Bouillon Filtrate, Bovine, (P.T.O.).

Dr. J. R. Edward is of opinion that most of the cases selected for this treatment have derived some benefit from its use, but it cannot be too strongly impressed upon all concerned that tuberculin treatment is only capable of assisting those cases in which there is—in popular language—already some power of resistance to the extension of the disease.

Particulars of cases treated at the Tuberculosis Dispensary are furnished in Dr. Edward's special report upon the work done at that institution.

NOTTINGHAM. 1913.—Cases of Phthisis at Municipal Sanatorium.

Name.	Sex.	Age.	Occupation.	Date of Admission.	Number of days in Hospital.	Condition on Admission.	Weight on Admission.	Weight on Discharge.	Condition at present time, or at Date of Discharge, or Ultimate Issue.
							St. lbs.	St. lbs.	
A. P.	F.	37	Clipper and Scolloper ..	4th Jan., 1913	91	Both lungs badly affected ..	7 6½	8 5½	Improved.
A. M.	M.	26	Piecer	4th ,, ,,	61	Both lungs badly ,, ..	11 11½	11 4½	Ransom Sanatorium.
E. L. B.	M.	19	Labourer	7th ,, ,,	91	Both lungs badly ,, ..	7 0½	6 12	In *statu quo*.
H. S.	M.	29	Miner	18th ,, ,,	63	Right lung slightly ,, ..	9 1	9 7½	Improved.
H. C. B.	M.	41	Iron Driller	20th ,, ,,	55	Both lungs badly ,, ..	9 1	9 0½	In *statu quo*.
R. H.	M.	34	Bricklayer	20th ,, ,,	66	Left lung badly ,, ..	8 4	8 13½	In *statu quo*.
G. H. W.	M.	36	Wood Machinist ..	20th ,, ,,	56	No physical signs ..	9 8	10 2½	Improved.
B. M. B.	F.	18	Lace Hand	20th ,, ,,	40	Left lung badly ,, ..	5 12	6 10	Improved.
*L. P.	F.	31	Hosiery Maker-up ..	20th ,, ,,	Still in	Both lungs badly ,, ..	6 7½	..	In *statu quo*.
H. J. G.	M.	50	Pictureframe Maker ..	23rd ,, ,,	56	No physical signs ..	9 6½	10 3½	Improved.
*B. M. L.	M.	28	Platelayer	8th Feb. ,,	158	Left lung badly ,, ..	10 8	10 4	Ransom Sanatorium.
W. S.	M.	32	Carter	8th ,, ,,	42	No physical signs ..	9 4½	9 3	Improved.
N. C.	F.	32	Overlooker in Blouse Fact.	8th ,, ,,	89	Right lung slightly ,, ..	6 2½	6 10½	Improved.
L. K.	F.	27	Pattern Girl	8th ,, ,,	56	Left lung badly ,, ..	7 7	8 1½	Improved.
†G. B.	M.	38	Hosiery Warehouseman	14th ,, ,,	Still in	Left lung badly ,, ..	9 12	..	Improved.
E. W.	M.	39	Carter	22nd ,, ,,	56	No physical signs ..	11 0	11 11	Improved.
E. S.	F.	19	Cotton Sorter	22nd ,, ,,	56	Right lung slightly ,, ..	7 5½	7 10	Improved.
J. B.	M.	38	Brass Finisher	22nd ,, ,,	119	Both lungs badly ,, ..	9 5	10 8½	Improved.
F. S.	M.	49	Shoemaker	22nd ,, ,,	28	Left lung badly ,, ..	7 5	7 9½	Improved.
*A. B.	F.	19	Domestic Servant ..	22nd ,, ,,	268	Left lung slightly ,, ..	9 8½	9 10½	Improved.
S. J. P.	M.	48	Stonemason	24th ,, ,,	117	Both lungs badly ,, ..	9 13	10 10½	Improved.
J. H. K.	M.	24	Hosiery Warehouseman	9th March ,,	90	Right lung slightly ,, ..	9 4½	11 4½	Improved.
J. T. K.	M.	29	Saddler	9th ,, ,,	118	Both lungs slightly ,, ..	8 2	9 6½	Improved.
E. C.	F.	34	Curtain Overlooker ..	10th ,, ,,	89	Right lung slightly ,, ..	7 8½	7 10½	Improved.
L. S.	F.	31	Lace Mender	10th ,, ,,	89	Right lung slightly ,, ..	8 11½	9 6	Improved.
A. T.	M.	35	Machine Comb Man ..	10th ,, ,,	28	No physical signs ,, ..	9 13	10 5½	Improved.
E. B.	F.	37	Hosiery Runner-on ..	10th ,, ,,	89	Left lung slightly ,, ..	7 8½	9 1½	Improved.
F. B.	M.	31	Scientific Instrument Maker	10th ,, ,,	33	No physical signs ..	9 2	9 4	Improved.
R. B.	M.	38	Cutlery Grinder ..	10th ,, ,,	40	No physical signs ..	10 1	11 2½	Improved.
C. E. N.	M.	34	Drug Dealer	10th ,, ,,	40	Right lung badly ,, ..	7 13½	7 13½	In *statu quo*.
†G. S.	M.	32	Miner	14th ,, ,,	79	Both lungs badly ,, ..	..	..	Died.
M. E. C.	F.	26	Lace Mender	15th ,, ,,	91	Both lungs badly ,, ..	7 1½	7 8½	Improved.
M. M.	F.	27	Cotton Winder ..	15th ,, ,,	77	Left lung slightly ,, ..	7 4	7 10	Improved.
A. H. W.	M.	27	Telephone Machinist ..	16th ,, ,,	90	Right lung badly ,, ..	8 6	9 8	Improved.
T. H.	M.	21	Machinist	17th ,, ,,	89	Both lungs slightly ,, ..	8 13½	10 1½	Improved.
R. W.	M.	27	Greengrocer	19th ,, ,,	22	Left lung badly ,, ..	8 13	9 8½	Improved.
A. B.	M.	39	Cotton Winder ..	7th April ,,	28	Both lungs badly ,, ..	..	7 12½	Improved.
S. J.	F.	18	Machinist	7th ,, ,,	42	No physical signs ..	7 13	8 2	Improved.
W. S.	M.	34	Lace Machine Fitter ..	7th ,, ,,	110	Right lung badly ,, ..	9 5½	10 8	Improved.
A. M.	M.	29	Brewer's Assistant ..	7th ,, ,,	28	No physical signs ..	10 9½	11 7½	Improved.
R. M. C.	F.	20	Pattern Girl	7th ,, ,,	89	Right lung badly ,, ..	6 9	7 8½	Improved.
R. H. M.	F.	33	Lace Curtain Designer's As.	7th ,, ,,	110	Both lungs badly ,, ..	5 12½	6 13	Improved.
E. F.	F.	33	Hosiery Turner-off ..	7th ,, ,,	89	Right lung slightly ,, ..	7 0½	7 8½	Improved.
P. B.	F.	27	Nurse	8th ,, ,,	67	Right lung slightly ,, ..	8 3½	8 4½	Improved.
L. A.	F.	17	Laundress	8th ,, ,,	28	Both lungs badly ,, ..	7 6½	7 9	In *statu quo*.

NOTTINGHAM. 1913.—Cases of Phthisis at Municipal Sanatorium—*continued.*

Name.	Sex.	Age.	Occupation.	Date of Admission	Number of days in Hospital.	Condition on Admission.	Weight on Admission	Weight on Discharge.	Condition at present time, or at Date of Discharge, or Ultimate Issue.
							St. lbs.	St. lbs.	
H. B.	M.	42	Dyer's Labourer ..	8th Apr., 1913	88	No physical signs	9 0½	9 10½	Improved.
W. B.	M.	37	Maltster	21st ,, ,,	89	Both lungs badly affected ..	9 1	11 5	Improved.
A. M.	M.	29	Ex-Soldier	22nd ,, ,,	88	Left lung badly ,, ..	10 11½	11 7	Improved.
E. M. W.	F.	16	Cigarette Maker ..	22nd ,, ,,	88	Right lung badly ,, ..	9 2½	9 5½	Improved.
H. F.	F.	34	Housekeeper	22nd ,, ,,	116	Left lung badly ,, ..	8 7	8 8½	Improved.
M. E. S.	F.	27	Domestic Servant ..	22nd ,, ,,	21	No physical signs ..	7 0	7 3	Improved.
G. B.	M.	49	Lace Maker	22nd ,, ,,	53	No physical signs ..	9 12½	11 5½	Improved.
G. W.	F.	23	Lace Mender	22nd ,, ,,	28	No physical signs ..	8 0	8 4	Improved.
M. A. P.	F.	34	Curtain Knitter ..	22nd ,, ,,	74	Right lung slightly ,, ..	6 9	6 12½	Improved.
A. S.	F.	29	Lace Mender	26th ,, ,,	89	Left lung badly ,, ..	6 9½	7 9	Improved.
M. B.	F.	47	Lace Jennier	5th May ,,	89	Both lungs badly ,, ..	4 12½	5 1½	Improved.
V. B.	M.	20	Spindle Repairer ..	5th ,, ,,	89	Left lung badly ,, ..	8 4½	9 4	Improved.
W. J. B.	M.	20	Miner	6th ,, ,,	42	No physical signs ..	9 0½	9 5	Improved.
I. E.	M.	35	Carriage Finisher ..	6th ,, ,,	88	Right lung slightly ,, ..	9 9½	11 9½	Improved.
B. T.	M.	19	Cycle Turner	6th ,, ,,	88	Both lungs slightly ,, ..	9 4	10 11½	Improved.
S. H. A.	M.	20	Brass Moulder	6th ,, ,,	88	Left lung slightly ,, ..	8 13½	10 0½	Improved.
J. H. P.	M.	32	Clerk	6th ,, ,,	74	Both lungs badly ,, ..	9 0	9 1	In *statu quo.*
*W. C.	M.	25	Tobacco Wrapper ..	6th ,, ,,	115	Right lung badly ,, ..	9 3	9 12	Improved.
B. D.	F.	19	Domestic Servant ..	8th ,, ,,	42	Right lung slightly ,, ..	8 3	8 4	In *statu quo.*
W. S.	M.	22	Labourer	19th ,, ,,	89	Left lung badly ,, ..	9 1½	9 8	Improved.
S. C.	M.	29	Labourer	19th ,, ,,	89	Right lung slightly ,, ..	11 0½	11 6	Improved.
E. L. S.	M.	48	Painter	19th ,, ,,	40	Both lungs badly ,, ..	9 4½	9 4	In *statu quo.*
A. E. T.	F.	26	Domestic Servant ..	19th ,, ,,	119	Right lung badly ,, ..	8 0½	8 6	Improved.
A. I.	M.	30	Lift Attendant	20th ,, ,,	65	No physical signs ..	8 2	8 11½	Improved.
H. W. H.	M.	30	Warehouseman ..	20th ,, ,,	116	Left lung badly ,, ..	9 1½	10 4	Improved.
E. S.	M.	42	Plate Layer	20th ,, ,,	25	Right lung slightly ,, ..	9 7½	10 5½	Improved.
†E. Z.	F.	29	Married Woman ..	7th June ,,	106	Both lungs badly ,, ..	6 8	..	Died.
G. R.	M.	43	Plasterer's Labourer ..	9th ,, ,,	50	Both lungs badly ,, ..	9 1	9 8	Improved.
F. G.	F.	23	Cycle Viewer	9th ,, ,,	91	Right lung badly ,, ..	6 10	8 2	Improved.
R. W.	M.	27	Furnaceman	9th ,, ,,	89	Left lung badly ,, ..	9 8½	10 1	Improved.
A. G.	M	23	Miner	10th ,, ,,	25	No physical signs ..	8 12½	9 0½	Improved.
A. E. W.	M.	18	Boot Finisher	10th ,, ,,	91	Both lungs badly ,, ..	8 1	8 7½	Improved.
L. E. A.	F.	25	Machinist	23rd ,, ,,	91	Both lungs badly ,, ..	5 1½	5 5	In *statu quo.*
F. W.	F.	16	Clerk	23rd ,, ,,	117	Left lung badly ,, ..	5 12½	7 3½	Improved.
W. C. P.	M.	37	Lace Maker	23rd ,, ,,	89	Left lung badly ,, ..	8 13½	9 4½	Improved.
W. W.	M.	18	Bleacher's Labourer ..	23rd ,, ,,	89	Left lung slightly ,, ..	8 10½	9 9	Improved.
A. F. S.	M.	24	Dyer's Labourer ..	24th ,, ,,	88	Left lung slightly ,, ..	9 12½	11 3½	Improved.
*J. O.	M.	41	Porter	24th ,, ,,	44	Both lungs badly ,, ..	8 11	8 10½	In *statu quo.*
F. H.	M.	27	Miner	24th ,, ,,	90	Right lung badly ,, ..	9 6½	10 12	Improved.
W. H.	M	23	Miner	8th July ,,	53	Right lung slightly ,, ..	9 0	9 7½	Improved.
G. A. O.	M.	26	Chemist	8th ,, ,,	Still in	Right lung badly ,, ..	9 10	9 9	Improved.
H. N.	M.	46	Painter	8th ,, ,,	88	Left lung badly ,, ..	7 3	7 8	Improved.
A. E. B.	M.	25	Miner	8th ,, ,,	116	Both lungs badly ,, ..	9 8½	10 9	Improved.
S. E. K.	F.	28	Machinist	8th ,, ,,	25	Left lung badly ,, ..	7 0	6 11½	In *statu quo.*
T. S.	M.	36	Carter	9th ,, ,,	17	Right lung slightly ,, ..	11 8	11 11	Improved.

NOTTINGHAM. 1913.—Cases of Phthisis at Municipal Sanatorium—*continued.*

Name.	Sex.	Age.	Occupation.	Date of Admission.	Number of days in Hospital.	Condition on Admission	Weight on Admission.		Weight on Discharge.		Condition at present time, or at Date of Discharge, or Ultimate Issue.
							St.	lbs.	St.	lbs.	
*J. H.	M.	33	Porter	9th July, 1913	68	Right lung badly affected ..	8	3	9	3	Improved.
M. D.	M.	36	Miner	9th ,, ,,	87	Left lung badly ,, ..	9	5	10	1	Improved
†A. F.	M.	16	Painter	19th ,, ,,	91	Left lung badly ,, ..	4	9	4	11½	In *statu quo*
*A. C.	F.	18	Boxmaker	21st ,, ,,	Still in	Both lungs badly ,, ..	5	8	6	4½	Improved.
H. G. H.	M.	19	Painter	21st ,, ,,	61	Left lung badly ,, ..	8	13½	9	3½	Improved.
H. D.	F.	19	Warehouse Worker ..	21st ,, ,,	32	Both lungs badly ,, ..	7	3	7	0½	In *statu quo.*
R. H.	M.	33	Sausage-skin Cleaner ..	22nd ,, ,,	33	Both lungs badly ,, ..	9	2½	9	3	In *statu quo.*
P. L.	F.	23	Machinist	28th ,, ,,	91	No physical signs ..	7	2	7	11	Improved.
F. B.	F.	25	Domestic Servant ..	4th Aug. ,,	42	Left lung slightly ,, ..	6	4½	6	8½	Improved.
L. A. W.	F.	24	Hosiery Examiner ..	5th ,, ,,	79	Left lung badly ,, ..	6	7	7	3	Improved.
E. M.	F.	25	Nurse	5th ,, ,,	39	Right lung slightly ,, ..	9	3½	9	11	Improved.
L. J.	F.	31	Domestic Servant ..	5th ,, ,,	88	Left lung slightly ,, ..	7	4	8	2½	Improved.
W. H. B.	M.	33	Lace Dresser	6th ,, ,,	87	Left lung badly ,, ..	8	7	9	9½	Improved.
D. B.	M.	46	Carter	6th ,, ,,	105	Both lungs badly ,, ..	10	0	10	0½	Improved.
J. H. B.	M.	49	Miner	6th ,, ,,	59	Both lungs slightly ,, ..	9	0	9	13½	Improved.
W. H. R.	M.	38	Warehouseman ..	15th ,, ,,	42	Both lungs badly ,, ..	8	13	9	8½	Improved.
G. P.	M.	38	Cabman	18th ,, ,,	25	Left lung slightly ,, ..	10	11	11	7½	Improved.
H. M.	F.	21	Machinist	18th ,, ,,	89	Right lung badly ,, ..	7	6½	8	9	Improved.
N. D.	F.	27	Machinist	18th ,, ,,	89	Both lungs badly ,, ..	8	10½	9	2	Improved.
N. C.	F.	32	Overlooker	18th ,, ,,	28	Right lung slightly ,, ..	6	3	6	5½	Improved.
J. F.	M.	29	Brewer	18th ,, ,,	89	Left lung badly ,, ..	8	12½	9	7½	Improved.
A. B.	F.	24	Tailoress	19th ,, ,,	Still in	Both lungs badly ,, ..	6	1	7	10	Improved.
P. C.	M.	21	Lace-hand	19th ,, ,,	39	Left lung badly ,, ..	6	10½	7	9	Improved.
J. H.	M.	46	Car Cleaner	19th ,, ,,	67	Both lungs badly ,, ..	11	7½	12	9	Improved.
G. S.	M.	55	Bricklayer's Labourer ..	19th ,, ,,	56	Left lung badly ,, ..	8	8½	10	13½	Improved.
F. N.	F.	26	Machinist	19th ,, ,,	119	Left lung slightly ,, ..	7	4	7	10½	Improved.
†N. P.	F.	33	Married Woman ..	21st ,, ,,	Still in	Both lungs badly ,, ..	6	10	..		Improved.
H. M.	F.	19	Pattern Girl	28th ,, ,,	3	Both lungs badly ,, ..	6	2½	..		Died.
C. D.	F.	52	Machinist	30th ,, ,,	54	Both lungs badly ,, ..	..		..		Died.
†C. B.	F.	27	Married Woman ..	1st Sept. ,,	33	Both lungs badly ,, ..	5	1	5	2	In *statu quo.*
E. S.	M.	27	Fitter	10th ,, ,,	38	Right lung slightly ,, ..	8	1	8	9	Improved.
W. W.	M.	38	Barman	10th ,, ,,	91	Left lung badly ,, ..	9	3½	10	4	Improved.
C. L.	M.	19	Car Cleaner	10th ,, ,,	63	Left lung slightly ,, ..	8	13	10	6	Improved.
H. P.	M.	23	Shop Assistant	11th ,, ,,	70	Left lung slightly ,, ..	10	4½	10	10½	Improved.
E. B.	F.	23	Pattern Girl	11th ,, ,,	119	Right lung badly ,, ..	6	9	7	1½	Improved.
R. A. B.	F.	34	Pattern Girl	11th ,, ,,	119	Left lung slightly ,, ..	6	8½	7	4	Improved.
F. W.	M.	49	Gaswork Labourer ..	11th ,, ,,	65	Right lung badly ,, ..	9	12	9	9	In *statu quo.*
M. A.	F.	25	Slip Winder	13th ,, ,,	42	No physical signs ..	8	1½	9	2½	Improved.
A. G.	M.	43	Lace Maker	16th ,, ,,	28	No physical signs ..	8	2½	8	10	Improved.
T. A.	M.	39	Iron Moulder	23rd ,, ,,	42	Right lung slightly ,, ..	9	0	9	10½	Improved.
E. A. S.	F.	36	Blouse Examiner ..	23rd ,, ,,	39	Both lungs slightly ,, ..	8	8½	9	1½	Improved.
F. B.	M.	39	Jobbing Gardener ..	23rd ,, ,,	88	Both lungs badly ,, ..	7	13½	8	8	Improved.
J. W. B.	M.	17	Electro-plate Polisher ..	23rd ,, ,,	41	No physical signs ..	7	2	7	10	Improved.
E. S.	M.	22	Telephone Mechanic ..	27th ,, ,,	119	Both lungs badly ,, ..	8	3	9	4½	Improved.

NOTTINGHAM. 1913.—Cases of Phthisis at Municipal Sanatorium—*continued.*

Name.	Sex.	Age.	Occupation.	Date of Admission.	Number of days in Hospital.	Condition on Admission.	Weight on Admission.	Weight on Discharge.	Condition at present time, or at Date of Discharge, or Ultimate Issue.
							St. lbs.	St. lbs.	
T. J.	M.	37	French Polisher ..	7th Oct., 1913	39	Both lungs badly affected ..	7 10	7 6½	In *statu quo.*
K. S.	F.	18	Machinist	7th ,, ,,	74	Right lung badly ,, ..	6 2½	6 0½	In *statu quo.*
F. M.	F.	21	Typist	8th ,, ,,	91	Left lung badly ,, ..	6 5	6 13	Improved.
E. B.	F.	31	Machinist	8th ,, ,,	91	Left lung badly ,, ..	7 5½	7 2	In *statu quo.*
H. S.	M.	23	Wood Machinist ..	9th ,, ,,	41	Right lung badly ,, ..	8 11½	9 4	Improved.
C. B.	M.	27	Labourer	9th ,, ,,	25	Right lung slightly ,, ..	8 13½	9 7	Improved.
H. G.	M.	29	Mechanic	14th ,, ,,	119	Right lung badly ,, ..	7 1	7 8	Improved.
K. F.	F.	17	Hosiery Maker-up ..	14th ,, ,,	91	Left lung slightly ,, ..	6 8½	7 3	Improved.
R. B.	M.	21	Miner	15th ,, ,,	91	Left lung slightly ,, ..	9 6½	10 4	Improved.
J. V.	M.	31	Joiner	20th ,, ,,	54	Both lungs badly ,, ..	9 4½	9 8	Improved.
J. S.	M	39	Miner	20th ,, ,,	67	Both lungs slightly ,, ..	9 10½	10 6	Improved.
W. Y.	M.	36	Brass Bobbin Winder..	20th ,, ,,	79	Both lungs badly ,, ..	7 9½	8 0	Improved.
J. H.	M.	33	Office Cleaner	20th ,, ,,	103	Right lung badly ,, ..	8 10½	9 1	Improved.
J. C.	M.	39	Mechanic	22nd ,, ,,	70	Left lung badly ,, ..	10 10	10 12	Improved.
W. C.	M.	25	Tobacco Wrapper ..	22nd ,, ,,	91	Right lung badly ,, ..	9 8½	10 0½	Improved.
J. C.	M.	45	Miner	25th ,, ,,	35	Left lung slightly ,, ..	13 11	14 13	Improved.
M. H.	F.	21	Lace Hand	11th Nov. ,,	91	Right lung badly ,, ..	6 10	7 8½	Improved.
R. L.	F.	17	Machinist	11th ,, ,,	88	Right lung slightly ,, ..	6 10½	7 11	Improved.
F. G.	M.	29	Warehouseman ..	11th ,, ,,	74	Both lungs badly ,, ..	8 9	9 12½	Improved.
F. H. W.	M.	49	Printer's Reader ..	11th ,, ,,	40	Both lungs badly ,, ..	..	..	Died.
†A. C.	F.	47	Married Woman ..	11th ,, ,,	70	Right lung badly ,, ..	6 1	7 0	Improved.
W. P.	M.	24	Lace Dresser	12th ,, ,,	44	Right lung badly ,, ..	8 11½	9 9	Improved.
F. W.	M.	28	Labourer	12th ,, ,,	41	Right lung slightly ,, ..	8 7½	9 2	Improved.
F. R.	M.	26	Tram Driver	12th ,, ,,	87	Both lungs badly ,, ..	10 10	12 7½	Improved.
A. M.	M.	29	Ex-Soldier	24th ,, ,,	40	Left lung badly ,, ..	11 5½	11 6½	Improved.
F. M.	M.	37	Tailor	24th ,, ,,	68	No physical signs ..	8 9	8 13½	Improved.
T. G.	M.	54	Coachman	25th ,, ,,	53	Right lung badly ,, ..	10 2½	10 1	In *statu quo.*
H. B.	M.	28	Miner	28th ,, ,,	91	Right lung slightly ,, ..	9 9	12 0½	Improved.
P. R.	M.	22	Lace Threader ..	8th Dec. ,,	89	Right lung badly ,, ..	7 13½	8 12½	Improved.
W. D.	M.	32	Grocer's Traveller ..	8th ,, ,,	56	No physical signs ..	9 2½	10 0	Improved.
W. H. W.	M.	41	Casting (Metal) ..	8th ,, ,,	54	Left lung slightly ,, ..	9 7½	10 9½	Improved.
S. L.	F.	24	Waitress	8th ,, ,,	Still in	Both lungs badly ,, ..	6 6	..	Improved.
M. C.	F.	34	Machinist	8th ,, ,,	77	Left lung slightly ,, ..	7 5½	8 4½	Improved.
A. S.	F.	17	Cotton Winder.. ..	8th ,, ,,	Still in	Left lung badly ,, ..	7 1½	..	Improved.
S. S.	M.	22	Dyer's Labourer ..	9th ,, ,,	39	No physical signs ..	8 6	9 4½	Improved.
G. W.	F.	18	Boxmaker	9th ,, ,,	Still in	Left lung badly ,, ..	8 4	..	Improved.
N. D.	F.	25	Housemaid	9th ,, ,,	67	No physical signs ..	8 2½	8 8	Improved.
J. M.	M.	29	Clerk	13th ,, ,,	91	Left lung badly ,, ..	8 8½	8 12½	Improved.
J. M.	M.	38	Builder's Labourer ..	22nd ,, ,,	89	Both lungs badly ,, ..	9 9	11 0	Improved.
J. O.	F.	50	Lace Clearer	22nd ,, ,,	40	Both lungs badly ,, ..	6 2½	6 5	In *statu quo.*
L. E.	F.	24	Pattern Girl	23rd ,, ,,	88	Both lungs badly ,, ..	7 1	7 1½	In *statu quo.*
S. M.	M.	18	Brass Turner	27th ,, ,,	29	Left lung badly ,, ..	7 10½	..	Died.
A. W. B.	M.	21	Brass Bobbin Maker ..	27th ,, ,,	42	Left lung slightly ,, ..	6 3½	6 10	Improved.
S. B.	M.	37	Miner	27th ,, ,,	42	Left lung slightly ,, ..	10 3	11 3½	Improved.

* Insured during part of time in Sanatorium. † Uninsured. All others admitted, maintained and discharged as insured persons.

The great majority of the Sanatorium patients are admitted under an agreement with the Nottingham Insurance Committee, by which 29/- per week is paid for the maintenance and treatment of each insured patient at the Sanatorium, but a few are still admitted under the old arrangement by which 10/6 only per week is paid for each patient during residence at the Sanatorium.

I have dealt at some length with the subject of tuberculosis as it affects the community at large, under the heading of "phthisis and other forms of tuberculosis" in the body of this report, pp. 86 to 92 ante, and it is satisfactory to be able to record a continuous decline in the mortality from tuberculous diseases as a result of the vigorous crusade conducted against them in recent years. It should, however, be remembered that the major, and the more important, part of the influence exerted to this end is educational. The medical and other assistance and treatment afforded to the unfortunate victims of tuberculosis is often highly valuable, and, moreover, it appeals to the imagination, but the silent influence of facts brought home to the public mind which ultimately results, and in a progressive manner, in preventing the propagation of the disease, is infinitely more valuable and important.

OPEN-AIR HOSPITAL BLOCKS.

The open-air treatment of scarlet fever and other acute specific fevers, which has been practised at the Nottingham Isolation Hospital for many years, is undoubtedly as beneficial in these diseases as in phthisis; but, as the type of disease is determined by factors altogether independent of and beyond the reach of treatment, and as the type determines to a great extent the incidence of complications and the mortality, it will be understood that the value of this—or, indeed, of any other line of treatment—can hardly be gauged by statistics. As, however, the death-rates and

complication-rates have been almost uniformly as low as, or lower than, contemporary rates elsewhere, and as there has been a remarkable fall in the special complications which are commonly supposed to arise from, or to be aggravated by, exposure, dating from the first introduction of the treatment, we are justified at least in affirming, that statistics, so far as they go, have nothing to say against it. This method of treatment, moreover, has not only met with official recognition from the Local Government Board, and been adopted in other districts of England and Wales, but was approved, and adjudged a special award, at the International Exhibition of Hygiene at Dresden, in 1911.

Owing to the success of this treatment, and its local popularity, it has been recently decided to add four new verandahs to the scarlet fever section of the City Isolation Hospital at Basford.

Dr. John Russell Edward, who was appointed Tuberculosis Officer of the City in February, 1913, in succession to myself, and commenced his duties in that capacity in April, kindly undertook to continue as Resident Medical Officer at the City Isolation Hospital and Sanatorium pending the complete organization of the new Tuberculosis Department, and retained the appointment down to the close of the year.

Miss Julia Taylor continued as Matron of the joint Hospitals and Sanatorium throughout the year, and performed her duties, as before, in a conscientious and satisfactory manner. I regret, however, to say that after a somewhat severe attack of bronchitis (from which she only partially recovered) she succumbed to heart failure on January 31st of 1914.

Miss Taylor was an excellent official, honest and businesslike in all her dealings, and her death was the cause of much sorrow to the members of the hospital staff.

Miss Annie Wragg, who had served as a ward sister and as deputy matron for some 8½ years at the City Isolation Hospital, and who also received part of her early training there, was appointed to succeed Miss Taylor in the matronship.

The following statement of the receipts and expenditure of the hospital and sanatorium during the financial year, April 1st, 1913, to March 31st, 1914, is obtained from the report of the City Treasurer, and speaks for itself without calling for further explanation.

Statement of Expenditure and Receipts of City Isolation Hospital and Sanatorium between April 1st, 1913 and March 31st, 1914, as furnished by the City Treasurer :—

	£	s.	d.
By Salaries and Wages	1,800	10	9
Medicine and Appliances	368	0	1
Dietary	3,506	0	7
Furniture, Fittings and Repairs, etc. ..	767	14	3
Cleaning	184	11	4
Coal, Gas and Water	1,404	5	7
Rates and Insurance	465	4	3
Keeping Grounds and Gardens in order	117	6	10
Printing, Advertising, etc.	37	10	2
Horse Hire, Fodder, Shoeing, etc. ..	24	18	9
Carting Coal, etc...	14	15	0
Repairs to Ambulance Cab, etc. ..	33	3	6
Telephones	156	9	7
Uniforms	87	1	1
Interments	0	18	6
Fares and travelling expenses	16	3	4
New Windows, Fever Block, on account	40	0	0
New Verandah, balance	82	12	3
Contributions under National Insurance Act, 1911	39	17	9
New Verandah and Bathrooms, Yard Ward, on account	235	13	5
Fencing, Planting, etc., Railway Embankment	91	6	10
Expenses *re* Small-pox Cases	13	3	0
Miscellaneous	12	10	5
Total Expenditure	£9,499	17	3
Receipts during the year ..	£3,843	1	11

Handbills, Leaflets, etc.—Leaflet literature, relating to (*a*) the feeding and care of infants, (*b*) the prevention of diarrhœa and cholera, (*c*) vaccination and small-pox, (*d*) the prevention of tuberculous consumption, (*e*) the care of scarlet fever patients discharged from Fever Hospitals, (*f*) the provision of the Shops Acts, 1912-13, and (*g*) the Home Office requirements as regards "sanitary accommodation" in factories, is still distributed, as heretofore, from the various sections of the Health Department.

WORK IN DEPARTMENTS.

Municipal Laboratory of Bacteriology.

—Dr. F. H. Jacob, the City Bacteriologist and Pathologist, made, during 1913, on behalf of the Health Department, the following official investigations, with results specified in each case or group of cases: —

Particulars of Investigation.

	No. of Specimens.
(*a*) In connection with Human Cases of Tuberculosis or suspected Tuberculosis:	
1. Specimens examined for tubercle bacilli, with a positive result	61
2. Do. do. with a negative result ..	282
	343
(*b*) In connection with Human Cases of Diphtheria, or suspected Diphtheria:	
1. Specimens (throat, nose and ear swabs) examined for bacillus diphtheriæ, with a positive result	336
2. Do. do. with a negative result ..	1,724
	2,060
(*c*) In connection with Human Cases of Enteric Fever, or suspected Enteric Fever:	
Widal's reaction—	
1. Positive result	7
2. Negative result	44
3. Partial reactions	2
	53

(*d*) In connection with suspected Tuberculosis in Milch Cows:	No. of Specimens.
1. Milk examined with a positive result ..	—
2. Do. do. do. negative result ..	3
	3

2 samples of Mussels were examined:

Bacillus coli, streptococci, and B. enteritidis sporogenes, found in	1
Bacillus coli, and B. enteritidis sporogenes, found in	1
	2

As in former years, a large amount of unofficial pathological investigation was carried out at the laboratory during 1913.

Disinfecting Department.—There was a considerable increase in the aggregate amount of work done by this department during 1913 as compared with the preceding year. It is, of course, obvious that the amount of public disinfection required must vary more or less directly with the varying incidence of dangerous infectious disease, for which it is principally practised; but, with the growing public demand for disinfection and cleansing on account of diseases not belonging to this class, and for various other conditions, there is a general tendency for the work to extend. Pneumonia, phthisis, and cancer are types of the diseases in connection with which the popular demand for disinfection is growing, and the verminous state is a condition for which radical cleansing is most frequently required.

It cannot be too generally known that steam disinfection is on the whole the most reliable for articles of clothing, and the like, which can appropriately be submitted to the process, but that few articles of clothing can be thoroughly disinfected by this agent without risk of a certain amount of damage.

Articles Disinfected at the Public Stations in Nottingham, 1894-1913.

	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
Bedding	2943	10990	8822	4483	7550	22385	14582	12758	13002	13765	14391	11112	18970	12666	12801	13093	13335	14595	14107	15483
Clothing	20579	12652	9012	4768	5554	14605	10517	9403	3785	9707	9268	10527	9548	9634	9668	10406	9676	9314	9795	11820
Furniture and Hangings	1541	1277	2184	1382	2130	2722	2397	3257	4455	2828	3145	2803	2842	3042	3718	3935	3889	4125	4232	4438
Miscellaneous Articles ..	10303	13272	8394	8341	7699	14093	9498	9410	11498	12204	10558	11447	16856	15709	18654	17502	18645	18635	17865	19411
TOTALS	35366	38191	28392	18974	22933	53805	36994	34828	32740	38504	37362	35889	48216	41051	44841	44936	45545	46669	45999	51152

Houses Disinfected, 1903-13.

1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
1977	1891	1243	1466	1075	1192	1432	1189	1220	1522	1561

Persons Cleansed and Disinfected at Public Stations, 1913 58

School Premises Disinfected during 1913 12

Private Houses Disinfected and Cleansed for Phthisis during 1913 98

The accompanying table gives some details of the work done at, or in connection with, the public disinfecting station during the year.

Mr. Harry Ward, Cert.R.San.I., is the chief officer of the disinfecting department.

The Public Mortuaries.—The number of bodies taken to the public mortuaries of the City during the year was 208, the average for each month being fractionally more than 17. The number of male bodies was 119, and of female, 89. The numbers admitted during each of the 3 preceding years, respectively, were 225, 216, and 240. The admissions to the Hyson Green and Bulwell mortuaries were somewhat more numerous than those of 1912, but the Leen Side station was less used than in the latter year.

Number of Bodies, Male and Female, taken into each of the Public Mortuaries during each month of the year 1913.

MONTH.	LEEN SIDE.		HYSON GREEN.		BULWELL.		TOTAL PER MONTH.		TOTAL BOTH SEXES.
	Male Bodies.	Female Bodies.	Male Bodies.	Female Bodies.	Male Bodies.	Female Bodies.	Male Bodies.	Female Bodies.	
JANUARY ..	7	10	3	1	..	..	10	11	21
FEBRUARY ..	2	1	5	5	..	1	7	7	14
MARCH ..	8	5	7	7	..	..	15	12	27
APRIL ..	3	4	7	3	..	..	10	7	17
MAY.. ..	10	1	4	4	..	..	14	5	19
JUNE ..	3	3	1	2	3	..	7	5	12
JULY ..	3	1	3	..	..	..	6	1	7
AUGUST ..	3	..	3	2	2	..	8	2	10
SEPTEMBER	4	7	3	4	..	..	7	11	18
OCTOBER ..	4	5	7	3	1	..	12	8	20
NOVEMBER..	8	3	5	6	1	..	14	9	23
DECEMBER..	7	5	2	6	..	..	9	11	20
TOTALS	62	54	50	43	7	1	119	89	208

Mr. F. W. Franks, Cert.R.San.I., Chief Clerk of the Health Department, is the officer in charge of the mortuaries.

Public Lavatories.—These public conveniences, so far as their number and situation and the amount of their accommodation are concerned, have remained unchanged since 1912.

Their location and description are as follows :—

For Men.—Parliament Street (underground).
Milton Street ,,
Gedling Street.
Shambles.
Carrington Street Bridge.
Trent Bridge.

For Women.—Milton Street (underground).
Gedling Street.
Shambles.
Trent Bridge.

I venture once more to suggest that, in view of the large amount of available open space in the streets of Nottingham, and the superior convenience and lower cost of lavatories above ground as compared with those below, in making any future extension of these conveniences in this City a trial should be given to the Kiosk type of lavatory structure so much in favour on the Continent. One special advantage possessed by this type of lavatory is its mobility—an advantage at once apparent when, as not infrequently happens, the site first chosen is proved by experience to be unsuitable.

The superintendence of the public lavatories is also entrusted to Mr. Franks.

Common Lodging Houses.—The number of these on the City register at the end of 1913 was 66, the same total as twelve months earlier. One small house of 12 mixed beds, in Red Lion Street, was closed, and one large house of 241 men's beds (an adapted factory), in Longden Street, was opened.

Common Lodging Houses. Situation and No.:—	
In Red Lion Street (and yards opening thereon)	45
„ Millstone Lane	2
„ Canal Street and Leen Side	4
„ Main Street, Bulwell	1
„ Portland Place, Coalpit Lane	1
„ Washington Street..	1
„ Popham Street	1
„ Cherry Street	2
„ Clare Street..	1
„ Peel Street	1
„ Pear Street	1
„ Cross Street	1
„ Sneinton Road	1
„ Aberdeen Street	1
„ Nile Street..	1
„ Barker Gate	1
„ Longden Street	1
	66

An application to open a disused public-house in Moorgate Street, Radford, as a common lodging house, was refused.

Two transfers of keepership were applied for, but one only was sanctioned.

The walls and ceilings of all the houses were lime-washed in April and October, as required by Section 82 of the Public Health Act, 1875.

The total number of available beds in these houses at the close of the year was 1,580. The single beds numbered 1,518, and the double, 62. Both together were capable of accommodating 1,642 persons.

I have frequently condemned the use of double beds in these houses, but I feel constrained to do so once more, and to explain that my reason for doing so is that the houses in which they are provided are little better than low-class brothels. They offer encouragement to immorality among a class in which the tendency to laxity of morals is already strongly pronounced, and in which the influences for good are chiefly conspicuous by their absence. Even if these beds may occasionally serve a legitimate purpose, their abolition would cause no serious inconvenience, as the few married tramps that use them could separate for a night without hardship.

Common Lodging Houses, Nottingham, 1913.

Accommodation Data.

Number of Houses.				
	For Males only.	For both Sexes.	Total No. of Houses.	Total No. of Beds.
Houses	38	28	66	..
Beds	1200	380	..	1580

	No. of Houses.	Bed Capacity of Houses.									
		Less than 10 beds.	10 to 20.	21 to 30.	31 to 40.	41 to 50.	51 to 60.	61 to 70.	71 to 80.	160 beds.	241 beds.
Houses on Register, 1912	66	8	32	16	5	3	..	..	1	1	..
Houses opened	1	..	..	..	..	..	..	..	..	..	1
Houses closed	1	..	1	..	..	..	..	..	..	..	..
Houses on Register at end of 1913	66	8	31	16	5	3	..	..	1	1	1

Total Bed Accommodation in these 66 Common Lodging Houses = 1,642.

As I have also stated in previous reports, a large part of our single beds in these common lodging houses could be abolished with advantage to the City. They harbour a class of idle homeless wanderers, who, in the absence of cheap hostels, would go elsewhere, and the City would be better without them.

The Corporation Lodging House for Women was given up in 1909, because it was found to be serving principally as a home of rest for immoral women. The Corporation Common Lodging House for Men is about to be closed, because it has been felt that it is hopelessly behind the times in its present condition, and that without very large expenditure and careful management, it cannot hope to compete successfully with private enterprise, or that of other public bodies like the Church Army and the Salvation Army, in this line of business, and also because it was felt that so long as other agencies could be trusted to make what provision of this character is necessary or desirable in a satisfactory manner, the Corporation were under no special obligation to do so.

Corporation Lodging House.

Situation of lodging-house.	No. of beds.	No. of Lodgers admitted in each of the years.									
		1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
Popham Street (Men only).	28	8,821	8,798	8,754	7,833	7,096	7,084	6,526	6,802	6,375	6,289

Mr. G. A. Read, Cert.R.San.I., 2nd Clerk of the Health Department, is the Inspector of Common Lodging Houses and of Houses-let-in-Lodgings.

Houses-Let-in-Lodgings.—The number of multiple tenement houses on the City register is now 19, and these have all been brought into a state representing reasonable compliance with the By-laws. Owing to the fact that single furnished houses cannot be dealt with under the By-laws for houses-let-in-lodgings, many of the good results which were looked

for from the operation of these By-laws, at the time of their adoption, have not been realized. But, as many of the "single furnished houses" were unfit for habitation, it has been found possible to deal with them and secure their rehabilitation or demolition under the Housing of the Working Classes Acts.

All the tenement houses on the register were cleaned throughout and limewashed both in April and October.

Housing of the Working Classes Acts, 1890 to 1909.—The numbers and situation of the houses represented by myself to the Housing Committee as unfit for habitation, or as obstructive to the ventilation or other sanitary requirements of adjacent buildings, with the action taken thereon and the work done, if any such have followed, during the period of 12 calendar months between April 1st, 1913, and March 31st, 1914, are given in detail below :—

NUMBERS OF HOUSES DEALT WITH IN VARIOUS WAYS, AND OF ACTIONS TAKEN.

Number of houses represented by Medical Officer of Health independently	309
Number of houses in case of which no action to be taken	21
Number of houses made fit for human habitation	56
Number of houses made fit for human habitation (without Closing Orders)	16
Number of houses demolished	143
Number of houses closed or demolished voluntarily (without Closing Orders)	2
Number of Closing Orders	247
Number of houses demolished without Demolition Orders	17
Number of Demolition Orders	139
Number of Appeals	13

SITUATION OF HOUSES REPRESENTED AND NUMBERS IN EACH SITUATION.

SITUATION.	NO. OF HOUSES.
Nos. 1, 2, 3, and 4, Coalpit Court, Coalpit Lane	4
Nos. 1, 2, 3, 4, 7, 8, and 9, Angle Yard, Plumptre Street	7
Nos. 4, 5, 6, 7, and 8, Mapperley Yard, Woolpack Lane	5
No. 56, Woolpack Lane	1
Nos. 26 and 28, Chesterfield Street	2
Nos. 9, 11, 13, 15, 17, 19, and 21, Preston Street, Lenton	7
Nos. 1, 2, 3, 4, 5A, 6, 7, and 8, Agar Terrace, Rock Street, Bulwell	8
Nos. 1, 2, 3, 5, 5A, and 9A, Main Street, Bulwell	6
Nos. 3, 5, 7, 9, and 11, Brockclose Yard, Main Street, Bulwell	5
No. 114, Coventry Road, Bulwell	1
Two unnumbered houses at the rear of Nos. 213 and 215, Main Street, Bulwell	2
Nos. 279, 281, and 283, Main Street, Bulwell	3
No. 1, Hazel Street, Bulwell	1
Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10, Chapel Row, Hazel Street, Bulwell	10
Nos. 1, 2, 3, 4, 5, and 6, Helmet Yard, Hazel Street, Bulwell	6
Two unnumbered houses in Coalpit Court, Goose Gate	2
Nos. 17, Drake Street, 14, Colwick Street, and 22, Charles Street	3
Nos. 6 and 7, Gough Yard, Robinson's Hill, Bulwell	2
Nos. 1, 2, 3, and 4, Shipstone's Yard, Main Street, Bulwell	4
Nos. 1, 3, 5, and 7, Quarry Place, Main Street, Bulwell	4
Nos. 1, 2, and 3, Mulberry Terrace, Crown Street, Bulwell	3
Nos 2 and 3, Belgrave Terrace, Bulwell Green, Bulwell	2
Nos. 1, 2, and 3, Gough Yard, Robinson's Hill, Bulwell	3
Nos. 6 and 8, Robinson's Hill, Bulwell	2
Nos. 1, 2, 3, 6, 7, 7A, 8, 8A, 9A, 16, 17, and 18, Chapel Yard, Cross Street	12
Nos. 1 and 2, Bywater's Yard, Holland Street	2
Nos. 1, 2, 3, 4, and 5, James Yard, Western Street	5
Nos. 1, 2, 3, 4, 5, 6, 7, and 8, Oxford Square, De Ligne Street	8
Nos. 15, 17, 19, and 21, De Ligne Street	4
Nos. 1, 3, 5, 7, and 9, Montfort Street	5
Nos. 1, 3, 5, 7, and 9, Greek Square, Montfort Street	5
Nos. 23 and 23A, De Ligne Street	2
Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, and 16, Woodville Place, Bloomsgrove Street	16
Nos. 1, 2, and 3, East Court, East Street	3

Situation.	No. of houses.
Nos. 2, 4, and 6, Maiden Lane, Woolpack Lane	3
Nos. 1, 2, 3, 4, 5, 6, 7, and 8, King's Court, King George Street	8
Nos. 18, 19, 20, 21, 22, and 23, Ledger Yard, Ilkeston Road	6
Nos. 1, 2, 3, 4, 5, 6, 7, and 8, Brick Row, Queen Street, Old Basford	8
Nos. 73, 75, 77, 79, 81, 83, and 85, Mill Street, Old Basford	7
Nos. 11 and 13, King's Arms Yard, Woolpack Lane ..	2
Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 15, and 17, Warren Court, Old Street	14
Nos. 7, 9, 11, and 15, Lea Street	4
Nos. 8, 10, 18, 20, 22, 24, 26, 28, and 30, Brassey Street..	9
No. 7, Holden Street	1
Nos. 5, 13, 17, 19, 21, 23, 25, 27, 29, and 31, Lea Street..	10
Nos. 6, 12, 14, 16, and 32, Brassey Street	5
Nos. 33, 35, 37, 39, 41, 43, 45, and 47, Lea Street.. ..	8
Nos. 34, 36, 38, 42, 44, 46, and 48, Brassey Street ..	7
No. 40, Brassey Street	1
Nos. 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, and 29, Fleet Place, Red Lion Street	15
No. 110, Red Lion Street	1
No. 47A, Leen Side	1
Nos. 1A, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, and 23, Cross Street	12
Nos. 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, and 26, Fyne Street	12
Nos. 25, 27, 29, 31, 33, 35, 37, 39, 41, and 43, Cross Street	10
Nos. 28, 30, 32, 34, 36, 38, 40, 42, 44, and 46, Fyne Street	10
Total ..	309

Houses not Proceeded with (21).

Nos. 26 and 28, Chesterfield Street	2
Two unnumbered houses at the rear of Nos. 213 and 215, Main Street, Bulwell	2
Nos. 1, 2, and 3, Sun Place, Fairfax Street	3
Nos. 2, Owen's Court, 1, 2, 3, 4, over 5, Count Street, 2, 3, 4, 5, over 7, Count Street, 5 and 7, Count Street, room at rear of No. 7	12
Nos. 2 and 3, Gough Yard, Robinson's Hill, Bulwell ..	2
Total ..	21

HOUSES DEMOLISHED AFTER REPRESENTATION (143).

SITUATION.	NO. OF HOUSES.
Nos. 2, 3, 4, 5, 6, and 7, Blucher Row	6
Nos. 1, 2, 3, 4, 5, and 6, Lyndock Row	6
Nos. 32, 34, 36, and 38, St. Ann's Street	4
Nos. 31, 33, 35, and 37, St. Michael Street	4
Nos. 1, 3, 5, 7, and 9, Apple Row, Milk Street	5
Nos. 9, 11, 13, 15, and 17, Lennox Street	5
Nos. 9, 10, 11, 12, and 13, Cherry Place	5
Nos. 60, 62, 64, 66, 68, and 70, Coalpit Lane	6
No. 6, Tilley's Yard, Drury Hill	1
Nos. 2, 3, 4, and 5, Caunt's Yard, Barker Gate	4
Nos. 5 and 6, Littlewood Place, Windmill Lane	2
Nos. 1, 2, 2A, 3, 4, 5, and 6, Whitchurch's Yard, Count Street	7
Nos. 5, 6, and 7, Angel Alley, Goose Gate	3
Nos. 6, 7, 8, 9, 10, and 11, White Cow Yard, Bellar Gate	6
No. 1, Kelk's Yard, Count Street	1
No. 15, Poplar Street	1
No. 3, Platt Court	1
Nos. 14, 16, 18, and 20, Burke Street, and 6, 7, and 8, Fellow's Yard, Burke Street	7
Nos. 1 and 2, Marriott's Square, Rutland Street	2
Nos. 7, 8, and 9, White Swan Yard, Pelican Passage, Burke Street	3
Nos. 11, Tyler Street, and 12, Pump Street	2
No. 14, Pump Street	1
No. 9A, Fisher Gate	1
No. 10, Bow Street	1
No. 11, Windmill Lane	1
Nos. 1, 2, 3, 4, 5, 6, 7, 8, and 9, Tun's Yard, Ilkeston Road	9
Nos. 4 and 5, White Cow Yard, Bellar Gate	2
Nos. 19, 21, and 23, Lennox Street	3
Nos. 17, 19, 21, 23, 25, 27, and 29, Tyler Street, 18, 20, 22, 24, and 26, Pump Street, and 22 and 24, Colwick Street	14
No. 1, Church Place, Alpine Street, Old Basford	1
No. 1, Priory Square, Abbey Street, Lenton	1
Nos. 2, 3, and 4, Short Stairs	3
Nos. 13, 15, and 17, Church Street, Old Basford	3
Nos. 2, 3, 4, and 5, Church Place, Alpine Street, Old Basford	4
Nos. 5, 7, 9, and 11, Iron Place, Whitemoor Road, Old Basford	4
Nos. 1, 2, and 3, Mosley's Row, High Street, Old Basford	3

Situation.	No. of houses.
Nos. 3, 5, and 7, Hooton Terrace, Castle Street	3
Nos. 6 and 7, Church Place, Alpine Street, Old Basford..	2
Nos. 1 and 2, Wickham Place, Burke Street	2
Nos. 1, 2, 3, and 4, Chamber's Yard, Old Street ..	4
Total ..	143

Obstructive Buildings Removed (2).

Two houses on the North Side of, and next, and next but one, to the entrance to Kelk's Yard	2

Closing Orders (247).

Nos. 1, 3, 5, 7, 9, and 11, Holborn Place, Main Street, Bulwell	6
Nos. 1, 2, 3, and 4, Coalpit Court, Coalpit Lane.. ..	4
Nos. 3, 4, 5, 6, 7, 8, 9, and 10, Ball Yard, 14 and 16, Paradise Row, and 8, Platt Street	11
Nos. 12, 13, 14, and 15, Ball Yard, Coalpit Lane ..	4
Nos. 1, 2, 3, 4, 5, 6, 7, 8, and 9, Charles Terrace, Spring Road, Bulwell	9
Nos. 1, 2, 3, 4, 5, 6, and 7, Blackhorse Yard, Coventry Road, Bulwell, and 8, 10, and 12, Hempshill Lane, Bulwell	10
Nos. 3, 5, 7, 9, and 11, Brockclose Yard, Main Street ..	5
Nos. 1, 2, 3, 4, 5a, 6, 7, and 8, Agar Terrace, Rock Street, Bulwell	8
Bottom house (unnumbered) Coalpit Court, Goose Gate, and bottom house but one (unnumbered) Coalpit Court, Goose Gate	2
Nos. 9, 11, 13, 15, 17, 19, and 21, Preston Street, Lenton..	7
Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10, Chapel Row, Hazel Street, Bulwell	10
Nos. 1, 2, 3, 4, 5, and 6, Helmet Yard, Hazel Street, Bulwell	6
Nos. 1, 6, and 7, Gough Yard, Robinson's Hill, Bulwell..	3
Nos. 1, 2, 3, and 4, Shipstone's Yard, and 1, 3, 5, and 7, Quarry Place, Main Street, Bulwell	8
Nos. 1, 2, and 3, Mulberry Terrace, Crown Street, Bulwell	3
Nos. 5 and 7, Gedling Street..	2
No. 13, Gedling Street..	1
Nos. 1 and 3, Tyler Street, and 2 and 4, Pump Street..	4
Nos. 22, Charles Street, 14, Colwick Street. and 17, Drake Street	3

Situation.	No. of houses.
Nos. 11 and 15, Coldham Street	2
No. 13, Coldham Street	1
Nos. 1 and 2, Bywater's Yard, Holland Street	2
Nos. 1, 3, 5, 7, 9, 17, 19, 21, and 23, Coldham Street ..	9
No. 3, Belgrave Terrace, Bulwell Green, Bulwell ..	1
Nos. 6 and 8, Robinson's Hill, Bulwell	2
Nos. 3, 4, and 5, James Yard, Western Street	3
Nos. 1, 2, 3, 6, 7, 7A, 8, 8A, 9A, 16, 17, and 18, Chapel Yard, Cross Street	12
Nos. 1, 2, and 3, East Court, East Street..	3
Nos. 1, 2, 3, 4, 5, 6, 7, and 8, Oxford Square; Nos. 15, 17, 19, 21, 23, and 23A, De Ligne Street; Nos. 1, 3, 5, 7, and 9, Greek Square, Montfort Street; Nos. 1, 3, 5, 7, and 9, Montfort Street	24
No. 2, Belgrave Terrace, Bulwell Green	1
Nos. 1, 2, 3, 4, 5, 6, 7, and 8, King's Court, King George Street	8
Nos. 4 and 6, Maiden Lane, and 11 and 13, King's Arms Yard, Woolpack Lane	4
Nos. 4, Carlton Court, and 8, Coldham Street	2
Nos. 12, 14, and 16, Coldham Street	3
No. 2, Princess Street	1
Nos. 1, 2, 3, 4, 5, 6, 7, and 8, Brick Row, Queen Street ..	8
Nos. 73, 75, 77, 79, 81, 83, and 85, Mill Street, Old Basford	7
Nos. 2, 4, 6, 8, and 10, Warren Court, Old Street.. ..	5
Nos. 1, 3, 5, 7, 9, 11, 13, 15, and 17, Warren Court, Old Street	9
No. 2, Wool Alley, Barker Gate	1
Nos. 33, 35, 37, 39, 41, 43, 45, and 47, Lea Street.. ..	8
Nos. 34, 36, 38, 40, 42, 44, 46, and 48, Brassey Street ..	8
Nos. 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, and 29, Fleet Place, Red Lion Street	15
No. 110, Red Lion Street	1
No. 47A, Leen Side	1
Total ..	247

Houses demolished without Demolition Orders (17).

Nos. 1, 3, 5, 7, and 9, Apple Row, Milk Street	5
Nos. 5 and 6, Littlewood Place, Windmill Lane	2
No. 1, Kelk's Yard, Count Street (No C.O. made) ..	1
No. 3, Platt Court, Gedling Street	1

Situation.	No. of houses.
Nos. 1 and 2, Marriott's Square, Rutland Street.. ..	2
No. 1, Church Place, Alpine Street, Old Basford.. ..	1
Nos. 7, 9, and 11, Iron Place, Whitemoor Road ..	3
Nos. 1 and 2, Wickham Place, Burke Street	2
Total ..	17

Demolition Orders (made in respect of 139 Houses) not yet Carried Out.

Nos. 39 and 43, Coalpit Lane	2
Nos. 4, 6, and 8, Apple Row, Milk Street..	3
Nos. 10 and 12, Apple Row, Milk Street	2
No. 18, Apple Row, Milk Street	1
Nos. 22 and 26, Apple Yard, Old Street	2
No. 24, Apple Yard, Old Street	1
No. 20, Apple Row, Milk Street	1
Nos. 10A and 12, Thurman's Cottages, Sneinton Dale ..	2
Nos. 19, 21, 23, and 25, Wesley Street, 1 and 2, Nuthall's Yard, Wesley Street, and 16, 18, 20, 22, 24, and 26, Ramsay Street	12
Nos. 3, 4, 5, 6, 6½, 20, 21, 22, and 23, Silverwood Place, and 23 and 25, Bellar Gate	11
Nos. 52 and 54, St. James's Street	2
Nos. 1, 3, 5, 7, and 9, Star Court, St. James's Street ..	5
Nos. 3, 5, 7, 9, 11, and 13, Thoroughfare Yard, St. James's Street	6
Nos. 1, 2, 3, 4, and 5, Earnshaw's Yard, London Road ..	5
Nos. 68 and 70, Whitechapel Street, Old Basford ..	2
Nos. 1, 2, 3, and 4, Pottery Place, Beck Street	4
Nos. 1, 2, 3, 4, 5, and 6, Conyer Terrace, Lloyd Street ..	6
Nos. 1, 3, 5, 7, 9, and 11, Holborn Place, Main Street, Bulwell	6
Nos. 1, 3, 5, and 7, Abbey Square, 16, 18, 20, and 22, Abbey Street, 1, Priory Square, and 3 and 4, Choral Yard, Lenton	11
Nos. 56, 58, and 60, Whitechapel Street, Old Basford ..	3
Nos. 62, 64, and 66, Whitechapel Street, Old Basford ..	3
Nos. 1, 2, 3, 4, 5, 6, 7, 8, and 9, Charles Terrace, Spring Road, Bulwell	9
Nos. 1, 2, 3, 4, 5, 6, and 7, Blackhorse Yard, Coventry Road, Bulwell, and 8, 10, and 12, Hempshill Lane, Bulwell	10
Nos. 1, 2, 3, and 4, Coalpit Court, Coalpit Lane	4

Situation.	No. of houses.
Bottom two houses unnumbered, in Coalpit Court, Goose Gate	2
Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10, Chapel Row, Hazel Street, Bulwell	10
Nos. 1, 2, 3, 4, 5, and 6, Helmet Yard, Hazel Street, Bulwell	6
Nos. 1, 2, 3, 4, 5A, 6, 7, and 8, Agar Terrace, Rock Street, Bulwell	8
Total ..	139

Houses Rendered Habitable without Official Representation (15).

No. 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, and 54, Traffic Street	12
Nos. 36, 38, and 40, Millstone Lane	3
Total ..	15

Houses demolished without Official Representation (7).

Nos. 1, 2, 3, and 4, St. Ann's Alley	4
Nos. 3, 5, and 7, Fisher Gate	3
Total ..	7

House Represented as Obstructive.

No. 11, Angle Yard, Plumptre Street	1

The total number of houses dealt with by the Housing Committee up to the 31st March, 1914, is as follows:—

Represented	1,254
Not proceeded with	55
Purchased by Improvement Committee ..	12
Closing Orders made	885
Rendered habitable	213
Converted	4
Demolished	294
Undergoing repair	83
Pending Lapse of Notice..	593
Courts Opened	2
Obstructive buildings removed	7
Demolished (not represented)	39
Repaired (not represented)	134
Undergoing repair (not represented)	6

The clearance of the Carter-Gate-Manvers-Street Unwholesome Area, in respect of which I made an official representation in writing to the City Council in January of 1912, is now proceeding.

Scheme for Conversion of Pail Closets to W.C.'s, under Subsidy.—This scheme has not proved quite so rapidly successful as its promoters could desire, but the speed of conversion has increased almost continuously from its commencement, in April, 1912, and there can be little doubt that it will proceed more and more rapidly as the poorer sections of the community come to realize by observation and experience the immense superiority of the W.C. to the dry-closet, and, as a natural corollary, to demand a W.C. as one of the minimum requirements of a decent dwelling.

From April, 1912, to December 31st, 1912, 403 pail-closets were converted to W.C.'s, at a cost to the Local Authority, by the payment of a subsidy of £2 10s. per pail-closet converted, of £1,007 10s.

During 1913, 685 closets were converted, at a cost to the Local Authority of £1,712 10s.

The total number of pail-closets converted between April, 1912, when the scheme was passed by the City Council, and December 31st, 1913, was 1,088, and the total amount of money paid or promised in subsidy, £2,720.

At the outset the subsidy was granted only in respect of the conversion of pail-closets attached to houses of a small rental : it is now paid for the conversion of such closets attached to all classes of property.

The Notification of Births Act, 1907, and the "Mothers' and Babies' Welcomes,"

(*a*) at 3, Howard Street, Glasshouse Street, (*b*) at 136, Radford Boulevard (in succession to 109, Alfreton Road), and (*c*) at 148, London Road.

The number of births notified to me under the above Act during 1913 was 4,189, and this number was equal to 68·65 per cent. of the total number of births during the year (6,102). In the three immediately preceding years, the corresponding proportions were, respectively, 71 per cent., 68·2 per cent., and 66·4 per cent.

All the births attended by midwives are regularly and promptly notified, but a large proportion of those attended by medical men are not notified, and this fact is due to the systematic neglect on the part of medical men to perform their legal duty under the Act, in either notifying themselves or informing the father in each case of his obligation to do so. The medical men have been provided with stamped and directed post-cards, upon which the Act requires the notification to be made, and have been informed, by circular, of their duty as prescribed by the Act, but for the simple reason that no fee is payable for the service they refuse to render it. The obvious reason for the non-payment of a fee for the service is that no special skill or knowledge would be exercised in performing it.

The notified births are entered daily in a register kept at the Health Department, but, owing to the fact that more than 30 per cent. of the births are not notified, the register is to that extent an incomplete record of the current births in the City, and loses thereby a large part of its value. The Sub-District Registrars of Births and Deaths, who frequently consult the register, have been greatly disappointed by

the incompleteness of its record, and these officials, and those of the Health Department, would strongly approve the adoption of measures to compel the medical men of the City to perform their legal duty as prescribed by the Act. On the other hand, however, it is satisfactory to be able to state that one of the principal objects of the Act is achieved by the complete and prompt notification of births by the local midwives, as this enables our Health Visitors to reach parturient women and newly-born infants of the class most in need of their services without unnecessary delay.

This last branch of work is, indeed, the basis upon which rests the scheme of the Mothers' and Babies' Welcomes. Without such information as the notification of births affords, and the introduction it gives the Health Visitor to the home, it would be difficult, in the first place, to obtain at all general information about births, and, in the second, to secure admission to the home.

In view of the public attention recently attracted to the Nottingham City Welcomes, and the disposition to open similar establishments in the County of Notts., and elsewhere, I have thought it would be well to print a note on the history, constitution, and past, present, and future work of the Welcomes which I recently wrote for the information of the Health Committee. This note is as follows :—

NOTE ON THE MOTHERS' AND BABIES' WELCOMES OF THE CITY OF NOTTINGHAM.

The Mothers' and Babies' Welcomes, which combine the function of schools for mothers, out-patient clinics for mothers and babies, feeding centres, and centres for the distribution of suitable food for hand-fed infants, were first established in this City during the early part of 1908.

The poor mothers and their infants are first reached by the Health Visitors appointed under the "Notification of Births Act," and are invited to attend at the nearest Welcome station as soon as they are able to leave home after their confinement.

The Health Visitor sows the seeds of useful instruction in the home, but the watering and cultivation is done principally at the Welcome classes, Feeding Centres, and Clinics.

The first centre was that in Howard Street, and the house in which it was established was provided and equipped by the Corporation. In October of 1909 a second centre was opened in Windmill Street, Radford; this was subsequently moved to 109, Alfreton Road, and later (March, 1914) to 136, Radford Boulevard. In July, 1911, a third centre was opened on London Road. Both the Radford and London Road centres were established and are still maintained, so far as the houses are concerned, at the expense of private individuals (Mrs. Mehir and Mr. Harry Weinberg, and Lord Henry Bentinck), but the matrons or superintendents at all the Welcomes are appointed and paid by the Corporation. These are ladies with experience of nursing, who also hold the Certificate of the Royal Sanitary Institute for Health Visitors. The Inspector under the Notification of Births Act, Miss Hudston, who is similarly qualified, acts as general superintendent and assistant secretary of the Welcomes.

The management of the latter is vested in a Committee of ladies and gentlemen (chiefly ladies) interested in the promotion of maternal and infant welfare, with the Duchess of Portland as President, and Mrs. F. Kyrle Smith as Chairman. The Chairman of the Health Committee, and the Medical Officer of Health, are members of the committee, and the Medical Officer of Health is closely associated with the Welcomes' management.

Six medical men and women in practice in the City act as honorary medical officers to the Welcomes, and attend in turn one or two afternoons in every week to give advice to the mothers in the management of their own and their babies' health. Various classes are held at the Welcomes for the purpose of giving instruction to mothers in the making-up of babies and other children's clothing. The mothers are taught and encouraged to provide their babies with inexpensive cradles, instead of placing them in the maternal beds.

In addition to the work above described, dinners are provided on all days except Saturdays and Sundays for expectant and nursing mothers, ordinarily at a charge of 1d. per meal, but in exceptionally deserving and necessitous cases, after due enquiry, without payment.

The mothers and children are regularly visited in their homes by Miss Hudston, and the Welcome superintendents, and to some extent also by the voluntary workers on the Committee.

These Welcomes have been remarkably successful from the very outset, as evidenced by the large and regular attendance of expectant and nursing mothers, and the improved condition of the latter and their offspring in all the poor quarters of the town to which the influence of the Welcomes has extended.

I give a table, below, of attendances of all kinds at these Welcomes during July of the current year, that is, before the commencement of the exceptional work undertaken on behalf of the War Relief Fund Committee.

JULY, 1914.

	Attend-ances.	Individuals attending.	New Babies	Dinners.	Nursing and Expectant Mothers.	Children over 1 year.	Matrons' Visits.
Howard St. ..	725	252	61	249	25	58	116
Radford ..	1,105	424	86	290	27	134	161
London Rd. ..	786	269	48	228	21	122	198
Totals ..	2,616	945	195	767	73	314	475

Upon these Welcomes, under normal conditions that is, as above described, the Corporation expends some £600 per annum, made up of £350 in Salaries, £30 in rent of Howard Street, £200 in regular subsidy, and £20 in sundries.

Since the establishment of a War Relief Fund, the three Welcomes have been used in conjunction with four other special temporary establishments as dining centres for soldiers' wives and children, under a subsidy at the rate of between £1,200 and £1,300 per annum from the War Relief Fund. At the Radford Centre alone, during one week of September, about 700 women and children received daily meals, and the total number of meals provided by all the centres in the month of September was more than 13,000. Owing, however, to the fact that the Government have recently increased the grant to the dependents of soldiers and sailors now on service, these dining centres will probably not be much longer required, and, when they are closed down, the original Welcomes,

at Howard Street, Radford Boulevard, and London Road, will revert to their previous ordinary routine as described in the opening paragraph of this report.

The Local Government Board, and the Board of Education, have for some time past been considering a scheme for the granting of subsidies to establishments of this character, and in a recent circular, issued 30th July, 1914, the Local Government Board, after sketching a scheme including all the above elements and also others dealing with the condition of parturient women, state that :—

> "Subject to the estimate now before Parliament being accepted by Parliament, the Board will be willing to consider applications for grants in respect of any work falling within the scope of the scheme outlined in the memorandum accompanying this letter; the grants will normally amount to *one-half* the approved expenditure on any of these purposes, but may be less if the Board so decide."

> "Grants to institutions of the nature of Schools for Mothers, the object of which is primarily educational, which provide training and instruction for mothers in the care and management of infants and little children, and which may include systematic classes, or home visiting, or infant consultations (the provision of specific medical and surgical advice and treatment, if any, being only incidental), will be administered by the Board of Education. Any cases of doubt or difficulty will be investigated by a Joint Committee of Officers of the two Boards, which will include women Medical Officers."

In view of these offers from the Local Government Board and the Board of Education, I propose that we make application forthwith to the Local Government Board only, on the ground that our Welcomes are more, and in the near future will be even more that at present, in the nature of medical establishments than schools for mothers.

In connection with a certain local maternity endowment, there is a possibility of establishing in the near future a Maternity Hospital in this City, which will serve also as the administrative centre and registry of all the maternal and infant welfare work undertaken within the City boundaries.

PHILIP BOOBBYER.

Health Department,
Guildhall,
Nottingham,
30*th September*, 1914.

The production of my annual report for 1913 has been delayed to such an extent in the current year—by circumstances over which I have had no control—that I have not hesitated to insert here information which under ordinary conditions would have been held over for the next annual report.

In the appendix of this report will be found a table of the Mothers' and Babies' Welcomes and Feeding Centres Data for the Summer of 1914, which shows not only a rapid growth of the ordinary work of these excellent institutions, but also their capacity for extending their usefulness in new directions at very short notice.

Miss Hudston reports that she visited 2,313 mothers in their homes during 1913. She also states that 1,756, or 76 per cent., of these mothers, expressed their intention of suckling their infants, and giving them no other nourishment, so long as they should be able to do so. The proportion of mothers who made similar profession during the two preceding years was 82 per cent.—in each year.

Unfortunately, it has been found that with at least 75 per cent. of these mothers the promise or the good resolution does not hold—so far at least as exclusive breast-feeding is concerned—beyond the third month after the birth of the child.

Two hundred and sixty-six, or 11·1 per cent., of the mothers visited, stated that they intended to feed their infants entirely by hand, and 221, or 9·56 per cent., in a mixed manner, both at the breast and by hand.

Seventy, or (again, as in 1912) 3 per cent. of the infants, exclusive of the still-born, had died before the date of the inspector's visit.

The mothers who stated that they were industrially employed outside their homes, numbered 181, and these were equal to 7·8 per cent. of all. The corresponding proportions in the two preceding years were 6·2 per cent. and 5·4 per cent.

Mothers industrially employed outside home (181 out of 2,313 visited) :—

Blouse Hands ..	7	Lace Hands ..	67
Boxmakers ..	8	Laundry Hands ..	5
Charwomen ..	16	Leather Dresser ..	1
Cigarette Makers ..	4	Mill Hands ..	18
Cycle Hands ..	8	Shop Assistants ..	2
Domestic Servants	12	Tailoresses ..	4
Dressmakers ..	2	Other Workers ..	19
Hosiery Hands ..	8		

Sixty-five of these mothers going out to work were unmarried.

The deaths and death-rates of legitimate and illegitimate infants, respectively, are contrasted under the heading of " Births," pp. 27 to 30 ante, and in the Infant Mortality table on page 17 ante. The rate of mortality per 1,000 births among the illegitimate was again, as usual, more than twice the amount of that among the legitimate—251 for the former, as compared with 122 for the latter.

The still-births notified to me during 1913, under the Notification of Births Act, numbered 137, as compared with 144 in 1912.

The Midwives Act, 1902.—The midwives certified under the above Act, who were living in the City of Nottingham at the end of 1913, numbered 97, and 44 were in actual practice as midwives. The corresponding numbers at the close of 1912 were 105 and 43, respectively.

Miss Annie S. Dunne, L.O.S., Cert.R.San.I., Inspector of Midwives for the City of Nottingham, states that she paid 452 official visits to the homes of the local midwives, and 1,239 to those of their patients, during the year.

The number of births attended by certified midwives was 3,666, and these were equal to 60 per cent. of all the births registered in the City during the year. The numbers of births attended by midwives during each of the 3 preceding years were, respectively, 3,639, 3,457, and 3,534.

The assistance of a qualified medical practitioner was called for, by or at the request of the midwife, on 474 occasions during the year.

There was one maternal death, and five deaths of infants, before the arrival of a medical practitioner.

One hundred and five (out of a total of 137) still-births were notified to me by midwives, under the Notification of Births Act, during the year. The numbers of still-births so notified during each of the 3 preceding years were, respectively, 95, 104, and 90.

Four cases of puerperal sepsis were notified by midwives. Two ended in recovery and two in death.

The subject of **Ophthalmia Neonatorum** can be most appropriately mentioned here, for the reason that it is intimately associated in its special incidence with the practice of midwives and the superintendence of that practice.

The disease is a purulent infection of the mucous membrane of the eyes and eyelids of the newly born, usually acquired from the maternal passages at birth, and a frequent cause of blindness in the absence of prompt and skilful treatment. Its notification was made compulsory by vote of the City Council on October 2nd, 1911.

One hundred and thirteen cases (the same number as in 1912) were reported during 1913, 68 of males and 45 of females. Sixty-nine were notified by midwives, 22 by the Inspector under the Notification of Births Act, 10 by general medical practitioners, 9 by the surgical staff of the Eye Infirmary, and 3 by the Inspector of Midwives.

The following later history of the above 113 notified cases is instructive, and for the most part highly satisfactory :—

105	made good recovery under appropriate treatment.
6	were still under treatment at the Eye Infirmary at the close of the year.
1	died of impetigo.
1	was taken to the Workhouse Infirmary (and lost sight of by the Inspector).
113	

Canal Boats Acts, 1877 to 1884; and Regulations, 1878.—Mr. F. W. Franks, Cert. R. San.I., Chief Clerk of the Health Department, is the City Inspector of Canal Boats. He reports that he visited the canals and other navigable waters in the City on 91 occasions during the year, and made a thorough inspection of 137 boats in the course of these visits. All his inspections were made during the hours laid down in the Act of 1877 (between 6 a.m. and 9 p.m.). He was freely admitted to the boats and well received on all occasions. The women living and travelling on the boats inspected were 34 in number, and the children 20. Twelve of the latter were under 5 years, and the remaining 8 between 5 and 12 years of age.

It was found necessary to issue 2 notices in respect of infringements of the Act and Regulations, one for a defective water vessel (L.G.B. Regulations, 1878), and the other for failure on the part of a master to carry a registration certificate (Canal Boats Act, 1877), but both were duly complied with.

There was no report of infectious sickness upon any boat, nor was any boat detained for cleansing or disinfection during the year. The canal boats on the City register numbered 74, the same total as 12 months earlier.

Factory and Workshop Acts, 1891-1901. —Tables drawn up in the form approved by the Secretary of State for the Home Department are given on pp. 183 to 185 of this Report, which set out, for the year 1913, the inspections made, notices issued, and defects found and remedied by officers of the Local Authority, particulars of home-work and outworkers and of lists of these received from employers (Sec. 107), of outwork found on unwholesome and infected premises (Secs. 108-110), and of action taken to prevent its issue to such premises (Secs. 109-110), the number of workshops on the local register (Sec. 131), matters notified by the Local Authority to His Majesty's Inspector (Sec. 133), and vice versa, and underground bakehouses in use at the end of the year (Sec. 101).

These tables speak for themselves in showing, at once, the nature and scope of the work required from the officers of the Local Authority, and the amount of such work done at their instance and under their supervision. Mr. William Flint, and Miss Sophie A. Buckoll, Cert.R.San.I., continue to act as inspectors in charge of this branch of sanitary work.

Our duty, so far as factories are concerned, still consists to a very large extent in securing the provision and maintenance of suitable and sufficient "sanitary conveniences" (Sec. 22, Public Health Acts Amendment Act, 1890), and the standard of adequacy adopted by us is that set up by the Home Office Order of February 4th, 1903.

The campaign against the dry closet in recent years has affected this type of closet attached to factories and workplaces quite as much as that of dwellings, and as the proportion of such conveniences attached to factories was always relatively small, a large majority of these industrial establishments in the City are now furnished with W.C.'s. The W.C.'s in our factories, too, are usually of the single pedestal type.

The number of W.C.'s registered by the Water Department as situated upon "trade premises" at the close of 1913 was 3,549, showing an increase of 140 in twelve months.

The subsidy granted by the Corporation towards the cost of converting pail-closets to W.C.'s has now been extended to factories, so that the rate of conversion for the few remaining "pails" of factories should be more rapid than heretofore.

The number of definite nuisances connected with such "sanitary accommodation," with want of cleanliness, with want of ventilation, with defective drainage, and with other matters not easily classified, into which the local inspectors were called upon to inquire during the year, was 501. In all but 29 of these, a more or less satisfactory solution was secured before the end of the year. The vacation of premises, or the occurrence of the incidents so late in the year as to preclude adjustment before its close, account for the majority of these 29 exceptions.

There was no instance of the illegal occupation of an underground bakehouse (Sec. 101) during the year, but no less than 145 breaches of the special sanitary requirements for bakehouses (Secs. 97-100). In every instance, however, of this latter class, the defect was remedied before the close of the year.

It was found necessary on 8 occasions to notify H.M. Inspector of Factories of failure to exhibit an abstract of the Factory and Workshop Acts.

H.M. Inspector of Factories for Nottingham, and the Lady Inspectors of the Factory Department, sent intimation on 61 occasions during the year of matters remediable under the Public Health Acts, and in every case the matter complained of was satisfactorily adjusted, and the Inspector concerned apprised of the action taken, before the close of the year.

Although a return of the official visits paid to outworkers' premises is no longer required by the Home Office, it may be well to mention that these premises are still inspected as thoroughly and regularly as is compatible with the performance of other duties on the part of the (female) official engaged upon the work. It may also be well to repeat—what has already been stated in former reports—that several officers, in addition to the lady above-mentioned, keep an eye upon outworkers' premises, in the course of their visits for other purposes to the streets and neighbourhoods in which these premises are situated.

The prohibition of homework upon infected premises is still regularly enforced (Sec. 110, Factory and Workshop Act, 1901), and all goods and premises that have been exposed to the infection of the diseases referred to in Section 6 of the Infectious Disease (Notification) Act, 1889, are disinfected as a matter of routine at the public expense. It is hardly necessary to add that this practice frequently entails considerable loss to the owners of the goods.

Shops Acts, 1912 and 1913.—I have been requested to reproduce the following abstract of the Shops Acts which I drew up in 1913, as there appears to be considerable misconception respecting several of the provisions of the Acts.

The principal Act, which repeals *en bloc* the Shops Regulation Acts, 1892 to 1911, came into force on May 1st, 1912. Its chief sections make provision as follows :—

Sec. 1, provides that every shop assistant outside the shopkeeper's own family, living with, and dependent upon him, shall have one weekly half holiday after 1.30 p.m., and definite meal intervals daily, and that a notice shall be put up giving the day for the half of which each assistant is off duty.

Sec. 2, re-enacts the provisions of the Shop Hours Acts, with their extraordinary weekly working period of 74 hours for young persons (under 18 years).

Sec. 3, requires that seats shall be provided in the proportion of one seat to every three shop assistants employed in any shop or room.

Sec. 4, requires the closure of every shop, except for certain exempted trades, upon one weekday of every week, from 1 p.m. The Local Authority may fix the particular closing day, and vary it.

Sec. 5, empowers the Local Authority to make a closing order, to be confirmed by the Secretary of State, for fixing the evening closing hour for shops in their districts, such hour, however, to be not earlier than 7 p.m.

The subsequent sections and their contained provisions are as under :—

Sec. 6, procedure for making orders.
,, 7, local inquiries for promoting and facilitating early closing.
,, 8, revocation of closing orders.
,, 9, provisions *re* trading elsewhere than in shops.
,, 10, provisions *re* shops where more than one business is carried on.

Sec. 11, special provisions *re* holiday resorts.
,, 12, application of Act to Post Office business.
,, 13, powers and duties of Local Authorities.
,, 14, provisions *re* offences.
,, 15, expenses of Secretary of State.
,, 16, local inquiries.
,, 17, regulations.
,, 18, proof and revocation of orders.
,, 19, interpretation.
,, 20, application to Scotland.
,, 21, application to Ireland.
,, 22, short title of Act, commencement and repeal.
Schedules.

On March 7th of 1913 an amending Act relating to shops for the sale of refreshments came into force, stating that the provisions of Sec. 1 of the Shops Act shall not apply to shop assistants employed on any premises for the sale of refreshments, whether licensed for the sale of intoxicating liquors or not, if their employment is mainly in connection with the sale of intoxicating liquors or refreshments for consumption on the premises, and if the occupier by notice exhibited constantly on the premises signifies his acceptance of certain conditions, as to hours of weekly employment of his assistants (65 hours), and as to their whole weekday holidays (32 days) and the whole Sunday holidays (26 days) in the course of every year, and as to their hours for meals, in substitution therefor.

The fact that many shops carry on exempted and non-exempted trades upon the same premises, at once indicates a direction in which difficulty is likely to arise alike as regards the observance and the administration of the Act.

Mr. George Allen Pratt, and Miss Annie Gertrude Blayney, are the Inspectors appointed under the Shops Act, 1912.

Proceedings were taken against 22 persons for a like number of offences against the provisions of the Shops Acts, during 1913, and convictions obtained in every instance. Fines amounting in all to £274 11s. were imposed in respect of these offences. The nature of the offence, and the amount of the fine, in each case, are given under the heading of "Prosecutions" on pp. 179 and 180 post.

The National Health Week (as organized in the first instance by the Agenda Club, London, and taken over subsequently by the Royal Sanitary Institute, 90, Buckingham Palace Road, London, S.W.).

The establishment of this annual health mission has met with very general acceptance throughout the country, but as, on account of the War, it has been decided to suspend its celebration during the current year, I have thought it would be well to keep it in mind by publishing once again the text of a circular which I drew up for the Agenda Club, indicating the part which may be usefully played by the Local Authority in promoting it.

The interruption of the celebration during the current year is the more to be regretted on account of the signal success which attended it in 1911 and 1912 when held in this City.

The text of the circular referred to is given below ; it sets out substantially the attitude adopted towards Health Week by the Nottingham Corporation, and the action taken locally in promoting it :—

WHAT THE LOCAL SANITARY AUTHORITY CAN DO.

The case of a town is here taken, but with slight variations the suggestions are applicable to other areas.

In the first place the Authority must recognize that the observance of Health Week, in the manner suggested by the National Health Week Committee, cannot fail to strengthen their hands by educating public opinion in various matters with which they are called upon to deal in the public interest.

Having decided then that a successful Health Week will greatly assist their work, they should authorize their Medical Officer of Health and the officers of his department to do all in their power, under the supervision of the Health Committee, to assist the Health Week movement, so far as they may do so without neglecting their ordinary duties. The Medical Officer of Health will usually be the most fitting person to fill the office of local secretary. A town's meeting may be called by the Mayor, and at this meeting the objects of the movement should be briefly and clearly explained, and a representative committee appointed to define and organize the work to be done during the

week. The Committee should be made up of representatives of the municipality, the magistracy, the Insurance Committee, the Board of Guardians, the clergy and ministers of all denominations, the Press, the teaching profession, the medical profession, the employers of labour, including shopkeepers, the Trade Unions and Friendly Societies, the directors and officers of church and chapel and secular institutes and boy scout corps, the managers of places of public amusement, and other persons interested in promoting the education, entertainment, and general well-being of the local population. This body should then proceed to appoint an executive committee to organize the work to be done both in preparing for the observance of Health Week and in the actual observance itself.

Some useful suggestions with regard to the actual work to be done during Health Week will be found in a leaflet (A2) published by the National Health Week Committee.

While leaving the Committee's leaflets to speak for themselves upon their several subjects, it may be well to remind the local committees that the classes most in need of instruction are those at the lower end of the social ladder, and that, consequently, a simple but good dinner-hour lecture in a single factory, of which the general public will hear nothing at all, may bear more useful fruit than a well-advertised popular lecture in a public hall attended by hundreds of middle-class people. No class of the community should be neglected, but the poor should be the first considered, because their need is the greatest.

Diseases of Animals Act, 1894; *Orders, Regulations, etc., of the Board of Agriculture.—*Swine Fever.*—The general Swine Fever (Regulation of Movement) Order of June 1st, 1908, was in force from September 25th, 1912, till November 18th, 1913, when Nottingham was declared a swine fever infected area (on account of the large local outbreaks of the disease to be mentioned later), and so remained till the end of the year.

Tuberculosis.—The Tuberculosis Order of 1913 came into operation on February 13th, 1913. This Order provides for the notification of all cases of definite tuberculous disease among bovine animals, and for the examination of cases of suspected disease

* The Tuberculosis Order of 1913 was superseded by the Amending Order of 1914, which came into force on July 1st, 1914. The latter Order was suspended on August 6th, 1914.

The Sheep Dipping (England) Order of 1908, and the Parasitic Mange Order, 1911 (except as regards exposure or movement of affected animals), were also suspended on August 6th, 1914.

by a veterinary surgeon. It also provides for the slaughter of animals, and for the payment of compensation on the following scale :—

$\frac{3}{4}$-value before slaughter if animal suffering from slight tuberculosis.

$\frac{1}{4}$-value before slaughter if animal suffering from advanced tuberculosis.

For the purposes of the Order, an animal shall be deemed to have been suffering from advanced tuberculosis—

(*a*) When there is miliary tuberculosis of both lungs.

(*b*) When there are tuberculous lesions in both pleura and peritoneum.

(*c*) When tuberculous lesions are present in the muscular system or in lymphatic glands embedded in or between the muscles ; or

(*d*) When the carcase is emaciated, and tuberculous lesions are present.

The milk from cows which are, or appear to be, suffering from chronic disease of the udder, or from tuberculosis with emaciation, must not be mixed with other milk, except under certain conditions.

Sheep Dipping (*England*) *Order of* 1908.—This Order was in force, as before, between the 14th July and the 31st of August, both dates inclusive.

Twenty-nine cases of *reputed Swine Fever* were reported in the City during 1913, but in four only of these was the diagnosis bacteriologically confirmed by the Board of Agriculture, two in October affecting 67 animals, and two also in November affecting 133—200 animals in all.

Four cases of *Parasitic Mange* occurred during 1913—all in horses. All ended in recovery under appropriate treatment. The prescription of the Board as regards isolation and disinfection was duly complied with.

The Dairies, Cowsheds, and Milkshops Orders, 1885 to 1899.—The City register of milksellers at the close of 1913 contained the names of 1,138 persons, 71 having been added during the year.

All applicants for registration as milksellers are entitled to be registered on application. The Local Authority can only criticize the conditions under which the business is, or is to be, carried on, after the registration is effected.

I feel constrained once more to emphasize the necessity, in the public interest, of discouraging the practice of storing and selling a raw food like new milk, which is peculiarly susceptible to infection of various kinds, in the dusty atmospheres of small general shops. This practice is very general in the City at the present time. It is possible, in cases where the conditions are grossly insanitary, to stop the keeping of milk by notice to discontinue (under the existing regulations), followed by police court proceedings in the event of non-compliance* ; but nothing short of new and stricter regulations, which in effect would inhibit the keeping of milk in general shops altogether, will suffice to meet the needs of the situation.

Very little profit, I am assured, is derived from the sale of milk in these small shops. The keepers inform us, on enquiry, that their only reason for continuing it is, that they dare not risk the loss of

* Two shop-keepers have recently been summoned and fined for such an offence (1914).

customers who might go elsewhere if they could not obtain from them their milk as well as other provisions and household requisites.

It must not be forgotten, moreover, that the sale of milk in this manner, and under these conditions, is not only injurious to the public, and especially to those sections of it which are most liable to injury from contaminated milk, viz., the infants and young children of the poor, but that it also prevents the establishment of well-appointed, good-class dairies in the poorer parts of the City.

I have not recommended the establishment of a milk depôt, or of milk depôts, hitherto, because I believe that such a venture, or ventures, would share the fate of past attempts in the same direction, so long as the small general shop is allowed to play the part of a competitor, and often an unfair competitor, in the business.

The number of cowkeepers on the Nottingham City register at the end of 1913 was 41, as compared with 50, 46, and 41 at the end of the 3 preceding years, respectively. The cowsheds were 85 in number at the close of 1913, as against 116 and 87 in the 2 preceding years, and the cows they accommodated 571, as against 669 and 593 in the same 2 years.

As on many previous occasions, I have once more to report a continuance of the steady shrinkage of cowkeeping inside the City, with the concurrent extension of building operations over the rural areas contained within the City boundaries. This shrinkage is not of unmixed advantage to the citizens, for the cowsheds and dairies inside the City are under our constant supervision, and the conditions under which the cows are kept, and the milk produced and

stored, are certainly far superior to those which obtain in many of the dairy farms in districts outside, the supervision and control of which are less strict than our own.

During 1913, as previously, we have paid occasional visits to dairy farms outside the City, in most cases because of complaints received from retailers and consumers in the City respecting the inferior quality or uncleanly condition of the milk sent in. We have, of course, no jurisdiction over these outside dairy farms (except in the case of milk acting, or suspected of acting, as a vehicle of infectious sickness), and have always acknowledged this fact on the occasions of our visits; but by reason of the powers we possess under the Sale of Food and Drugs Acts, and of our strong moral right to protect the interest of the City customers of these outside dairies, we have been courteously received on all occasions.

Seven milch cows were found during the year to be suffering from tuberculosis, and were slaughtered, their carcases being dealt with at the knackery.

Mr. William Taylor, M.R.C.V.S., has been called in for all examination of cows, under the Tuberculosis Order or otherwise.

This latter Order, as mentioned under the heading of Diseases of Animals Act, 1894, Orders, etc., pp. 165 to 167 ante, has been suspended during the current year.

Inspector Harold Leavers, Cert.R.San.I., is now Inspector of Dairies and Cowsheds for the City of Nottingham. He succeeded Mr. J. A. Sutton, who became Meat Inspector on the death of Mr. H. T. Moore (February 22nd, 1913).

Slaughter-Houses.—The revised number of slaughter-houses in actual use as such, in Nottingham at the close of 1913, was 103.

Four applications for leave to erect new slaughter-houses were received during the year. All were refused by the Health Committee.

The situations in which it was proposed to erect these slaughter-houses were as follows: Court Street, Hyson Green; Upper Woodborough Road, Mapperley; Querneby Road, Mapperley; Morley Avenue, Mapperley.

Owing to the fact that the Health Committee, on the advice of the present Chairman, have decided at an early date to give very serious consideration to the question of providing an abattoir for the City of Nottingham, it would seem unnecessary to repeat the arguments I have usually advanced in my Annual Reports in favour of these establishments as contrasted with private slaughter-houses. I may, however, I think with advantage, state my opinion upon one point which has been recently raised in connection with the proposed abattoir scheme. I refer to the question whether there should be one or more of these establishments in the City. I can say at once, without hesitation, that I am strongly of opinion, alike from independent reasoning and from my observation and experience of numerous places where abattoirs are in use, especially on the continent, that one abattoir, adjoining the railways, and cattle, sheep, and pig markets, with space in its vicinity for the establishment of cold chambers and various other offices, and of subsidiary trades in connection with the disposal and distribution of hides and skins, fat, guts, bones, gelatin, etc., is infinitely preferable to two or more, at once for reasons of humanity, public and trade convenience, and administrative economy and efficiency.

The Lethal Chamber of the City for Dogs, Cats, etc., at the Eastcroft Sanitary Depôt.—The Watch Committee bear the entire cost of this chamber, but the working and management of it are left to the Health Department. The lethal agents employed are Chloroform Vapour and Carbonic Acid Gas. The working parts have been to a large extent renewed during the past year, and certain necessary alterations have been carried out, including the provision of kennels for animals brought to the chamber between the times appointed for working the lethal apparatus.

The number of dogs destroyed in 1913 was 1,485, and of cats, 688—2,173 in all.

The table below gives the numbers of dogs and cats destroyed each year since the chamber was first established, in 1898.

Year	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907
Dogs ..	422	472	731	770	856	1078	1325	1507	1448	1531
Cats ..	64	108	180	297	371	455	735	548	428	531

Year.	1908	1909	1910	1911	1912	1913
Dogs ..	1435	1502	1555	1463	1554	1485
Cats ..	614	718	612	624	705	688

Several monkeys, rabbits, birds, and other animals have also been destroyed in the chamber from time to time.

The comparative uniformity of the total numbers of animals destroyed in this chamber during each of the past 10 years is a striking feature of the table.

Offensive Trades.—The establishments at which any of the trades, scheduled or otherwise, included under this heading by the Public Health Act, 1875, are now carried on in Nottingham, number 17.

Three applications for the "consent of the Local Authority in writing" to the establishment of such trades in the City were received during the year. All were refused.

The particular trades in respect of which these applications were made were as follows, viz. : those of—

(1) Rag and bone dealer.
(2) Bone dealer.
(3) Bone boiler.

Unwholesome Food-Stuffs.—The inspection of general provisions up to the close of 1913 was carried out, as before, by Mr. Samuel Billington, Cert.R.San.I., and since the death of Mr. H. T. Moore (February 22nd, 1913), as for some time previously, the inspection of butchers' meat has been entrusted to Mr. J. A. Sutton, who holds the certificate of the Royal Sanitary Institute both as Inspector of Nuisances and as Inspector of Meat and Other Foods. But, as I have often urged in previous reports, it is quite impossible for two officials, however conscientious and efficient, to carry out an effective inspection of the food supplies in these two departments, in a City so large as Nottingham.

The inspection of butchers' meat would of necessity be greatly assisted and simplified by the establishment of an abattoir in substitution for the existing multiple private slaughter-houses.

The various kinds of food-stuffs seized or surrendered during 1913 are set out in the tables below, with the amounts of each kind which thus came into our hands.

BUTCHERS' MEAT.

Description.	Weight. Imp. Stones.	lbs.
Beef	6472	3
Mutton	18	3
Pork	874	0
Veal	84	4
Viscera	2224	3
Tripe	5	13
Bacon	4	7
Ham	12	0
Livers	4	2
Suet	2	3
Sausage Meat	4	7
Ox Tails	0	9
Total	9706	2

GAME & POULTRY.

	Stones.	lbs.
Rabbits	263	10½
Fowls	10	3½
Wild Ducks	10	0
Hares	7	7
Grouse	5	0
Chickens	4	7
Wood Pigeons	4	0
Turkeys	2	10½
Partridges	2	0
Ducks	0	3½
	310	0

WET FISH.

Herrings	745	0
Mackerel	520	0
Cod	199	3½
Sprag	99	0
Skate	81	7
Cat-Fish	76	7
Conger Eel	51	7
Coalfish	37	7
Halibut	30	10½
Whiting	30	3½
Lemon Soles	22	7
Hake	17	0
Chitterlings	16	3½
Salmon	13	7
Plaice	13	3½
Smelts	11	7
Sea Bream	10	0
Haddocks	8	0
Sprats	8	0
Fish Roes	5	10½
Megrims	4	0
Witches	3	3½
Salmon-pollen	3	0
Whitebait	3	0
Mixed Fish	2	0
Turbot	0	7
	2012	10½

SHELL FISH.

	Stones.	lbs.
Mussels	2816	0
Shrimps	242	7
Periwinkles	156	0
Oysters	60	0
Whelks	43	0
Lobster-Prawns	21	7
Crabs	20	0
Prawns	12	0
Lobsters	4	7
	3375	7

DRY FISH.

Bloaters	247	0
Kippers	144	7
Smoked Mackerel	36	0
,, Codling	13	0
,, Haddocks	13	0
,, Fish Fillets	11	7
,, Bloaters	6	0
Pickled Shrimps	1	3½
	472	3½

FRUIT.

Black Currants	238	0
Pears	104	0
Water Melons	32	0
Lemons	18	0
Strawberries	16	7
Gooseberries	11	0
Apples	10	0
Blackberries	7	7
Red Currants	6	0
Grapes	6	0
	449	0

VEGETABLES.

	Stones.	lbs.
Carrots	2572	0
Cabbage	1046	0
Potatoes	1010	0
Onions	496	0
Brussels Sprouts	460	0
Turnips	356	0
Parsnips	238	0
Radishes	112	0
Turnip-tops	90	0
Cauliflowers	86	0
Lettuces	46	0
Celery	22	0
Cress	12	0
Parsley	10	0
Mustard	10	0
Tomatoes	2	0
	6568	0

CANNED FOODS.

Tomatoes	1789	0
Beef	349	0
Milk	232	10½
Salmon	161	3½
Apricots	145	10½
Pears	105	3½
Pineapple	102	10½
Lobster	85	7

CANNED FOODS—*continued.*

	Stones.	lbs.
Peaches	75	10½
Sardines	61	0
Tongue	37	7
Crayfish	34	10½
Herrings	26	10½
Damsons	21	0
Plums	7	10½
Mutton	6	7
Crab	6	7
Strawberries	4	3½
Rabbit	4	3½
Raspberries	3	0
Cherries	2	10½
Prawns	1	10½
Apples	1	7
Fish-Paste	1	7
Peas	0	10½
Grapes	0	7
Beans	0	3½
Oxtail	0	3½
	3270	3½

MISCELLANEOUS ITEM.

Eggs	57	0
	57	0

Sale of Food and Drugs Acts, 1875 to 1899. Adulterations and Abstractions.—

In accordance with the latest decision of the Health Committee, in this regard, 600 samples of food and drugs are now taken annually, and submitted to the City Analyst, Mr. S. R. Trotman, M.A., F.I.C., for analysis.

In the following tables will be found particulars of the samples taken during 1913, with the result of analysis in each case:—

OFFICIAL SAMPLES.

	No. of Samples.	No. Pure.	No. Deficient or Adulterated. Deficient in Fat.	Added Water.
Milk, New	315	291	1. 9·5%	2. 13·0%
			2. 9·0%	1. 12·0%
			3. 8·0%	1. 11·0%
			1. 6·0%	2. 10·0%
			2. 5·0%	3. 8·0%
			1. 3·5%	2. 7·0%
			4. 3·0%	1. 6·0%
			—	1. 5·0%
			14	1. 4·0%
				14

	No. of Samples.	No. Pure.	No. Deficient or Adulterated.	
				With Added Water.
Milk, Separated	4	3		1. 2·5%
Milk, Condensed Skimmed	1	1		Pure.
				With Boric Acid.
Cream	17	—		1. 0·48%
				1. 0·45%
				1. 0·40%
				1. 0·39%
				1. 0·28%
				1. 0·25%
				1. 0·22%
				4. 0·20%
				2. 0·19%
				1. 0·18%
				1. 0·15%
				1. 0·11%
				1. 0·10%
				17
			With Margarine.	With Boric Acid.
Butter	50	42	1. 100·0%	1. 0·65%
				1. 0·44%
				1. 0·32%
				1. 0·30%
				1. 0·17%
				1. 0·13%
				1. 0·10%
				7
				With Boric Acid.
Margarine	10	2		1. 0·56%
				1. 0·40%
				1. 0·34%
				1. 0·33%
				1. 0·27%
				1. 0·25%
				1. 0·20%
				1. 0·18%
				8
Lard	23	23		All Pure.
Dripping, Beef	1	1		
Cheese	12	12		
Bread	10	10		
Flour, Self-raising	6	6		
Sponge Mixture	1	1		
Baking Powder	4	4		
Demerara Sugar	3	3		
Treacle	2	2		
Lemon Curd	1	1		
Marmalade	1	1		

	No. of Samples.	No. Pure.	Contained Apple Pulp.	No. Deficient or Adulterated, With Salicylic Acid.
Black Currant Jam	4	1	1	1. 0· 8 grs. per lb.
				1. 0·25 ,, ,,
				—
				2
				With Apple Pulp.
Raspberry Jam	1	—		1. 5%
Raspberry and Gooseberry Jam	3	2		With Salicylic Acid. 1. 0·5 grs. per lb.
Apricots, tinned	1	1		Pure.
				With Salicylic Acid.
Mince Meat	2	1		1. 0·77 grs. per lb.
Sausage	1	1		Pure.
				With Boric Acid.
Potted Beef	5	3		1. 0·16%
				1. 0·15%
				—
				2
Brawn	1	1		All Pure.
Coffee	8	8		All Pure.
				With excess Water.
Coffee and Chicory	24	22		2. 5%
Cocoa Essence	1	1		All Pure.
Cocoa	3	3		All Pure.
				With Talc Facing.
Rice	3	2		1. 0·31%
Sago	1	1		All Pure.
Semolina	1	1		All Pure.
Ground Ginger	8	8		All Pure.
Pepper, White	5	5		All Pure.
Mustard	12	12		All Pure.
Vinegar	8	8		All Pure.
Olive Oil	1	1		All Pure.
				With Arsenic.
Ale	8	—		1. $\frac{1}{120}$ gr. per gallon.
				1. $\frac{1}{150}$,, ,,
				1. $\frac{1}{160}$,, ,,
				1. $\frac{1}{180}$,, ,,
				1. $\frac{1}{240}$,, ,,
				1. $\frac{1}{360}$,, ,,
				2. A trace.
				—
				8
				With Added Water.
Whisky	4	3		1. 17·0%
Brandy	1	1		All Pure.
Gin	2	2		All Pure.
Port Flavoured Wine	1	1		All Pure.
				With Salicylic Acid.
Cowslip Wine	1	—		1. 1·75 grs. per pint.

	No. of Samples.	No. Pure.	No. Deficient or Adulterated.
			Deficient in Ethyl Nitrite.
Sweet Nitre	6	5	1. 40·0%
			Deficient in Ammonia.
Sal Volatile ..	4	3	1. 33%
Cream of Tartar ..	1	1	All Pure.
Citrate of Magnesium	1	1	
			Deficient in Alkaloids.
Ipecacuanha Wine ..	2	1	1. 90·0%
Friar's Balsam ..	3	3	All Pure.
			Deficient in both Ammonia & Quinine.
Ammoniated Tincture of Quinine.	1	—	1 100%
Tincture of Rhubarb	2	2	All Pure.
Epsom Salts.. ..	1	1	
Liquorice Powder ..	3	3	
Camphorated Oil ..	1	1	
Acid Tinct. Lobeliæ	1	1	
Tincture of Iodine ..	3	3	
	600 Total Samples.	517 Pure or Genuine.	87 Adulterated or Deficient.

It will be seen that, of the total of 600 samples taken, 517, or 86·1 per cent., proved to be pure or genuine or sufficiently near purity and genuineness to be classible as such. The corresponding proportions of all samples found to be so classible in each of the preceding 5 years were, 78·5 per cent., 86·7 per cent., 88 per cent., 88·3 per cent., and 84 per cent.

Particulars of cases in which proceedings were taken in respect of offences under the Sale of Food and Drugs Acts, with the results of such proceedings, will be found under the heading of "Prosecutions" on page 180 post.

Unofficial samples are taken from time to time with the view of obtaining guidance and information without exciting suspicion on the part of the vendor.

The following is a list of such samples taken during 1913, with the result of their analysis:—

UNOFFICIAL SAMPLES.

No.	Article.	Result of Examination	Action taken.
1.	Milk . .	Deficient in fat 12%	Official sample subsequently taken.
2.	Butter	Genuine.	——
3.	Milk . .	Added water 6%.	Official sample subsequently taken.
4.	,, . .	Genuine.	——
5.	Butter	,,	——
6.	,,	,,	——
7.	,,	,,	——
8.	,,	,,	——
9.	,,	,,	——
10.	,,	,,	——
11.	Milk . .	,,	——
12.	,, . .	,,	——
13.	,, . .	Deficient in fat 12%	Official sample subsequently taken.
14.	Butter	Genuine.	——
15.	,,	,,	——
16.	Lard . .	,,	——
17.	Butter	,,	——
18.	,,	,,	——
19.	,,	,,	——
20.	,,	,,	——
21.	Milk . .	,,	——
22.	Cheese	,,	——
23.	Cream	,,	——
24.	Milk . .	,,	——
25.	,, . .	,,	——
26.	,, . .	,,	——
27.	Cream	Boric Acid 0·44%.	——
28.	Milk . .	Genuine.	——
29.	Butter	,,	——
30.	Horehound	,,	——
31.	Mustard	,,	——
32.	Cream	Boric Acid 0·35%.	Official sample subsequently taken.
33.	Milk . .	Genuine.	——
34.	,, . .	Deficient in fat 5%.	Official sample subsequently taken.
35.	Butter	Genuine.	——

Fertilizers and Feeding Stuffs Act, 1906.—The number of samples taken during 1913, under this Act, was 19, as against 17 the year before. The nature of each sample, the result of its analysis, and the action taken in respect of offences, are set out in the accompanying table.

FERTILIZERS AND FEEDING STUFFS ACT, 1906.

No.	Article.	Result of Examination	Action taken.
1.	Crushed Oats ..	Genuine.	——
2.	Bran	,,	——
3.	Bran	,,	——
4.	Crushed Oats ..	,,	——
5.	Barley Meal ..	,,	——
6.	Fourths	,,	——
7.	Fourths	,,	——
8.	Crushed Oats ..	,,	——
9.	Fourths	,,	——
10.	Barley Meal ..	,,	——
11.	Bran	,,	——
12.	Crushed Oats ..	,,	——
13.	Basic Slag ..	,,	——
14.	Canary Guano ..	,,	——
15.	Basic Slag ..	,,	——
16.	Bone Meal ..	,,	——
17.	Peruvian Guano..	,,	——
18.	Bone Meal ..	No invoice given with article.	Reported to Health Committee and Referred to Board of Agriculture.
19.	Nitrate of Sodium	,,	,,
20.	Crushed Oats ..	Genuine.	——
21.	Bran	,,	——

Prosecutions.—The table which follows gives particulars of cases in which proceedings were taken during 1913 for offences under certain Acts of Parliament administered by the Health Department, with the results of such proceedings in every instance.

PUBLIC HEALTH ACTS.

Offence.	Result.
Exposure of unsound meat for sale	Fine of £3 3s. 0d.
Deposit of unsound meat for sale	Fine of £20 and £10 10s. 0d. costs.
Non-compliance with an Order of the Court respecting the repair of property	Fine of 10/-
Keeping of pigeons in such a manner as to constitute a nuisance—5 cases	Ordered to remove within 7 days under penalty of 10/- a day in default, in each case

SALE OF FOOD AND DRUGS ACTS.

Offence.	Result.
Sale of New Milk containing 10% added water and 9% deficient in fat	Ordered to pay 40/- in each case.
„ „ „ „ 11% added water ..	Fine of £1.
„ „ „ „ 8% „ „ ..	Ordered to pay costs.
„ „ „ „ 10% „ „ ..	Fine of 10/-
„ „ „ „ 13% „ „ ..	„ „ £1.
„ „ „ 8% deficient in fat	„ „ £1.
„ „ „ 3½% „ „	„ „ £1.

SHOPS ACTS, 1912-13.

Offence.	Result.
Failure to close shop on one half-day per week for 4 weeks ..	Fined £40.
„ „ „ „ „ „ „ 4 „ ..	„ £40.
„ „ „ „ „ „ „ 3 „ ..	„ £30.
„ „ „ „ „ „ „ 3 „ ..	„ £30.
„ „ „ „ „ „ „ 3 „ ..	„ £30.
„ „ „ „ „ „ „ 3 „ ..	„ £30.
„ „ „ „ „ „ „ 3 „ ..	„ £30.
„ „ „ „ „ „ „ 4 „ ..	„ £20.
„ „ „ „ „ „ „ 4 „ ..	„ £20.
„ „ „ „ „ „ „ 3 „ ..	„ £6-6-0.
„ „ „ „ „ „ „ 4 „ ..	„ £4.
„ „ „ „ „ „ „ 3 „ ..	„ £3.
Sale of non-exempted goods on day observed for early closing	„ 2/6.
„ „ „ „ „ „ „	„ 2/6.
„ „ „ „ „ „ „	„ 2/6.
„ „ „ „ „ „ „	„ 2/6.
„ „ „ „ „ „ „	„ 2/6.
„ „ „ „ „ „ „	„ 2/6.
„ „ „ „ „ „ „	„ 2/6.
„ „ „ „ „ „ „	„ 2/6.
„ „ „ „ „ „ „	„ 2/6.
„ „ „ „ „ „ „	„ 2/6.

Notices.—The official notices issued by, or on behalf of, the Health Department during the year were as follows:—

Statutory Notices	122
Non-statutory Notices ..	1,660
	1,782

In addition to these, however, a large number of suggestions, requests, and intimations are given in writing and by word of mouth, on account of which much work is carried out.

The Inspectorial Staff.— The death of Mr. H. T. Moore, Meat Inspector of the City for 18 years, took place on February 22nd, 1913, and a short account of Mr. Moore's official record is given in my Annual Report for 1912. I shall therefore make no further reference to his death, beyond explaining the appointments made and adjusted as a consequence of it.

Inspector John Arthur Sutton, Certs.R.San.I. (both for Inspection of Meat and Other Foods, and for Nuisances) succeeded Mr. Moore as Meat Inspector.

Inspector Harold Leavers, Cert.R.San.I., who had previously held the post of District Inspector in the N.E. District, succeeded Mr. Sutton as Inspector under the Sale of Food and Drugs Acts.

Inspector Harold Kinsey Peach, Cert.R.San.I., succeeded Mr. Leavers as District Inspector in the N.E. District, and Inspector William Richardson, Cert.R.San.I., previously an Assistant Inspector, was appointed District Inspector in the S.W. District.*

Inspector George Old, of the Bulwell, Basford, and Carrington Districts, and Inspector Harry Womersley, Cert.R.San.I., of the Meadows or S.E. District, retain their appointments as District Inspectors in these areas.

Particulars of the sanitary work done in the various inspectorial districts of the City, through the agency of the several district inspectors, will be found in the table on page 186 post.

* These appointments were mentioned in the report for 1912, but are detailed here again because they were actually made during 1913.

The work of the special inspectors is described and explained under appropriate headings in the section of this report devoted to "Work in Departments," pp. 133 to 181 ante.

Mr. Herbert Read, Cert. R.San.I., continues to act as Statistical Clerk and Officer-in-Charge of the General Office of the Health Department.

Much of the ordinary work of the Health Department has been seriously interfered with by the outbreak of war. Messrs. J. A. Sutton, Harold Leavers, and William Richardson of the Inspectorial Staff, and Frank Richardson of the Clerical Staff, have all joined the Colours. This has not only delayed the production of my report, but has also given rise to the necessity for the making of various temporary appointments to fill the vacancies caused by the (as we hope) temporary absence of these officers. These provisional appointments and adjustments will be dealt with in my next annual report, in which I hope also to make suggestions for certain fresh appointments, and for the re-distribution of the inspectorial districts, so as to render them co-terminous with wards or groups of wards in the City.

ANNUAL REPORT of the MEDICAL OFFICER OF HEALTH for the year 1913, for the County Borough of NOTTINGHAM (City) on the administration of the Factory and Workshop Act, 1901, in connection with

FACTORIES, WORKSHOPS, WORKPLACES, AND HOME-WORK.

(Inspectors: William Flint and Sophie A. Buckoll, Cert. R. San. I.)

1.—Inspection of Factories, Workshops, and Workplaces.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises. (1)	Number of		
	Inspections. (2)	Written Notices. (3)	Prosecutions (4)
Factories (Including Factory Laundries.)	165	26	..
Workshops (Including Workshop Laundries.)	3,438	94	..
Workplaces (Other than Outworkers' premises included in Part 3 of this Report.)	..	..	..
Total	3,603	120	..

2.—Defects Found in Factories, Workshops, and Workplaces.

Particulars. (1)	Number of Defects.			Number of Prosecutions. (5)
	Found. (2)	Remedied. (3)	Referred to H.M. Inspector. (4)	
*Nuisances under the Public Health Acts:—**				
Want of Cleanliness	207	192	..	..
Want of Ventilation	43	41	..	..
Overcrowding	..	..	..	..
Want of drainage of floors	..	..	..	..
Other nuisances	117	113	..	..
†Sanitary accommodation — insufficient	4	4	..	..
†Sanitary accommodation — unsuitable or defective	128	120	..	..
†Sanitary accommodation — not separate for sexes	2	2	..	..
Offences under the Factory and Workshop Acts:—				
Illegal occupation of underground bakehouse (S. 101)	..	..	..	..
Breach of special sanitary requirements for bakehouses (SS. 97 to 100)	145	145	..	..
Other offences (Excluding offences relating to outwork which are included in Part 3 of this Report.)	28	28	..	..
Total	674	645	..	..

* Including those specified in sections 2, 3, 7 and 8, of the Factory and Workshop Act. 1901, as remediable under the Public Health Acts.

† Section 22 of the Public Health Acts Amendment Act, 1890, has been adopted by the Nottingham City Council, but the standard of sanitary accommodation enforced is that of the Sanitary Accommodation Order of the Home Office, dated 4th February, 1903.

3.—Home Work.

Nature of Work.	Outworkers' Lists, Section 107.									Outwork in Unwholesome Premises, Section 108.			Outwork in Infected Premises, Sections 109, 110.		
	Lists received from Employers.						Notices served on Occupiers as to keeping or sending lists.	Prosecutions.							
	Sending twice in the year.			Sending once in the year.				Failing to keep or permit inspection of lists.	Failing to send lists.	Instances.	Notices served.	Prosecutions.	Instances.	Orders made (S. 110).	Prosecutions (Sections 109,110)
	Lists.†	Outworkers.†		Lists.	Outworkers.										
		Contractors	Workmen.		Contractors	Workmen.									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Wearing Apparel—making, &c...	118	549	948	7	5	70	92	..	..	..	..	..	23	23	..
Lace, lace curtains and nets ..	699	702	4291	109	53	919	500	..	..	..	..	..	35	35	..
Paper, etc., boxes, paper bags ..	2	..	8	..	..	..	..	..	..	..	..	..	..	..	..
Total	819	1251	5247	116	58	989	592	..	..	..	..	..	58	58	..

† The figures required in columns 2, 3 and 4 are the *total* number of the lists received from those employers who comply strictly with the statutory duty of sending *two* lists each year, and of the entries of names of outworkers in those lists. The figures in columns 3 and 4 will usually be (approximately) double of the number of individual outworkers whose names are given, since in the February and August lists of the same employer the same outworker's name will often be repeated.

4.—Registered Workshops.

Workshops on the Register (s. 131) at the end of the year. (1)	Number. (2)
Important classes of workshops, such as workshop bakehouses, may be enumerated here. — Bakehouses (including 26 underground)	170
Workshops occupied by the following traders and workers:—	
Boot and Shoe Makers, 70; Blacksmiths, 35; Dressmakers and Milliners, 196; Hosiery Finishers, 16; Hat Shape Makers, 4; Joiners and Cabinet Makers, 68; Lace Clippers, 23; Lace Warehousemen, 240; Launderers (m. and f.), 10; Plumbers 26; Saddlers, 16; Sugar Boilers, 6; Tailors, 118; other less Typical Traders, 421 = Total of ..	1,249
Total number of Workshops on Register ..	1,419

5.—Other Matters.

Class. (1)	Number. (2)
Matters notified to H.M. Inspector of Factories:—	
Failure to affix Abstract of the Factory and Workshop Acts (S. 133, 1901)	8
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Acts, (S. 5, 1901) .. .. — Notified by H.M. Inspector ..	61
— Reports (of action taken) sent to H.M. Inspector ..	61
Other	7
Underground Bakehouses (S. 101):—	
Certificates granted during the year	..
In use at the end of the year	32

(Signature) PHILIP BOOBBYER, *Medical Officer of Health.*

NOTE.—The Factory and Workshop Act, 1901 (s. 132), requires the Medical Officer of Health in his Annual Report to the District Council to report specifically on the administration of that Act in workshops and workplaces, and to send a copy of his Annual Report, or so much of it as deals with this subject, to the Secretary of State (Home Office). If the annual report is presented otherwise than in print, it is unnecessary to include in the copy sent to the Home Office the portions which do not relate to factories, workshops, workplaces or homework. The duties of Local Authorities and the Medical Officer of Health under the Act of 1901 are detailed in the Home Office Memorandum of March, 1912.

NOTTINGHAM, 1913.

Abatement of Nuisances (in Districts).

Description of Work Done.	Inspector Womersley, Cert. R. San. I.	Inspector Old.	Inspector Leavers, and Inspector Peach, Certs. R. San. I.	Inspector Richardson, Cert. R. San. I.	Inspec. Sutton, & Inspec. Leavers, Certs. R. San. I.	Totals.
Houses Repaired	53	41	46	44	..	184
,, Cleansed	6	..	21	19	..	46
,, Overcrowding of, Abated	..	7	5	8	..	20
Bath Wastes Disconnected ..	..	1	2	10	..	13
,, Trapped	..	2	..	2	..	4
Sink Wastes Disconnected ..	1	2	1	..	..	4
,, Trapped	..	..	..	..	..	..
Drains Repaired..	72	117	127	108	..	424
,, Trapped	27	112	97	218	..	454
Water-Closets Repaired, &c. ..	24	12	41	34	..	111
Waste-Water-Closets Repaired, &c.	9	23	17	47	..	96
Pail-Closets Repaired	244	37	233	161	..	675
,, Abolished	181	99	122	124	..	526
Ashpits Abolished	9	111	20	39	..	169
Privies Abolished	..	156	19	25	..	200
Water-Closets provided in lieu of Privies	..	170	15	21	..	206
Water-Closets provided in lieu of Pail-Closets	203	114	133	131	..	581
Soft-water Cisterns Cleansed ..	..	1	3	8	..	12
,, ,, Abolished ..	1	5	4	4	..	14
Courts and Yards Paved ..	94	126	68	82	..	370
Nuisances from Pigs Abated ..	1	10	7	11	..	29
Stables, etc., Drained	2	10	4	3	..	19
Cowsheds Cleansed, Lime-washed, Repaired, &c. ..	..	..	..	..	116	116
Urinals Repaired, etc.	4	..	3	4	..	11
Manure-Pits Repaired, etc. ..	1	2	6	2	1	12
Offensive Accumulations Removed	24	42	20	47	..	133
Miscellaneous	279	160	306	288	29	1062
Totals	1235	1360	1320	1440	246	5601

APPENDIX A.

The following statistics of the Sanitary Depôts are furnished by Mr. John Terry, Wharf Manager :—

Number of pail-closets, 34,084.

All pails of galvanized steel.

Each pail scavenged on average 68·1 times per annum.

Number of closet-pails and ash-bins in use, refuse sold as manure and destroyed, respectively, rate of wages, net expenditure, and population served, 1902-1913.

Year.	No. of Closet Pails.	No. of Dry Ashes Bins.	Tons Sold to Farmers	Tons Destroyed.	Rate of Wages.		Net Expenditure.	Population.
					Day.	Night	£	
1902	37,617	12,190	52,320	..	*24/-	*28/-	32,007	243,191
1903	37,432	14,242	54,845	11,215	,,	,,	31,322	245,985
1904	37,225	16,096	54,071	38,628	,,	,,	33,268	248,811
1905	37,048	17,564	51,536	31,979	25/3	28/-	34,043	251,677
1906	36,886	19,200	48,351	32,115	,,	,,	†34,971	254,567
1907	36,697	20,666	41,625	40,553	,,	,,	34,638	257,492
1908	36,531	22,284	38,712	39,598	,,	,,	33,325	260,449
1909	36,313	23,749	37,103	42,954	,,	,,	33,480	263,441
1910	36,015	25,518	35,272	45,830	,,	,,	35,181	266,466
1911	35,606	26,607	39,148	39,951	26/3	28/-	35,444	260,447
1912	34,973	28,051	38,280	43,739	26/6	29/3	35,340	264,735
1913	34,084	29,955	38,349	41,459	,,	,,	‡35,649	266,918

* *Sunday stable duties abolished and separate staff engaged.*

† *Week Annual Holiday established.* ‡ *Insurance Act.*

Number of loads of ashpit and cesspool refuse removed, 1902-1913.

1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
7933	8031	6473	5655	5362	5533	5977	5646	5409	5345	4467	4156

Number of Loads Collected in each district, 1902-1913.

	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
NOTTINGHAM: –												
Pail-Closets	71,282	70,876	70,358	69,060	68,579	67,519	66 830	66,023	65,333	63,683	62,780	60,904
Night Ashpits	2,148	1,758	1,293	1,325	1,161	1,138	958	983	687	601	447	360
D. A. Pits and D. A. Bins	11,000	11,673	11,658	12,016	12,482	12,959	13,116	13,071	13,264	13,426	16,132	15,959
Slaughter-house ..	1,060	918	964	970	975	981	990	991	974	970	1,035	975
Pot Carts	2,215	2,421	2,515	2,582	2,608	2,643	2,662	2,658	2,625	2,606	—	——
BASFORD and BULWELL:—												
Pail-Closets	30,398	30,543	30,668	30,332	30,286	25,103	21,655	21,175	20,950	20,782	20,652	20,500
Night Ashpits	1,037	2,047	2,032	1,648	1,597	1,273	1,190	1,134	1,035	1,243	819	514
D.A. Bins	5,035	6,346	5,603	5,806	6,705	6,776	6,038	5,989	6,703	7,030	7,478	8,023
RADFORD and LENTON:—												
Pail-Closets	22,951	22,966	22,906	22,580	22,588	27,270	30,284	30,109	29,974	29,664	29,687	29,196
Night Ashpits	2,426	2,003	1,507	939	817	699	553	270	576	442	293	301
D. A. Bins			1,772	2,026	2,442	2,752	4,044	4,663	4,766	4,811	5,028	5,029
TOTALS	149,552	151,551	151,276	149,284	150,240	149,113	148,320	147,066	146,887	145,253	144,351	141,761
WEEKLY AVERAGES	2,876	2,914	2,909	2,871	2,889	2,867	2,852	2,828	2,824	2,793	2,776	2,726

Number of Wagons and Trucks, with Average Weights sent out, 1902-1913.

	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
No. of Wagons sent out ..	3,151	3,130	3,142	3,289	3,009	2,041	2,229	1,999	1,726	2,431	1,526	2,093
	T. C. Q.	T. C. Q.	T. C. Q.	T. C. Q	T. C. Q.	T. C. Q.	T. C. Q.	T. C. Q.	T. C. Q.	T. C. Q.	T. C. Q.	T. C. Q.
Average Weight per Wagon	8 2 2	8 3 0	8 2 1	8 3 0	8 1 0	8 2 3	8 7 0	8 6 1	8 8 0	8 8 2	8 11 3	8 8 2
No. of Boats sent out ..	580	613	491	415	492	648	445	521	500	408	562	390
	T. C. Q.	T. C. Q.	T. C. Q.	T. C. Q.	T. C. Q	T. C. Q.	T. C Q	T. C. Q.	T. C. Q.	T. C. Q.	T. C. Q.	T. C. Q.
Average Weight per Boat..	29 3 2	29 13 3	29 17 0	28 9 3	28 19 0	28 13 3	28 0 1	27 4 1	28 12 3	28 3 0	27 12 2	27 11 3

The whole of the refuse received at the Eastcroft (excepting that from pail-closets) is weighed, and the figures for the past seven years are as follow :—

	1907	1908	1909	1910	1911	1912	1913
	Tons	Tons	Tons	Tons	Tons	Tons	Tons
Dry Ashes	14,887	15,017	15,616	15,951	15,649	16,519	16,686
Wet Ashpit Refuse ..	1,103	854	655	556	458	318	250
Trade Refuse (General)	3,603	2,867	3,178	3,377	3,338	3,352	3,772
Trade Refuse (Butchers, &c.) ..	2,588	2,382	2,475	2,296	2,222	2,239	2,049
Ashes and Nightsoil from Basford ..	7,817	6,994	8,492	9,870	8,732	9,969	9,657
Nightsoil from Radford	—	899	1,194	1,221	165	—	59
Totals ..	29,998	29,013	31,610	33,271	30,564	32,427	32,473

In dealing with the refuse the following materials have been collected from it and sold, realizing the sum of £505 2s. 8d. as against £726 7s. 4d. in 1912, £777 13s. 11d in 1911, and £456 9s. 5d. in 1910.

	Tons.	Cwts.	Qrs.
Solder (recovered from old tins) ..	0	6	0
Light tins (from solder furnace) ..	182	14	0
Light iron	2	2	0
Galvanised Scrap	129	17	0
Heavy Scrap	10	13	1
Enamelled Ware	—	—	—

HORSES.

Total number of horses, 1st January, 1913	115
Disposed of during 1913	14
Died during 1913	—
Purchased during 1913	14
Number of Horses, 31st December, 1913 ..	115

VEHICLES, Etc.

63 drays, 63 carts, 13 wagons, 1 pony-float, 1 pony-barrow, 28 railway trucks, and 7 canal boats.

APPENDIX B.

Mothers' and Babies' Welcomes and Dining Centres' Data for Summer "Season," 1914.

	Attendances.	Dinners.	New Babies.	Children over one year.
MAY				
Howard Street	531	181	31	32
Radford	1,156	221	76	164
London Road	809	229	41	55
TOTAL	2,496	631	148	251
JUNE				
Howard Street	537	174	41	41
Radford	1,096	194	79	190
London Road	711	201	37	44
TOTAL	2,344	569	157	275
JULY				
Howard Street	725	249	61	58
Radford	1,105	290	86	134
London Road	786	228	48	122
TOTAL	2,616	767	195	314
AUGUST				
Howard Street	886	484	60	93
Radford	1,543	739	76	129
London Road	1,016	445	51	120
King's Meadow Road	—	298	—	—
North Street, Sneinton	—	133	—	—
Palm Street, Basford	—	212	—	—
TOTAL	3,445	2,311	187	342
SEPTEMBER				
Howard Street	2,804	2,240	70	59
Radford	3,440	2,487	90	161
London Road	2,253	1,606	56	133
King's Meadow Road	—	1,758	—	—
North Street, Sneinton	—	1,475	—	—
Palm Street, Basford..	—	1,853	—	—
TOTAL	8,897	11,419	216	353

INDEX.