[Report 1904] / Medical Officer of Health, Nottingham City.

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CITY OF NOTTINGHAM.

ANNUAL HEALTH REPORT

FOR

1904,

BY

PHILIP BOOBBYER, M.D.,

MEDICAL OFFICER OF HEALTH,

MEDICAL SUPERINTENDENT OF ISOLATION HOSPITALS.

Nottingham

THOS. FORMAN AND SONS, SHERWOOD STREET.

CITY OF NOTTINGHAM.

1904—1905.

HEALTH COMMITTEE.

ALDERMAN BRIGHT, J.P., MAYOR.

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ALDERMAN MUTCH, M.D.

Vice-Chairman:

COUNCILLOR SAMBORNE COOK.

ALDERMAN BENNETT.
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" FLEEMAN.
COUNCILLOR LLOYD.
" MARLOW.
" PENDLETON.
" ROBERTS, M.B.
" SIM, M.D.
" TUSTIN,
" J. WHITE.

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

GENTLEMEN,

I have now the honour of laying before you, in my report for 1904, my 16th Annual Report as Medical Officer of Health for Nottingham.

In popular estimation, doubtless, the most important item in the record of the Health Department during the past year has been the small-pox outbreak, and viewed in its potential aspect this opinion may be justified, but in actuality it certainly is not. The total number of cases was but 308, and the deaths 10, but in an only half-vaccinated community like our own, there is always a possibility of an outbreak getting beyond control, and the knowledge of what this has sometimes meant in other places is sufficient to account for the popular dread of the disease. Compulsory re-vaccination, the one thing needful to reduce small-pox to a negligible quantity, is still apparently far away.

The ordinary vital statistics of the City for 1904 are fairly satisfactory.

The birth-rate, 27·7 per 1,000 living, was the lowest on record, and marks in this regard the further progress of Malthusian tendencies.

The crude death-rate, 17·34 (according to my returns), is higher than that for 1903, but still a low rate, being almost identical with the mean rate for the 76 great towns. The infant death-rate per 1,000 annual births was equal to 176, which, though 11 per 1,000 higher than in 1903, is considerably below the average rate for the preceding 10 years. More than a fourth of this rate, however, is due to infantile diarrhœa, and a fifth to preventible lung diseases, and most of the victims of both these death-causes are children of the poor. It is obvious, therefore, that much remains to be done in the way of protecting the most defenceless, and at the same time the most prospectively important section of the community against preventible disease.

The death-rate from the 7 principal epidemic diseases of the Registrar-General's returns was equal to 2·58 per 1,000 living, a rate more than 25 per cent. in advance of that for 1903. The increase as compared with the rate of 1903 is largely due to the greater fatality of diarrhœal diseases, the death-rate of these having advanced by more than 100 per cent.

The deaths during the 12 months from tuberculous diseases numbered 472, and were equal to a death-rate per 1,000 living of 1·90, the highest local rate recorded since 1900—when it was 2·02. The yearly toll of deaths from tubercle is still rather more than $\frac{1}{10}$th of the total mortality from all causes, and the ratio unfortunately advances from early youth onwards to full adult life.

The work called for and accomplished in all sections of the Health Department continues to grow

unceasingly, the latest serious addition to our responsibilities being the supervision of midwives.

Among the more pressing sanitary requirements of the City at the present time, I would give special prominence to the following :—

(1) The conversion of the system of pail-closets to one of w.c's.

(2) The construction of public abattoirs. At the outset, however, only such an establishment of this kind is called for as would meet the existing needs of the trade (as regards slaughtering accommodation), and illustrate without extravagant outlay the advantages of the abattoir system.

(3) The establishment of depôts for the preparation and sale of clean milk. This can be undertaken as well by private as by public enterprise, but an antecedent condition essential to commercial success (in either case) is the stricter enforcement by the Corporation of the Regulations made under the Dairies, Cowsheds, and Milkshops Orders forbidding the preparation, storage, and sale of milk in unfit places.

(4) The provision of hospital accommodation for necessitous consumptive cases occurring among the non-pauper working classes. Such accommodation is already available in the existing temporary buildings upon the Bagthorpe Hospital enclosure, which were used for small-pox prior to the opening of the Hospital on Bulwell Forest.

PHILIP BOOBBYER.

TABLE I.

Nottingham. Population, Inhabited Houses, Marriages, Births and Deaths for 1904, and for the 10 years 1894-1903.

	Estimated Population.	Inhabited Houses.	† Marriages	Births.	Deaths.			Deaths in Public Institutions.
					Total at all ages.	Under One Year.	Under 5 Years.	
1904	248,811	58,000	2057	6880	4314	1239	1666	816
1903	245,985	56,784	2287	6945	4063	1144	1590	789
1902	243,191	55,240	2256	6867	4118	1101	1382	666
1901	240,438	53,107	2255	6801	4346	1330	1774	791
1900	*237,770	52,537	2153	6731	4555	1314	1811	770
1899	239,384	53,052	2037	6910	4689	1470	1954	802
1898	236,137	52,051	1912	6796	4058	1209	1689	636
1897	232,935	...	1895	6742	4277	1362	1869	587
1896	229,775	...	1749	6758	3987	1136	1709	594
1895	226,659	...	1658	6717	4195	1269	1640	522
1894	223,584	...	1635	6373	3728	1108	1609	547
Average of the *ten* years 1894-1903.	235,586	...	1984	6764	4201	1244	1703	670

* Retrospective estimate based upon Census Return of April, 1901.

Estimates for years 1893—1899 based upon hypothesis that rate of increase between 1881 and 1891 had continued during succeeding decennium.

† The returns of Marriages, from June 1899 onwards, are for the entire municipal area—the new Parish of Nottingham: prior to this, they did not include those of Bulwell, Basford, and North Wilford.

TABLE II.

Nottingham. Annual Rates for 1904, and the 10 years 1894-1903.

	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.
1904	27·7	17·34	176	287	386	189
1903	28·3	16·5	165	282	391	194
1902	27·8	16·7	159	267	336	190
1901	28·3	18·1	196	306	408	182
1900	28·3	19·2	196	288	398	169
1899	28·8	19·6	213	313	417	168
1898	28·8	17·2	178	298	416	157
1897	28·9	18·4	202	318	437	137
1896	29·4	17·5	168	278	418	145
1895	29·7	18.5	189	302	391	139
1894	28·6	16·7	174	336	432	147
Average of the *ten* years 1894-1903.	28·69	17·84	184	299	404	163

TABLE III.

Schedule A—Nottingham. 1904. Deaths Registered from all causes.

No.	DISEASES.	AGES.													ALL AGES.
		0–	1–	5–	10–	15–	20–	25–	35–	45–	55–	65–	75–	85–	
1	Small-pox														
	(*a*) Vaccinated ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	(*b*) Unvaccinated ..	1	..	..	..	..	..	..	..	..	..	..	..	..	1
	(*c*) No Statement ..	5	1	1	1	..	..	1	1	1	..	..	..	..	11
2	Measles	9	31	4	..	..	..	..	..	..	..	..	..	..	44
3	Scarlet Fever	..	10	14	3	..	1	1	..	..	..	..	..	..	29
4	Typhus Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..
5	Epidemic Influenza ..	1	1	..	..	..	..	4	..	4	2	4	3	1	20
6	Whooping Cough ..	48	42	..	1	..	..	..	..	..	..	..	..	..	91
7	Diphtheria	8	23	33	2	1	..	1	1	..	..	..	..	..	69
8	Enteric Fever	1	3	2	4	7	9	12	8	6	3	2	..	..	57
9	Asiatic Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..
10	Diarrhœa, Dysentery ..	101	20	1	..	..	..	..	1	1	3	3	6	1	137
11	Epidemic Enteritis ..	190	19	..	..	..	..	..	..	..	..	..	..	..	209
12	*Other allied Diseases* ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
13	Varicella	2	..	..	..	..	..	..	..	..	..	..	..	..	2
14	Cerebrospinal Fever ..	..	..	..	1	1	..	..	1	..	..	..	..	..	3
15	Hydrophobia	..	..	..	..	..	..	..	..	..	..	..	..	..	..
16	Glanders	..	..	..	..	..	..	..	..	..	..	..	..	..	..
17	Tetanus	1	..	..	1	..	1	..	..	..	..	..	..	..	3
18	Anthrax	..	..	..	..	..	..	..	..	..	..	..	..	..	..
19	Cowpox	..	..	..	..	..	..	..	..	..	..	..	..	..	..
20	Syphilis	11	1	..	..	..	..	..	..	..	1	..	..	..	13
21	Gonorrhœa	..	..	..	..	..	..	..	..	..	..	..	..	..	..
22	Phagedæna	..	..	..	..	..	..	..	..	..	..	..	..	..	..
23	Erysipelas	1	1	..	..	1	..	1	..	..	1	..	..	..	5
24	Puerperal Fever	..	..	..	..	..	2	4	2	..	..	..	..	..	8
25	Pyæmia	1	..	1	..	1	1	..	1	..	4	1	..	..	10
26	Infective Endocarditis ..	..	..	..	..	..	..	..	2	..	..	..	..	..	2
27	*Other Allied Diseases* ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
28	Carbuncle	..	..	..	..	..	..	..	..	1	..	1	1	..	3
29	Septicæmia	..	..	..	..	..	1	..	..	..	..	..	..	..	1
30	Cancrum Oris	..	1	..	..	..	..	..	..	..	..	..	..	..	1
31	Rheumatic Arthritis ..	..	..	..	..	..	..	..	..	..	..	1	..	..	1
32	Phagedænic Tonsillitis ..	..	1	..	..	..	..	..	..	..	..	..	..	..	1
33	Malarial Fever	..	..	..	..	..	..	..	1	..	..	..	..	..	1
34	Rheumatic Fever ..	..	..	6	..	1	1	3	3	1	..	..	..	..	15
35	Rheumatism of Heart ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
36	Tuberculosis of Brain ..	16	28	8	3	1	..	..	..	1	..	..	..	..	57
37	Tuberculosis of Larynx	..	..	..	..	1	..	1	1	..	..	..	..	..	3
38	Phthisis	2	9	7	6	22	52	79	66	44	31	8	2	..	328
39	Abdominal Tuberculosis	19	22	3	3	..	2	3	..	1	..	..	..	..	53
40	General Tuberculosis ..	7	4	5	3	..	1	2	2	1	2	..	..	..	27
41	Other forms Tuberculosis	..	..	..	1	1	1	..	..	1	..	..	..	..	4
42	*Other Infective Diseases*	..	..	..	..	..	..	..	..	..	..	..	..	..	..
43	Pernicious Anæmia ..	..	..	..	..	..	..	..	..	..	..	1	..	..	1
44	Thrush	..	..	..	..	..	..	..	..	..	..	..	..	..	..
45	Actinomycosis	..	..	..	..	..	..	..	..	..	..	..	..	..	..
46	Hydatid Diseases ..	..	..	..	..	..	..	..	1	..	..	..	..	..	1
47	Scurvy	..	..	..	..	..	..	..	..	..	..	..	..	..	..
48	*Other Diseases due to Altered Food*	..	..	..	..	..	..	..	..	..	..	..	..	..	..
49	Acute Alcoholism ..	..	..	..	..	..	..	3	..	..	..	1	..	..	4
50	Chronic Alcoholism ..	..	..	..	..	..	..	1	2	6	1	2	..	..	12
	TOTALS	424	217	85	29	37	72	116	93	68	48	24	12	2	1227

TABLE III. Schedule A—continued.

No.	DISEASES.	AGES.													ALL AGES.
		0-	1-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75	85-	
51	*Chronic Industrial Poisonings*	..	..	..	..	..	..	..	..	..	..	..	..	..	..
52	*Other Chronic Poisonings*	..	..	..	..	..	..	..	..	..	..	..	..	..	..
53	Chronic Rheumatism	..	..	..	..	..	..	..	1	1	1	3	..	..	6
54	Addison's Disease	..	..	..	..	..	..	..	1	1	..	2	..	..	2
55	Pernicious Anæmia	..	..	..	..	..	..	1	..	2	..	..	..	..	3
56	Exopthalmic Goitre	..	..	..	..	1	..	..	..	..	..	1	..	..	2
57	Myxœdema	..	1	..	..	..	..	1	..	1	..	..	..	..	3
58	Splenic Leukæmia	..	..	..	..	..	..	..	..	1	..	..	..	..	1
59	Osteo-arthritis	..	..	..	..	..	..	..	..	..	..	..	..	..	..
60	Gout	..	..	..	..	..	..	..	..	..	1	1	..	..	2
61	Cancer	..	..	..	..	1	1	7	19	47	57	49	8	1	190
62	Sarcoma	..	..	..	..	..	1	2	1	3	2	2	1	..	12
63	Diabetes Mellitus	..	..	..	..	1	2	2	3	6	11	7	1	..	33
64	Purpura Hæmorrhagica	..	..	..	..	..	..	..	1	..	..	..	..	..	1
65	Hæmophilia	..	..	..	..	..	..	1	..	..	..	..	..	..	1
66	Anæmia	..	1	..	..	1	..	..	..	..	..	..	..	..	2
67	Lymphadenoma	..	2	1	..	..	..	..	1	..	..	..	..	..	4
68	Premature Birth	143	..	..	..	..	..	..	..	..	..	..	..	..	143
69	Injury at Birth	3	..	..	..	..	..	..	..	..	..	..	..	..	3
70	Debility at Birth	121	1	..	..	..	..	..	..	..	..	..	..	..	122
71	Atelectasis	15	..	..	..	..	..	..	..	..	..	..	..	..	15
72	*Congenital Defects*	14	1	..	..	..	..	..	..	..	..	..	..	..	15
73	Want of Breast Milk	2	..	..	..	..	..	..	..	..	..	..	..	..	2
74	Atrophy, Debility, Marasmus	110	11	1	..	..	..	..	..	..	..	..	..	..	122
75	Dentition	19	4	..	..	..	..	..	..	..	..	..	..	..	23
76	Rickets	8	9	1	..	..	..	..	..	..	..	..	..	..	18
77	Old Age, Senile Decay	..	..	..	..	..	..	..	..	..	2	55	104	32	193
78	Convulsions	39	6	..	..	..	..	..	..	..	..	..	1	..	46
79	Meningitis	17	8	1	..	3	..	3	1	..	1	..	..	..	34
80	Encephalitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..
81	Apoplexy	..	1	..	..	..	1	4	6	25	30	41	29	4	141
82	Softening of Brain	..	..	..	..	..	..	..	..	3	9	10	4	1	27
83	Hemiplegia	..	..	..	..	..	..	..	1	3	9	6	12	1	32
84	Genrl. Paralysis of Insane	..	..	..	..	..	1	1	10	6	3	3	..	..	24
85	Other forms of Insanity	..	..	..	.	..	..	1	..	1	5	8	11	3	29
86	Chorea	1	..	..	..	..	1	..	..	..	..	..	..	..	2
87	Cerebral Tumour	..	..	..	..	1	..	..	..	1	1	1	..	..	4
88	Epilepsy	..	..	..	1	2	2	4	3	3	3	..	1	..	19
89	Laryngismus Stridulus	..	..	..	..	..	..	..	..	..	..	..	..	..	..
90	Locomotor Ataxy	..	..	..	..	..	..	..	..	3	3	..	..	..	6
91	Paraplegia	..	..	..	..	2	..	..	3	1	2	4	..	..	12
92	*Otherforms, Brain Diseases*	3	..	1	1	..	2	..	4	3	4	5	1	..	24
93	Peripheral Neuritis	2	..	..	1	..	..	1	4	1	3	1	..	..	13
94	Idiocy	..	..	..	..	..	1	..	..	..	2	1	..	..	4
95	Otitis	2	3	1	..	1	2	2	2	..	..	..	..	..	13
96	Disease of Nose, Epistaxis	..	..	..	..	..	..	..	..	..	..	..	..	..	..
97	Diseases of Eye	..	..	..	..	..	..	..	..	..	..	..	..	..	..
98	Pericarditis	..	..	..	..	..	..	..	..	..	..	1	..	..	1
99	Endocarditis	..	3	5	11	7	9	22	45	49	31	7	1	..	190
100	Hypertrophy of Heart	..	..	..	..	..	..	..	..	..	..	..	..	..	..
101	Angina Pectoris	..	..	..	..	..	..	..	..	..	2	1	..	..	3
102	Aneurism	..	..	..	..	..	..	1	2	2	4	1	1	..	11
	TOTALS	499	51	11	14	20	23	53	108	163	186	208	175	42	1553

TABLE III. Schedule A—continued.

No.	DISEASES.	AGES.													All Ages.
		0-	1-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	85-	
103	Senile Gangrene.. ..	..	..	..	..	..	..	..	..	..	2	7	4	2	15
104	Embolism, Thrombosis..	..	..	..	..	..	..	2	2	2	1	6	1	1	15
105	Phlebitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..
106	Varicose Veins	..	..	..	..	..	..	..	..	..	..	..	..	..	..
107	*Other Diseases, Heart [and Vessels*	..	..	..	..	1	2	..	4	10	30	84	60	8	199
108	Laryngitis	3	2	4	..	..	..	..	3	..	..	2	..	..	14
109	Croup	1	3	1	..	..	..	..	..	..	..	..	..	..	5
110	*Other Diseases, Larynx [and Trachea*	..	..	..	..	..	..	..	..	..	..	..	..	..	..
111	Acute Bronchitis ..	64	41	2	..	..	..	5	8	5	13	21	7	..	166
112	Chronic Bronchitis ..	..	2	..	..	..	1	..	4	21	41	103	46	5	223
113	Lobar Pneumonia ..	4	4	3	1	..	2	5	7	5	3	4	1	..	39
114	Lobular Pneumonia ..	98	60	1	..	..	..	2	1	2	3	3	5	..	175
115	Pneumonia	10	9	3	2	2	5	1	11	19	13	15	4	1	95
116	Emphysema, Asthma ..	..	..	..	..	..	..	..	2	2	5	1	1	..	11
117	Pleurisy	3	..	..	..	..	1	1	1	5	1	1	1	..	14
118	*Other Diseases, Respiratory System*	..	..	..	..	..	5	..	1	2	1	..	..	..	9
119	*Diseases of Mouth and Annexa*..	2	..	..	..	..	..	..	..	..	..	..	..	..	2
120	Diseases of Pharynx ..	1	..	..	..	..	..	..	..	..	1	..	..	..	2
121	Diseases of Œsophagus	..	..	..	..	..	..	..	..	..	..	1	..	..	1
122	Ulcer of Stomach and Duodenum	..	..	..	..	1	1	3	1	..	..	..	1	..	7
123	Other Diseases of Stomach	17	1	..	..	..	..	1	1	1	..	5	2	..	28
124	Enteritis	59	4	..	1	..	1	1	..	3	2	2	1	..	74
125	Appendicitis	..	1	1	2	1	4	3	4	..	..	..	..	..	16
126	Obstruction of Intestine	4	..	1	..	..	1	..	1	..	1	1	3	..	12
127	Other Diseases of Intestine	..	..	..	..	..	..	..	..	1	1	..	..	..	2
128	Cirrhosis of Liver ..	..	..	..	..	..	..	2	7	10	11	5	..	..	35
129	Other Diseases of Liver	1	..	..	..	..	..	1	4	1	3	3	4	..	17
130	Peritonitis	2	1	..	1	..	2	..	1	..	3	1	2	..	13
131	*Other Diseases, Digestive System*	4	..	..	..	..	..	1	..	..	1	1	..	1	8
132	Hernia	1	1	..	..	..	..	1	2	2	2	2	2	1	14
133	*Diseases, Lymphatic System and Glands* ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
134	Addison's Disease ..	..	..	..	..	..	..	..	..	1	..	..	..	..	1
135	Acute Nephritis	3	7	1	..	2	3	1	3	2	..	..	..	..	22
136	Bright's Disease.. ..	..	1	..	..	..	..	3	7	17	24	17	5	..	74
137	Calculus	..	..	..	..	..	..	..	1	1	..	..	..	..	2
138	Diseases of Bladder and Prostate	..	..	..	..	..	..	..	1	..	1	2	4	2	10
139	*Other Diseases, Urinary System*	..	..	..	..	..	..	1	..	..	2	4	1	..	8
140	Diseases of Testis & Penis	..	..	..	..	..	..	..	..	..	..	..	..	..	..
141	Diseases of Ovaries ..	..	..	..	..	..	..	1	1	..	2	1	..	..	5
142	Diseases of Uterus and Appendages	..	..	..	..	1	..	4	1	..	1	1	..	..	8
143	Diseases of Vagina and External Genitals ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
144	Diseases of Breast ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
145	Abortion, Miscarriage ..	..	..	..	..	..	..	1	..	..	..	..	..	..	1
	Totals	277	137	17	7	8	28	40	79	112	168	293	155	21	1342

TABLE III. Schedule A—continued.

No.	DISEASES.	AGES.													ALL AGES.
		0-	1-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75-	85-	
146	Puerperal Mania ..	..	..	..	..	..	..	1	..	..	..	..	..	..	1
147	Puerperal Convulsions ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
148	Placenta Prævia, Flooding	..	..	..	..	..	..	3	2	..	..	..	..	..	5
149	Puerperal Thrombosis ..	..	..	..	..	..	..	1	..	..	..	..	..	..	1
150	*Other Diseases, Pregnancy [and Childbirth*	..	..	..	..	..	1	3	4	1	..	..	..	..	9
151	Arthritis, Ostitis, Periostitis	..	..	..	2	..	..	..	..	..	1	1	..	1	5
152	*Other Diseases, Osseous [System*	..	..	..	..	..	..	..	..	..	..	..	..	..	..
153	Ulcer, Bedsore	..	..	..	..	..	..	..	..	..	..	..	..	..	..
154	Eczema	3	1	..	..	..	..	..	..	..	..	..	..	..	4
155	Pemphigus	1	..	..	..	..	..	..	..	..	1	..	..	..	2
156	*Other Diseases, Integu- [mentary System*	..	..	..	..	..	..	..	..	..	..	..	..	..	..
157	*Accidents and Negligence:*														
158	In Mines and Quarries..	..	..	..	1	..	..	..	..	..	1	1	..	..	3
159	In Vehicular Traffic ..	..	1	2	..	..	..	..	1	2	1	1	..	..	8
160	On Railways	..	..	..	1	..	4	3	1	..	..	..	..	..	9
161	On Ships, Boats, &c. (not drowning)	..	..	..	..	..	..	..	..	..	..	..	..	..	..
162	In Building Operations	..	..	..	..	..	1	..	..	..	..	..	..	..	1
163	By Machinery	..	..	..	1	..	1	..	..	..	..	..	..	..	2
164	By Weapons & Implements	..	..	..	..	..	..	..	..	..	..	..	..	..	..
165	Burns and Scalds ..	..	10	2	1	..	..	..	2	..	..	..	1	1	17
166	Poisons, poisonous vapours	..	1	1	1	..	..	..	..	1	1	..	..	..	5
167	Surgical Narcosis ..	..	..	..	..	..	..	1	..	..	..	..	..	..	1
168	Effects of Electric Shock	..	..	..	..	..	..	..	..	..	..	..	..	..	..
169	Corrosions by Chemicals	..	..	..	..	..	..	..	..	..	..	..	..	1	1
170	Drowning	..	3	3	..	2	..	..	2	..	1	..	..	..	11
171	Suffocation, Overld. in Bed	17	..	..	..	..	..	..	..	..	..	..	..	..	17
172	„ Otherwise ..	6	..	..	..	..	..	..	..	..	1	..	..	..	7
173	Falls not specified ..	..	2	4	..	1	1	1	3	3	3	2	5	1	26
174	Weather Agencies ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
175	Otherwise, not stated ..	1	..	..	..	..	..	1	..	..	..	..	..	..	2
176	Homicide	1	..	..	..	..	..	..	..	..	..	..	..	..	1
177	*Suicides*:—By Poison ..	..	..	..	..	..	1	1	..	3	1	1	..	..	7
178	By Asphyxia	..	..	..	..	..	..	..	..	..	..	..	..	..	..
179	By Hanging & Strangulatn.	..	..	..	..	..	..	2	1	1	3	..	..	1	8
180	By Drowning	..	..	..	..	1	2	..	..	1	2	..	..	..	6
181	By Shooting	..	..	..	..	..	..	..	..	..	..	..	..	..	..
182	By Cut or Stab	..	..	..	..	..	..	1	..	1	..	2	..	..	4
183	By Precipitation from Elevated Places ..	..	..	..	..	..	..	..	1	..	1	..	..	..	2
184	By Crushing	..	..	..	..	..	..	..	..	..	..	..	..	..	..
185	By other and unspecified methods	..	..	..	..	..	..	..	..	..	..	..	..	..	..
186	Execution	..	..	..	..	..	..	..	..	..	..	..	..	..	..
187	Sudden Death, cause not ascertained [fied causes	..	..	..	..	..	..	..	..	..	..	..	..	..	..
188	Ill defined and unspeci-	..	..	..	..	..	..	..	..	..	..	..	..	..	..
189	Uncertified	10	..	..	..	..	..	..	2	1	3	7	4	..	27
	TOTALS, Page 11 ..	39	18	12	7	4	11	18	19	15	19	15	10	5	192
	TOTALS, Page 10 ..	277	137	17	7	8	28	40	79	112	168	293	155	21	1342
	TOTALS, Page 9 ..	499	51	11	14	20	23	53	108	163	186	208	175	42	1553
	TOTALS, Page 8 ..	424	217	85	29	37	72	116	93	68	48	24	12	2	1227
	GRAND TOTALS ..	1239	423	125	57	69	134	227	299	358	421	540	352	70	4314

Schedule B.—Nottingham. 1904. 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	12	6	1	2	..	3	..	11
2	Measles	44	9	31	4	..	..	..	..
3	Scarlet Fever	29	..	10	17	1	1	..	9
4	Typhus Fever	..	..	..	..	..	..	..	..
5	Epidemic Influenza	20	1	1	..	..	10	8	..
6	Whooping-cough	91	48	42	1	..	..	..	..
7	Diphtheria, Membranous Croup	69	8	23	35	1	2	..	18
8	Croup	..	..	..	..	..	..	..	..
9	Enteric Fever	57	1	3	6	16	29	2	23
10	Asiatic Cholera	..	..	..	..	..	..	..	..
11	Diarrhœa, Dysentery	137	101	20	1	..	5	10	6
12	Epidemic or Zymotic Enteritis	209	190	19	..	..	..	..	..
13	Enteritis	74	59	4	1	1	6	3	..
14	*Other continued Fevers*	..	..	..	..	..	..	..	..
15	Erysipelas	5	1	1	..	1	2	..	1
16	Puerperal Fever	8	..	..	..	2	6	..	..
17	*Other septic diseases*	..	..	..	..	..	..	..	..
18	Intermittent Fever and Malarial Cachexia	..	..	..	..	..	..	..	..
19	Tuberculosis of Meninges ..	57	16	28	11	1	1	..	6
20	Tuberculosis of Lungs	328	2	9	13	74	220	10	68
21	Other forms of Tuberculosis ..	4	..	..	1	2	1	..	..
22	Alcoholism	16	..	..	..	4	9	3	2
23	Cancer	190	..	..	..	2	130	58	32
24	Premature Birth	143	143	..	..	..	..	..	2
25	Developmental Diseases	..	..	..	..	..	..	..	..
26	Old Age	193	..	..	..	..	2	191	43
27	Meningitis	34	17	8	1	3	5	..	1
28	Inflammation and Softening of Brain	27	..	..	..	..	12	15	15
29	Organic Diseases of Heart ..	389	..	3	16	19	191	160	98
30	Acute Bronchitis	166	64	41	2	..	31	28	13
31	Chronic Bronchitis	223	..	2	..	1	66	154	46
32	Lobar (Croupous) Pneumonia ..	39	4	4	4	2	20	5	15
33	Lobular (Broncho)Pneumonia ..	175	98	60	1	..	5	11	10
34	Diseases of Stomach	35	17	1	..	2	7	8	4
35	Obstruction of Intestines ..	12	4	..	1	1	2	4	4
36	Cirrhosis of Liver	35	..	..	..	..	30	5	5
37	Nephritis and Bright's Disease ..	96	3	8	1	5	57	22	15
38	Tumours and other Affections of Female Genital Organs ..	13	..	..	..	1	10	2	5
39	Accidents and Diseases of Parturition	17	..	..	..	1	16	..	..
40	Deaths by Accident or Negligence	113	28	18	19	..	2	15	31
41	Deaths by Suicide	27	..	..	..	4	19	4	4
42	Deaths from Ill-defined Causes ..	..	..	..	..	..	..	..	..
43	All other Causes	1227	409	90	31	51	382	244	217
	ALL CAUSES	4314	1239	427	168	204	1304	962	714

TABLE IV.

Nottingham, 1904. 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 ...	648	2·60	157
2. Pulmonary Diseases	732	2·94	170
3. Tuberculous Diseases	472	1·90	109
B. Infants under 1 year of Age.	Deaths.	Deaths per 1000 *Births.*	Deaths per 1000 *Deaths under 1 year.*
4. Wasting Diseases ...	403*	58·6	325
5. Convulsive Diseases	75	10·9	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 Phthisis, Scrofula, Tuberculosis, and Tabes Mesenterica.
4. Includes Marasmus, Atrophy, Wasting, Debility, Inanition, Premature Birth, and Improper Feeding.
5. Includes Infantile Meningitis, Convulsions, and Dentition.

* The increase in this total, as compared with the figures of previous years, is due in great measure to changes in classification.

TABLE V.

Nottingham. Deaths from the Principal Zymotic Diseases in the ten years 1894-1903, and in the Year 1904.

Disease.	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	Ten Years, 1894-1903, Annual Average.	Ten Years, 1894-1903, Proportion of Deaths to 1000 Deaths.	1904. Deaths.	1904. Proportion of Deaths to 1000 Deaths.
Small-pox	4	..	..	..	..	..	..	..	..	2	0·6	0·143	12	2·78
Measles	134	1	203	49	104	140	45	96	4	98	87·4	20·8	44	10·20
Scarlet Fever	49	50	27	34	33	53	55	11	23	34	36·9	8·78	29	6·72
Diphtheria	22	11	12	21	23	30	28	29	31	60	26·7	6·36	69	15·99
Whooping-Cough	119	33	91	117	59	55	103	96	37	90	80·0	19·0	91	21·09
Fevers. Typhus	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fevers. Enteric	61	55	75	45	54	114	75	79	50	36	64·4	15·3	57	13·21
Fevers. Simple Continued ..	..	..	..	1	1	4	1	1	..	..	0·8	0·19	..	..
Diarrhœa	152	444	177	530	385	600	387	361	194	166	339·6	80·8	316	80·20
Total	541	594	585	797	659	996	694	673	339	486	636·4	151·5	648	150·65
Total, London	11,549	11,544	14,100	11,525	12,565	11,228	10,136	10,203	10,393	8,166	11,141	135·4	9,990	129·63
Total, England & Wales	52,771	64,901	66,936	67,051	69,714	69,820	64,059	66,531	53,795	49,150	62,473	114·4	65,633	119·5

Birth-Rate, Death-Rate, Infantile Death-Rate, and Death-Rate from Zymotic Diseases and Phthisis.

(Registrar-General.)

I. NOTTINGHAM.

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

	Birth-Rate.	Death-Rate.	Infantile Death-Rate	DEATH-RATE FROM 7 Princp. Zymotic Diseases.	Small-Pox.	Measles.	Scarlet Fever.	Diphtheria.	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	1·29	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

II. ENGLAND AND WALES.

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

												Phthisis only.
1858—1860	34·3	22·2	153	4·03	0·22	0·48	0·89	0·37	0·49	0·79	0·78	2·57
1861—1865	35·1	22·6	151	4·22	0·22	0·46	0·98	0·25	0·52	0·92	0·87	2·53
1866—1870	35·3	22·4	159	4·08	0·10	0·43	0·96	0·13	0·55	0·85	1·06	2·45
1871—1875	35·5	22·0	153	3·76	0·41	0·37	0·76	0·12	0·50	0·60	1·00	2·22
1876—1880	35·4	20·8	144	2·94	0·01	0·39	0·68	0·12	0·53	0·38	0·83	2·04
1881—1885	33·4	19·3	139	2·32	0·01	0·41	0·43	0·16	0·46	0·27	0·65	1·82
1886—1890	31·4	18·9	145	2·25	0·01	0·46	0·24	0·17	0·44	0·20	0·66	1·63
1891	31·4	20·2	149	2·70	0·00	0·43	0·17	0·17	0·46	0·16	0·46	1·60
1892	30·5	18·9	148	2·78	0·01	0·46	0·19	0·22	0·45	0·14	0·50	1·47
1893	30·8	19·2	159	3·16	0·05	0·37	0·23	0·31	0·34	0·23	0·95	1·47
1894	29·6	16·6	137	2·25	0·02	0·39	0·16	0·29	0·41	0·16	0·36	1·38
1895	30·3	18·7	161	2·14	0·00	0·38	0·15	0·26	0·32	0·18	0·87	1·40
1896	29·7	17·1	148	2·18	0·02	0·56	0·18	0·29	0·41	0·17	0·55	1·31
1897	29·7	17·4	156	2·15	0·00	0·40	0·14	0·24	0·35	0·16	0·86	1·34
1898	29·4	17·6	161	2·22	0·01	0·41	0·11	0·24	0·31	0·18	0·96	1·32
1899	29·3	18·3	163	2·21	0·01	0·31	0·12	0·29	0·30	0·20	0·98	1·34
1900	28·9	18·3	154	2·00	0·00	0·39	0·12	0·29	0·34	0·17	0·69	1·33
1901	28·5	16·9	151	2·05	0·01	0·27	0·13	0·27	0·30	0·16	0·91	1·26
1902	28·6	16·3	133	1·64	0·08	0·38	0·15	0·23	0·29	0·13	0·38	1·23
1903	28·4	15·4	132	1·46	0·02	0·27	0·12	0·18	0·27	0·10	0·50	1·20
1904	27·9	16·2	146	1·94	0·01	0·36	0·11	0·17	0·34	0·09	0·86	..

Principal Vital Statistics of the 76 Greater English Towns for 1904 (taken from the Registrar-General's Quarterly Reports and Annual Summary).

Populations estimated to middle of 1904 (from increase during Decennium, 1891-1901).

	Populations estimated to middle of 1904.	Birth-Rate.	Recorded Death-Rate.	Corrected Death Rate.	Death-Rates at Age Periods.			Death-Rate from seven principal epidemic diseases.	Percentage of uncertified Deaths.
					Deaths under one year per 1000 Births.	Deaths 1 to 60 years per 1000 living at those ages.	Deaths over 60 years per 1000 living at those ages.		
England & Wales	33,763,434	27·9	16·23	16·23	146	7·9	68·2	1·94	1·6
76 Large Towns ..	15,271,287	29·1	17·24	18·31	160	8·9	72·0	2·49	1·1
London	4,648,950	27·9	16·63	17·48	146	8·7	69·6	2·18	0·2
Croydon	144,419	26·0	13·80	14·15	130	6·1	65·1	1·42	—
Willesden ..	132,566	32·7	11·19	12·00	114	5·0	58·8	1·62	0·6
Hornsey	81,221	19·9	8·44	9·62	87	3·6	54·6	0·90	—
Tottenham ..	112,981	31·8	13·86	14·96	139	6·6	66·6	2·14	0·1
West Ham ..	288,424	32·3	16·45	17·59	162	8·4	72·5	3·43	0·2
East Ham ..	116,902	31·8	13·08	13·95	154	6·2	62·7	3·13	0·4
Leyton	110,844	28·7	12·67	13·03	143	5·9	51·8	2·56	1·4
Walthamstow ..	111,282	32·5	12·17	12·87	140	5·4	63·0	2·87	0·2
Hastings	66,503	17·4	13·16	12·65	108	5·8	61·5	0·40	0·3
Brighton	126,286	23·5	16·60	16·36	134	8·1	69·1	1·64	0·1
Portsmouth ..	198,038	28·3	16·88	17·30	142	8·6	68·3	2·13	1·1
Bournemouth ..	64,645	17·1	13·60	14·37	111	7·4	59·2	0·61	0·3
Southampton ..	112,500	26·8	13·74	13·66	115	6·4	64·9	1·08	—
Reading	76,373	26·1	13·85	14·33	133	6·2	67·9	1·80	2·1
Northampton ..	91,146	23·1	13·84	14·39	132	6·8	68·2	1·60	2·1
Ipswich	69,805	27·6	15·50	15·14	143	6·6	68·9	1·55	1·5
Great Yarmouth..	52,099	27·8	17·53	16·04	165	7·2	66·3	2·53	0·1
Norwich	115,538	27·6	18·23	17·41	180	8·1	70·5	2·91	0.7
Plymouth.. ..	114,003	25·4	18·54	18.08	172	9·5	66·4	2·53	0·1
Devonport ..	75,334	28.7	13·42	14·07	115	7·1	54·2	1·24	0·2
Bristol	343,204	26·7	15·62	16·03	134	7·8	68·3	1·64	0·4
Hanley	63,932	33·7	20·89	22·80	212	10·2	85·9	4·10	1·1
Burton-on-Trent..	51,934	25·9	15·02	16·14	118	8·1	75·7	1·33	1·3
Wolverhampton ..	98,194	29·9	15·48	16·01	155	7·3	64·2	2·71	0·6
Walsall	91,432	32·9	17·88	18·93	176	8·6	74·5	3·22	0·5
Handsworth ..	59,634	24·0	11·80	12·99	134	5·3	61·1	1·35	1·6
West Bromwich ..	67,186	33·8	16·27	16·41	150	7·3	70·7	1·90	1·5
Birmingham ..	537,965	31·6	19·88	21·39	197	10·1	76·3	3·42	2·7
Kings Norton ..	66,667	28·4	10·56	11·04	100	4·7	56·2	0·79	1·7
Smethwick ..	60,691	32·3	12·84	14·05	146	5·6	64·9	1·23	3·1
Aston Manor ..	80,363	29·0	15·01	16·64	184	6·9	64·3	2·97	1·2
Coventry	73,904	31·1	15·33	15·37	138	6·9	66·6	1·69	1·6
Leicester	224,186	26·6	14·51	15·48	167	6·4	69·3	1·97	1·0
Grimsby	66,958	29·3	16·22	17·37	186	7·9	62·5	3·43	1·0

Principal Vital Statistics of the 76 Greater English Towns for 1904—*continued.*

	Populations estimated to middle of 1904.	Birth-Rate.	Recorded Death-Rate.	Corrected Death Rate.	Death-Rates at Age Periods.			Death-Rate from seven principal epidemic diseases.	Percentage of uncertified Deaths.
					Deaths under one year per 1000 Births.	Deaths 1 to 60 years per 1000 living at those ages.	Deaths over 60 years per 1000 living at those ages.		
Nottingham ..	**248,811**	27·7	17·70	18·65	176	8·6	72·3	2·58	0·8
Derby	120,449	27·4	15·30	16·49	143	7·3	77·9	1·40	0·1
Stockport ..	97,008	26·5	19·65	21·23	203	10·6	72·9	3·07	0·3
Birkenhead ..	114,814	33·2	19·64	20·93	181	9·7	79·4	3·71	0·3
Wallasey	60,354	27·8	15·22	16·65	160	7·4	68·2	2·69	1·5
Liverpool	723,430	33·7	22·59	24·18	196	12·5	77·8	4·66	3·2
Bootle	61,755	31·2	19·61	21·62	183	10·8	78·6	4·17	3·6
St. Helens ..	88,545	37·6	20·89	22·64	177	11·6	80·0	4·21	4·9
Wigan	62,800	35·0	21·48	23·67	187	11·6	88·4	2·91	0·5
Warrington ..	67,331	33·4	19·90	21·44	172	11·4	77·7	4·57	4·6
Bolton	175,744	26·8	16·91	19·12	168	8·9	80·9	2·28	0.5
Bury	58,450	23·8	16·92	18·94	164	9·4	68·1	2·34	2·1
Manchester ..	557,938	31·3	21·27	23·76	187	11·7	90·6	3·09	1·9
Salford	228,983	31·8	21·18	23·40	192	11·7	84·6	4·37	0·4
Oldham	139,497	24·9	18·19	20·45	156	10·4	80·4	2·31	0·2
Rochdale	85,601	22·8	17·71	19·59	152	9·5	86·7	2·03	2·3
Burnley	100,569	26·6	19·51	21·99	229	9·8	83·9	3·93	1·7
Blackburn ..	132,134	23·4	16·93	19·14	191	8·8	76·2	2·36	2·8
Preston	115,055	28·1	19·20	21·00	185	9·4	89·2	2·93	3·3
Barrow-in-Furness	59,654	31·8	13·75	15·63	120	7·5	63·8	1·34	2·7
Huddersfield ..	94,925	23·7	17·51	18·78	136	9·7	77·0	1·91	1·6
Halifax	107,580	20·0	15·45	16·74	128	8·4	73·4	1·50	1·9
Bradford	285,089	22·1	17·64	19·50	166	9·7	77·0	2·42	0·7
Leeds	450,142	28·0	18·02	19·66	175	9·5	78·2	2·56	0·2
Sheffield	432,940	32·0	16·79	18·10	158	8·3	76·1	2·20	2·8
Rotherham ..	58,498	33·0	15·80	16·34	163	7·6	65·8	2·39	2·8
York	81,268	28·2	16·23	16·71	172	7·7	61·9	2·81	0·2
Hull	253,865	31·0	18·56	19·02	178	9·4	70·7	3·52	1·1
Middlesbrough ..	96,684	36·1	19·78	21·54	169	10·9	75·1	2·79	1·4
Stockton-on-Tees	52,192	31·8	17·56	18·41	149	9·5	72·4	2·57	1·1
West Hartlepool..	69,251	32·2	15·46	16·98	132	8·2	82·6	1·97	0·6
Sunderland ..	151,157	34·5	19·46	20·07	164	10·2	75·4	2·33	3·4
South Shields ..	107,334	34·0	17·90	18·95	145	10·3	69·3	1·76	5·0
Gateshead ..	118,067	34·4	18·51	19·51	174	9·6	73·6	2·88	4·0
Newcastle-on-Tyne	225,362	30·5	19·36	20·88	156	11·2	79·2	1·79	0·3
Tynemouth ..	53,060	34·9	19·22	19·85	154	9·7	76·0	1·93	1·9
Newport (Mon.)..	71,543	33·1	15·67	16·93	152	7·8	66·2	1·64	0·4
Cardiff	176,313	29·6	14·83	16·13	146	7·7	68·0	1·80	0·2
Rhondda	122,310	39·8	19·11	21·02	190	9·4	75·8	3·80	0·8
Merthyr Tydfil ..	72,745	38·1	19·73	20·92	186	9.7	69·5	2·53	0·3
Swansea	95,931	31·3	18·02	19·33	174	8·7	75·2	2·23	1·3

The City of Nottingham.

SITE and POPULATION DATA, and RATABLE VALUE.

1904.

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.

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.

Average number of persons to an acre, 22.

Ratable Value, £1,172,716 (for Poor Law purposes).

GENERAL VITAL STATISTICS.

Population.—The population of the City at the middle of 1904, estimated upon the assumption that the proportional rate of annual increase observed during the latest intercensal decennium has continued since the census of 1901, works out at 248,811.

Notwithstanding the undoubted depression in local industries, the number of occupied tenements in the City as gauged by the number of tenements upon which water-rate is paid continues to increase. There were 58,000 of these at the close of 1904, as compared with 56,784 at the end of 1903. This fact, together with the further fact that 1,220 new houses were certified by the City Engineer during the past year as fit for habitation would seem to imply a steady growth of population in spite of the discouraging evidence of declining local trade. The centrifugal movement of population brought about by the growth of facilities for rapid transit afforded by electric trams and improved suburban train service is sufficient to account for many of the empty dwelling houses in the central parts of the City. The natural increase of the population, represented by the excess of births over deaths during the year, was 2,566. This, of course, is an unreliable guide, unless—and this is not the case here, and seldom is the case—emigration and immigration figures are available for its correction. Still, it is interesting to note that there is a difference of only 260 between this (natural) and the estimated increment, the latter exceeding the former by this

amount. So far as one can gather then, from these and other like indications, the population would appear to be still growing at about the same rate as during the last decennium.

At the census of 1901, as I have previously pointed out, the sexual ratio of the City population was 100 males to 114·6 females, as compared with 100 to 120 at the previous census. The declining preponderance of the female element is certainly due to a diminished demand for female labour. The relative proportion of males and females in the population of England and Wales is 100 to 106·7

Nottingham now occupies the 11th place from the top among the great towns of England and Wales in order of magnitude of population, Hull being next above it with 253,865, and Salford next below with 228,983.

Marriages.—Five clear years have now elapsed since the unification of the City area for all purposes of local government. I am able, therefore, to furnish a return of all the marriages which have taken place in Nottingham during this period. It will be seen by the accompanying table that the annual totals of marriages have increased each year, largely at first, in a lesser degree later, down to and including 1903, but that the total for 1904 (2,057) is no less than 230 below that for 1903 (2,287), and is lower also than that of any other year in the period. A fall in the number of marriages so sudden and pronounced as this is an unmistakeable sign of diminished prosperity. Although the annual numbers had increased from 1901 to 1903, the increase was only a trifling one each year, and the diminished prosperity had in all probability already begun as far back as 1901.

Nottingham Parish. Annual Marriages.

1900	1901	1902	1903	1904
2,153	2,255	2,256	2,287	2,057

The next table gives the numbers of marriages in churches, in chapels, and before registrars, respectively, for the year 1904, and in each of its quarters. The decline is most marked in the church marriages.

Nottingham.

Marriages in Year 1904.

	Qr. I.	Qr. II.	Qr. III.	Qr. IV.	Total.
Churches	192	360	317	332	1201
Chapels	14	28	30	19	91
Registrars	154	199	201	211	765
	360	587	548	562	2057

The numbers of persons married in Nottingham during 1904 were equal to a rate of 16·5 per 1,000 of the population, as compared with 18·6 during 1903. The corresponding marriage rate in London was 17·0, and in England and Wales 15·2, during 1904.

Births.—The births registered in Nottingham during 1904 numbered 6,880, according to my returns, and 6,979, according to those of the Registrar-General. The difference, however, is immaterial.

The total for 1903 was 6,945, or 65 more than last year.

The 6,880 births of 1904 correspond with a rate of 27·7 per 1,000 living, and is the lowest on record. The lowest previous rate was 27·8 in 1902.

The birth-rate of the City has now reached a figure almost exactly 10 per 1,000 below that of 20 years back.

I have so often, and at such length on previous occasions, referred to the modern revolt against what we have been wont to consider the prime function of marriage, that I shall here simply call attention to its

continuance and extension, as evidenced by the facts that, in Nottingham, in the United Kingdom, and in many places abroad, already declining birth-rates continue to decline, and rates which had previously shewn no declining tendency have now begun to fall away, and remind potential parents that the more children they produce the more chance have they of producing children of exceptional capacity. It is hardly necessary to say that in this regard what is true of the family is true also of the nation. The family is here, so to speak, a reduced model of the nation. Much has been said about physical and moral deterioration of late. It should be remembered that the repression of fecundity trends to this end.

Of the 6,880 children born in this City during 1904, 3,421 were males, and 3,459 females. 209 of the males, and 230 of the females were illegitimate. The illegitimate births were equal to 6·4 per cent. of the total number of births, as compared with 5·74 and 5·80 in the two immediately preceding years. The Nottingham rate for 1904 is more than 2 per cent. above the corresponding rate for England and Wales.

The birth-rate of the 76 great towns of England and Wales during 1904 was equal to 29·1, that of London to 27·9, and that of England and Wales as a whole to 27·9. The first two are markedly lower than the corresponding rates of the preceding year, and the last is identical with the previous year's rate.

Deaths.—The deaths during 1904 among persons ordinarily resident in Nottingham numbered 4,314, according to my estimate, and 4,391, according to that of the Registrar-General.

The first number accords with a crude death-rate per 1,000 living of 17·3, the second with one of 17·7. If, however, these rates be corrected by the application

of the factor furnished by the Registrar-General in his Annual Summary of the Vital Statistics of London and other great towns, we obtain figures representing what these death-rates would become were the age and sex constitution of the local population identical with that of England and Wales. When multiplied by the correcting factor for Nottingham the rate of 17·34 rises to 18·28, and that of 17·70 to 18·65.

Of the 4,314 deaths of Nottingham persons, 2,264 were of males, and 2,050 of females. The male deaths represent a death-rate per 1,000 males living of 19·5, and the female deaths one of 15·5 per 1,000 females. This difference of 4·0 per 1,000 in favour of the females is exceptional. The male death-rate of England and Wales during 1904 was 19·2, and the female 17·3—the difference being slightly less than 2 per 1,000 in favour of the females.

The Registrar-General still includes on his list of great towns only those the populations of which exceeded 50,000 at the census of 1901, although there are several towns on the lesser list the populations of which are estimated to have risen considerably above 50,000 since the census. Nottingham now occupies the 47th place from the lowest by its recorded, and the 44th place by its corrected death-rate upon the list of the 76 towns, having gained three places by its recorded, and 2 places by its corrected rate as compared with its position in 1903.

During 1904 there were only 2 of the greater towns—Hornsey and Kings Norton—with corrected death-rates below 12·0 per 1,000, as compared with six in 1903; and at the other end of the list there were no less than 14—headed by Manchester and Liverpool—with corrected rates above 21 per 1,000, as against six only in the previous year.

The mean corrected death-rate of the 76 towns during 1904 was equal to 18·31 per 1,000, that of London to 17·48, and the rate of England and Wales as a whole (which, of course, is not corrected) to 16·23. All these rates are higher than those for 1903, and the difference is largely due to an increase in infant mortality brought about by a hot and dry summer season.

The deaths per 1,000 children born during 1904 in Nottingham amounted to 176, as against 165 in 1903. The actual number of additional deaths involved by the higher, as compared with the lower rate, is 76. The rate for 1904, though high, compares very favourably with the rates of many other recent years, notably with those of 1897, 1899, 1900, and 1901, which averaged 202 per 1,000, and ranged from 196 (1900 and 1901) to 213 (1899). Still, the improvement is without doubt due for the most part to accidental causes, of which weather conditions are the most prominent, and is so relatively slight as to afford but little solid ground of comfort. A general infant death-rate of 176 per 1,000 births is at least $\frac{2}{5}$ths higher than a normal good-neighbourhood-rate for a town of the character of Nottingham. In other words such a rate implies the deaths of about 476 children during the year, whose lives might have been saved had the conditions under which they were fed and housed been reasonably favourable, approaching, that is, the condition under which the average child of the lower middle class is reared. We must not forget that the bulk of the infant mortality both actually and relatively occurs among the poor.

The infant death-rate of the 76 great towns (per 1,000 births) was 160, of the 142 lesser towns 154, of London 146, of England and Wales 146, and of England and Wales less the 218 towns, 125, during 1904. All these rates were considerably higher than those of 1903.

The deaths of persons aged from 1 to 60 years during 1904 were in Nottingham equal to a rate of 8·6 per 1,000 living within the age period, in the 76 great towns to one of 8·9, in London to one of 8·7, and in England and Wales to one of 7·9.

The death-rate per 1,000 of population among persons aged 60 years and over, was equal in 1904 to 72·3 in Nottingham, 72·0 in the 76 towns, 69·6 in London, and 68·2 in England and Wales.

Registration Sub-Districts.—The boundaries of these have remained unaltered since the unification of the City area in the Spring of 1899; the vital statistics of each may therefore be evenly compared since this year. The extent of each Sub-District is clearly defined upon the maps shewing the distribution of enteric fever and diphtheria cases. In considering, however, the rates of the several districts based upon their individual population figures, it must be remembered that these latter are the figures of the last census only, no estimate of their subsequent increase being possible on account of the frequent alterations made in them prior to the unification of the City area. Still, the increase since the census has not in any case been great, and if the rates are compared only among themselves the comparison will for the most part be just and equal. The deaths and notifications of infectious sickness appearing in this section and the accompanying table are now, as far as practicable, referred to the districts to which they properly belong. Such correction is specially necessitated by the existence of workhouses, hospitals, and other public institutions.

The birth-rate in the Bulwell Sub-District, 35.0 per 1,000, is still high, and, with all due allowance for the low population figure upon which it is based,

by far the highest in the City. The rates in the other Sub-Districts are—25.2 in N.W., 27.5 in N.E., 26.2 in S.W., and 32.8 in S.E.

Births in Registration Sub-Districts. 1904.

District.	Legitimate.		Illegitimate.		Total of each Sex.		Total of both Sexes.
	M.	F.	M.	F.	M.	F.	
Bulwell ..	690	661	63	54	753	715	1468
N.W... ..	704	692	30	48	734	740	1474
N.E.	856	862	46	58	902	920	1822
S.W.	481	506	27	22	508	528	1036
S.E.	492	523	43	48	535	571	1106
Totals ..	3223	3244	209	230	3432	3474	6906

I have already referred in the general section on births to the decline of our birth-rate, and explained almost unnecessarily, perhaps, that this is due for the most part to the operation of artificial causes. I will here only call attention to the fact that the birth-rate is still maintained at practically the old figure in some large mining and other industrial communities like those of Middlesborough, Merthyr Tydfil, and Rhondda. These places, it should be noted, have a population of much the same class as that of Bulwell.

The crude general death rates were again, as last year, relatively and almost uniformly low in all the Sub-Districts but S.E., ranging in the first four from 17.0 in N.W. to 17.8 in S.W.; in S.E., however, the rate was no less than 23.2.

The excess of this rate above the average is to some extent to be explained by the undoubted fact, that the population has increased more rapidly in

this district than elsewhere in the City since the last census, and of this increase, as already explained, I have taken no account in calculating my rates, but it is certainly also due in considerable measure to a somewhat disproportionally large number of deaths from measles, whooping-cough, diarrhœa, and phthisis in the S.E. Division. In round numbers the population of this Division, so far as I can gather, is only one-seventh of the total population of the City; nevertheless, the deaths from the 7 principal epidemic diseases and from phthisis, in the division, were each equal to about one-fifth of all such deaths in the City during the year.

The deaths of infants per 1,000 births during the year gave the following rates in the several Sub-Districts:—150 in Bulwell, 197 in N.W., 191 in N.E., 172 in S.W., and 184 in S.E. The Bulwell rate was exceptionally low—even lower than that of 1903—a fact the more noteworthy and gratifying for the relatively large number of births from which the rate is calculated. The other rates are all excessive, especially those of N.W. and N.E.

The aggregate of deaths from the 7 principal epidemic diseases was much larger than in either of the two immediately preceding years, being 160 above the number for 1903, and 144 above that for 1902. The excess, however, was entirely due to diarrhœa, most of the other complaints being considerably below the average of recent years. Small-pox caused 10 deaths, and the fatal cases came from Bulwell, N.E., and S.E.; measles 44 deaths only, and 16 of these were in S.E.; scarlet fever 29 deaths, which were evenly distributed among persons from every district; diphtheria 69 deaths, of which 27 belonged to S.W., and the rest in almost equal numbers to the other divisions; whooping cough 91 deaths, more or less

evenly distributed in all districts; enteric fever 57 deaths, also evenly distributed to the districts; diarrhœa 346 deaths, the heaviest incidence being on N.E. and S.E., and especially the last (with a death-rate of more than 2 per 1,000).

The deaths from phthisis were equal to the following rates per 1,000 in the several divisions:— Bulwell, 1.36; N.W., 1.27; N.E., 1.26; S.W., 1.14; S.E., 2.02. The Bulwell rate was identical with the mean of all, the next three were considerably below this, and the rate for S.E. was no less than 0.66 above the mean. The mortality from phthisis is commonly higher in this Sub-District than elsewhere in the City.

The total deaths from cancer numbered 190, as compared with 192 in 1903, and an annual average of 209 for the preceding 5 years. The disease was somewhat less fatal in the Bulwell and S.E. Sub-Districts than the other divisions of the City, but there is no reason to suppose that this inequality of distribution was other than accidental.

NOTTINGHAM SUB-DISTRICTS.

Summary of Statistics for 1904.

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.		Approximate Enumeration.			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.	"Fever."	Diarrhœa.	Influenza.	Cancer.	Phthisis.	Small Pox.	Scarlet Fever	Diphtheria.	Enteric Fever.
	1881.	1891.	1901.																						
Bulwell ..	26,712	34,262	41,888	1468	35·0	736	220	110	17·6	150	2·63	1·36	3	6	9	10	12	14	56	3	29	57	55	303	86	80
N.W. ..	39,574	53,699	58,388	1474	25·2	995	290	133	17·0	197	2·28	1·27	..	7	5	10	25	11	75	6	49	74	28	184	124	52
N.E.	53,911	63,870	66,274	1822	27·5	1180	348	181	17·8	191	2·73	1·26	4	10	6	12	29	18	102	6	56	84	90	233	133	88
S.W.	26,080	32,072	39,510	1036	26·2	675	178	97	17·1	172	2·45	1·14	..	5	3	27	11	6	45	4	32	45	19	185	127	43
S.E.	40,295	29,974	33,692	1106	32·8	728	203	127	23·2	184	3·77	2·02	5	16	6	10	14	8	68	1	24	68	131	282	78	34
The whole City ..	186,572	213,877	239,752	6906	29·3	4314	1239	648	18·0	179	2·70	1·36	12	44	29	69	91	57	346	20	190	328	323	1187	548	297

N.B.—Populations as at Censuses of 1881, 1891, and 1901.
Births and Deaths from Local Registrars returns, without correction.
Notified cases from Health Department Registers.

GENERAL REPORT.

Epidemic Diseases.—I am pleased to be able to report once more an almost exact correspondence between the returns of deaths from the chief epidemic diseases prepared respectively by the Registrar General and myself. This correspondence has been brought about, as I have previously indicated, mainly by the adoption of identical rules for the classification of deaths attributed to diarrhœal diseases, for it was principally owing to the divergent interpretation of terms employed by medical men in describing diarrhœal death-causes that discrepancies occurred in past years. Still I feel bound to repeat, and to emphasize the statement, that such gain in uniformity may, and often does, entail loss in accuracy, because the observation of the rules may exclude many deaths from the list of those attributed to epidemic diarrhœa which are almost certainly due to this cause.

Death-Rates from the Principal Epidemic Diseases. (Average) for previous Ten Years, and for 1904.

	Nottingham.		London.		76 Towns.
	10 years. 1894–1903.	1904.	10 years. 1894–1903.	1904.	1904.
Small-pox	0·00	0·05	0·04	0·01	0·01
Measles	0·38	0·18	0·56	0·49	0·47
Scarlet Fever ..	0·16	0·11	0·14	0·08	0·12
Diphtheria	0·11	0·28	0·42	0·16	0·19
Whooping-Cough ..	0·34	0·36	0·43	0·33	0·40
Enteric Fever ..	0·28	0·23	0·14	0·07	0·10
Diarrhœa	1·18	1·37	0·78	1·04	1·20
Total Epidemic Rate	2·45	2·58	2·51	2·18	2·49

Nottingham, 1904. Temperature, Rainfall, and Seasonal incidence of Epidemic Diseases.

		Thirteen Four-weekly Periods Ending on													
		Jan. 30	Feb. 27	Mar. 26	April 23	May 21	June 18	July 16	Aug. 13	Sept. 10	Oct. 8	Nov. 5	Dec. 3	Dec. 31	Total.
Mean Temperature		38·8	38·4	39·2	46·8	50·1	55·9	61·2	63·1	58·1	52·6	48·9	39·1	37·2	48·4
Rainfall in Inches		1·65	3·19	1·21	1·52	0·42	1·36	0·37	2·48	3·01	1·51	0·40	1·07	1·53	19·733
Onsets of ascertained Cases of	Small-Pox	42	58	53	33	25	18	29	8	6	8	13	1	14	308
	Scarlet Fever	120	89	79	54	74	73	99	75	80	83	142	114	105	1187
	Diphtheria	35	47	42	31	42	36	33	36	24	35	45	77	65	548
	Enteric Fever	20	28	21	31	18	7	11	23	59	31	21	19	6	295
Recorded Deaths from	Measles	..	..	..	..	..	1	1	3	3	..	2	9	23	42
	Whooping Cough ..	6	13	12	8	3	6	9	9	4	5	1	4	11	91
	Diarrhœa	4	2	3	2	2	8	9	152	122	29	8	2	4	347

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.

Small-pox.—The recent, and to some extent still current outbreak of this disease, has attracted more public attention than all the other epidemic disorders on our list put together, and this too in spite of the fact that the actual injury to life and health occasioned by it is for the most part comparatively insignificant in amount. The popular interest in this disease, when prevalent, is probably due to its gruesome developments in severe cases, and its alarming potentiality for mischief in unprotected communities if inefficiently dealt with. But, notwithstanding the interest displayed by the public in the progress of the disease as it affects the community, the apathy of individual members of the latter in the face of imminent personal risk, and their neglect to avail themselves of the safe protection of vaccination are truly astonishing.

It is this unreasonable attitude of a large section of the public which renders the task of the Health Department, in endeavouring to stop the spread of an epidemic, particularly trying. The public in this, as in other matters, must be protected in spite of themselves; their co-operation and assistance, except in a few rare instances, is not to be counted upon. These circumstances point conclusively to the necessity of compulsory vaccination and re-vaccination, of all sections of the community, for dealing effectually with small-pox. I have said that the actual damage occasioned by small-pox is comparatively slight, and this is true, but such a result is attained only at the expense of large public outlay, in the provision of hospitals and the employment of an army of preventive officials—constituting a system of protection which, however well organised, is necessarily liable to occasional breakdown, with consequences extremely disastrous to the community affected. Much of the money so spent could be saved, and the rest far more economically expended in providing efficient vaccination and re-vaccination for the entire population.

Those who desire to ascertain how such a system works out in practice, should obtain Dr. Bruce Low's recent and most instructive report to the Local Government Board on vaccination and re-vaccination in Germany. Compulsory vaccination and re-vaccination in the German Empire has practically eliminated small-pox (from the Kaiser's European dominions), and all the hospital accommodation now required there is represented by a few beds in (or in the same enclosure with) the large general hospitals. These are occupied from time to time by cases among foreign immigrants and other persons who, having escaped vaccination or re-vaccination, have fallen in with small-pox infection. Isolation, as we understand it, is unknown, because the thoroughly vaccinated and re-vaccinated community has nothing to fear from the infection of small-pox.

Those who read my Report for 1903 may remember that small-pox was brought into Nottingham at the close of 1902 by a person from outside, who while suffering from the disease in the eruptive stage came in contact with a Nottingham male tramp, and that this man directly infected some sixteen workmen in the Hyson Green district, at a public house in that neighbourhood where he and they habitually met; further, that the disease continued active in the town till the end of July, but was then eliminated and remained absent till November, when it was re-introduced by a tramp and continued to spread up to and over the end of the year.

One remarkable feature of the local outbreak of 1903 was the high degree of prevalence of the disease among vagrants (an abstract of a Special Report on this subject will be found in my Annual Report for 1903). This feature has not persisted since to the same extent, partly owing to accidental variation in

class incidence, and partly to the increase of vaccination among the tramp community. There were 14 tramps among a total of 152 small-pox patients in Nottingham during 1903, and only 4 among 308 during 1904. In my Report for 1903 I shewed how the disease had obtained a firm hold in and about the Sneinton district through the criminal negligence of a shop-keeper's wife in Manvers Street, who, while suffering from a well marked attack and knowing herself to be so affected, neglected to notify us of the fact, remained at large, and was the means of infecting the whole of her father's family and a large number of other persons in the same district. I have now to add that, through infection disseminated in turn by these secondary cases, there originated upwards of two-thirds of the total cases recorded during the year. It was thought that the tragic results of this woman's negligence would be sufficient to deter others from following her example, but when it was found that her father-in-law and mother-in-law had followed the same course, with their eyes open to the inevitable consequences, it was considered necessary in the public interest to make an example of them. They were accordingly summoned before the local magistrates and fined £4 for the offence. The entire household of this couple (eight persons in all) excepting only themselves who had both suffered from small-pox in early youth, were attacked, and also two of their grand-children living elsewhere. These ten persons were all unvaccinated, and several became permanently disfigured. It may seem at first sight that this family was sufficiently punished by the natural consequences to themselves of their neglect of all precautions, without the infliction of legal penalties; but it must not be forgotten that the consequence of their neglect to others was far-reaching to an almost incalculable extent, and in many instances disastrous in the highest degree, and, further, that it behoved us to do all in our power to prevent a repetition of such conduct.

The accompanying tables give a list of all the cases which came to my notice in the City during the year, with the address, source of infection, condition as to vaccination, nature of attack and result, when obtainable, in each case. As I have already stated, more than two-thirds of the cases which occurred during the year were, so far as could be gathered, originally traceable to those in the Sneinton family above referred to, and in the early part of the year so widely and thickly disseminated was the infection from this source that fears were at times entertained of the outbreak getting altogether out of hand. The period of special stress, however, continued only during the first three months of the year. During this time 165 cases occurred, or rather more than half the total for the year. During the next quarter there were 85 cases, or rather more than a fourth of the annual total. During the last six months there were only 58 cases, constituting rather more than a sixth of all. After the first great outbreak, there were several others of minor importance, some due to infection imported from outside the City, and others for the most part caused by failure on the part of those in charge of small-pox patients to recognize the nature of the complaint from which they were suffering. One recrudescence arising from so-called missed cases in Seymour Street, Carlton Road, in October and November, was specially troublesome, but this also was ultimately rounded up and controlled without very serious consequences. Two cases only occurred during January, and three in February of the current year. The outbreak, therefore, was practically over by the end of 1904. Of the 308 persons attacked with small-pox during the year, 188, or 61 per cent., were vaccinated, and 23, or 7·4 per cent., re-vaccinated, 117, or 39 per cent., were unvaccinated, and 3 were stated to be vaccinated but bore no evidence of the operation. There were no deaths among the vaccinated. The deaths among the unvaccinated

numbered 10 (I have here excluded the deaths of two premature children born in the hospital of mothers suffering from small-pox), and were equal to 8·5 per cent. of all the unvaccinated cases. Among the 23 patients who had been re-vaccinated prior to infection, none had been vaccinated within 10 years, and all but one had very mild attacks, the rash in many cases being scarcely recognizable. In the one exceptional case there were no visible marks of re-vaccination. All the staff of the Health Department, including that of the Isolation Hospitals, had been recently vaccinated, and none contracted small-pox. Facts like these surely speak for themselves to those who are not deafened by prejudice.

I have continued the open air treatment, referred to in my last Annual Report, for all severe cases, and have no hesitation in expressing my conviction that a large number of the patients who recovered owed their recovery to this treatment. The patients are placed in bell tents with open sides, except to the windward. The beds stand upon wooden floors, and are provided with ample coverings securely lashed if necessary; and no serious inconvenience in nursing, or harmful result of any kind, has accrued from this line of treatment. The patients subjected to the open air treatment have almost without exception expressed approval of it, and the advantage to the other inmates of the hospital through the removal of sources of pollution from its internal atmosphere have been abundantly manifest.

The disinfection of infected houses with formalin (*formic aldehyde*) vapour or spray and chloride of lime solution, and of clothing, bedding, and other infected articles, where possible, with steam, in a Washington Lyon apparatus (temporarily set apart for the treatment of small-pox-infected goods), has been carried out with promptitude and efficiency.

The same practice as heretofore has been followed during the year with regard to the treatment of contacts. All persons found to have been in close contact with small-pox cases have, as far as possible, been kept under strict observation for a period of 16 days after the removal of the case, or cases, with which they have been in touch, to the hospital; and the temporary buildings within the old small-pox enclosure at Bagthorpe have been utilized for the accommodation of those of the poorer class of such contacts who were willing to be so lodged. No less than 50 cases of small-pox have developed among the contacts at Bagthorpe; and the special advantage of this arrangement is obvious, when one considers that the development of the disease among such persons at this quarantine station has involved no risk of infection to other persons in the City. In the lack of a station like this, indeed, it would often be practically impossible to exercise effective supervision and control over contacts of the poorer class. At the outset, before this provision was made, it was frequently necessary to clear these persons out of the public houses in the neighbourhood of their homes where they had sought refuge from the tedium of life in the latter. On several occasions, too, missed cases among public house habitués have been the means of infecting large numbers of the public house residents and customers. Some idea of the extent to which public houses have been affected may be formed from the number of publicans, and public house employées, who figure in the tables of cases which accompany this section.

Contacts of a superior class have mostly remained at home, and have been visited daily, and catered for, by Messrs Byrns & Ward, the special small-pox inspectors. In order to keep the expenditure under this heading within reasonable limits, it was early

decided that in all but very exceptional cases only maintenance should be provided during the period of quarantine. I am pleased to say that the majority of employers have displayed commendable generosity in paying at least a part of the wages of their workpeople during their enforced absence from work for this cause, assisting us also materially at the same time by making it a condition of such payment that their employees should comply with all reasonable rules laid down by us for their guidance while under observation.

A large number of posters, handbills, and leaflets, dealing with the subjects of small-pox, vaccination, and notification, were put up and distributed in all parts of the City at intervals during the year. The name and address of each fresh patient has been sent from my office, to the following public and private persons in the City of Nottingham, upon the evening of each day during which a fresh case, or fresh cases, have come to my notice:—

(1) The Secretary, General Hospital, Nottingham.
(2) The House Surgeon, Children's Hospital, Nottingham.
(3) Dr. R. R. Giddings, Surgeon to the Post Office.
(4) Mr. J. H. Brown, Engineer to the Gas Dept.
(5) Miss M. Bowers, Secretary, Charity Organization Society.
(6) Mr. G. Muncaster Howard, Clerk to the Nottingham Guardians.
(7) Mr. W. L. Hardstaff, Vaccination Officer.
(8) Mr. Herbert Clarke, Vaccination Officer.
(9) Mr. W. J. Abel, Clerk to the Education Committee.
(10) Mr. J. Potter Briscoe, City Librarian.
(11) Mr. F. W. Davies, Engineer to the Water Dept.
(12) Miss H. G. Bowers, Lady Health Visitor.

(13) Mr. J. Smith, Supervisor of Taxes.
(14) The Public Vaccinator, or Vaccinators, of the City in whose districts such fresh cases are resident.
(15) The owners or rent collectors of houses in which cases have occurred.

An action in the High Court at the instance of the Bestwood Coal and Iron Co. and others, to restrain the Corporation of Nottingham from using the new small-pox hospital on Bulwell Forest, came on for hearing before Mr. Justice Farwell, on Wednesday, February 10th, and lasted five days, exclusive of the day (17th) on which judgment was delivered.

The decision of the Court was in favour of the Corporation, and exceptionally emphatic. Its text was as follows :—

February 17th, 1904.

Mr. Justice Farwell.—"This is an action by the Attorney-General on the relation of several owners and occupiers of land and collieries in the Parish of Bestwood, and by the same owners and occupiers as plaintiffs, against the Mayor and Corporation of Nottingham to restrain them from using a building lately erected, and for the last six months used as a Small-pox Hospital, from so using it on the ground that it is a nuisance necessarily causing serious danger to the public health, and causing special damage to the relator plaintiffs. No actual case of injury has arisen, and the action is *quia timet*. In order to succeed in such an action the plaintiffs must show a strong case of probability that the apprehended mischief will in fact arise. See the Attorney-General *v.* The Corporation of Manchester, 1893, 2 Chancery Division, page 87. Or, to quote Lord-Justice Fitzgibbon in the Attorney-General *v.* Rathmines, which is not yet reported :—'To sustain the injunction the law requires proof by the plaintiff of a well-rounded apprehension of injury—proof of actual and real danger—the strong probability, almost amounting to moral certainty, that if the hospital be established it will be an actionable nuisance. A sentiment of danger and dislike, however natural and justified, certainty that the hospital will be disagreeable or inconvenient, proof that it will abridge a man's pleasure, or make him anxious, the inability of the Court to say that no danger will arise; none of these, accompanied by

depreciation of property, will discharge the burden of proof which rests on the plaintiff or justify a merely precautionary injunction restraining an owner's use of his own land upon the ground of apprehended nuisance to his neighbours.' Further, the defendants are entitled, in my opinion, to ask the Court to assume that the hospital will be properly managed, and that all the precautions that scientific skill and knowledge usually require will be taken, and they are entitled, in the present case, to the benefit of the observation that the hospital has been open and has received patients for the last six months, during the last half of which it has been full, and that no mischief has, at present, arisen therefrom."

"The hospital stands on a piece of ground four-and-a-half acres in extent, roughly triangular in shape, the base of the triangle being about 350 yards long, and abutting on the high road. It is enclosed on all sides except one with a close wooden fence, six feet six inches high, with barbed wire on the top, and there is an inside fence of barbed wire 20 feet distant, and the hospital building is 51 feet from the high road. On the side where there is no fence there is a stream nearly 20 feet wide, with a steep bank 15 or 20 feet high, sloping abruptly from the hospital grounds down to the river. There are 204 residents within a quarter-of-a-mile radius from the building, and 510 within the half-mile radius. There are 230 men employed on the Bestwood Iron Works, part of which is within the quarter-of-a-mile radius, and 1,280 on the colliery, which is without the quarter-of-a-mile, but within the half-mile radius; but the majority of the latter work underground, and some 45 men work at the Bleach Works outside the quarter and within the half-mile radius. The hospital is some miles from the populous parts of Nottingham, and has access to the City by means of a road which has a few houses on either side, and is not much used for general traffic. The nearest residence is Barrow's cottage with five inmates, 48 yards distant, and the next nearest are six cottages with 23 inmates, 157 yards distant."

"The plaintiffs' allegation that the hospital is a nuisance rests on the establishment, as a general affirmative, of the proposition that all small-pox hospitals necessarily constitute a serious danger to the health of persons resident, working, or passing by, within a radius of at any rate 51 feet. This is obviously a very serious question. Having regard to the impossibility of stamping out small-pox under the existing laws, and to the practical impossibility of isolating an outbreak in crowded areas, the Court ought not to come to any conclusion that would result in closing the majority of the small-pox hospitals in the Kingdom unless the expert testimony is really conclusive."

"Now, it is clear from the evidence that I have heard in this case that the medical profession are divided into two camps on this question, each containing persons of eminence and experience. The first point of difference is on the theory of aerial convection for any considerable distance, say, for more than 50 feet. This is a purely scientific question, and I gratefully adopt Lord Bowen's statement in Fleet *v.* The Metropolitan Asylums Board (2nd *Times* Reports p. 363), that:—'It would be most dangerous to form an independant opinion on a scientific question from the smatterings of science that might be picked up during the hearing of a case.' The plaintiffs do not contend that there is a consensus of expert opinion on the point, and it is enough for me to say that it is, therefore, not proven, and that I am not competent to form an opinion of my own on the question. If the plaintiffs could have established aerial convection for the requisite distance, they would have had a strong case, in that they would have shown the reason why danger did exist; but, failing this, they are driven to the empirical opinions of the experts. This is, of course, a legitimate and usual mode of proof, and the Court, in the case of a conflict of experts, may either say that the onus is on the plaintiffs, and has not been discharged, or it may examine the facts and the reasoning given by the experts as the ground of their opinion; and, so far as that reasoning can be tested by ordinary rules, independent of special scientific knowledge, I feel bound to test it, and not to state simply that the conflict is such that the plaintiffs have not discharged the burden cast on them. I will take Dr. Thresh, who is the protagonist on the plaintiffs' side, as an example of the reasoning of the plaintiffs' witnesses. His opinion is based on his experience and knowledge of a large number of cases of small-pox and of several hospitals, and is a conclusion of logic, not of medical science. His train of reasoning seeks to extend an induction founded on cases observed by, or known to him, to all other cases; but the induction fails, for the conclusion that all hospitals are sources of danger does not necessarily follow from the premiss that some hospitals are such; or, in other words, his cases are not sufficiently exhaustive, and his reasoning is a mere instance of the induction of the ancients described by Bacon, as '*Inductio per enumerationem simplicem, ubi non reperitur instantia contradictoria.*' It is a mere ascription of the character of a general truth to all hospitals, because, in all hospitals known to the witness, the fact is found to exist."

"There is the further difficulty that the cases are complicated by so many varying circumstances that the application of the methods of agreement and differences are impracticable. If the case had rested on the plaintiffs' evidence alone, I should have had great difficulty in adopting that conclusion as sufficiently proved,

but the Court is in possession of a number of other cases in which small-pox hospitals have been full during outbreaks of the disease, and no case has occurred within the quarter-of-a-mile radius which could not be accounted for by some means other than the hospital. Mr. Upjohn attempted to minimize the force of this evidence by criticising some of the witnesses and suggesting that certain instances only were trustworthy, and asking me to treat the plaintiffs' affirmative cases as outweighing these. But this is a fallacy. The plaintiffs' case depends on the inference to be drawn from an unbroken series of facts. In all cases where A has occurred, B has followed, therefore A causes B. But the conclusion depends on the universality of the premiss, and a negative instance, if unexplained, destroys the chain. The defendants' case does not, however, rest on these alone. It would serve no useful purpose for me to go through the evidence in detail, but with regard to the plaintiffs' historical instances—if I may so call them—they have already figured in former actions, and very recently in the Irish Court of Appeal in the Rathmines case, and have never been accepted as sufficient. It is important to remember that the General Compulsory Notification of Diseases Act came into force only in 1899, and that before that it must obviously have been far more difficult, if not impracticable, to obtain trustworthy and sufficient data from which to generalize; and, indeed, I may well adopt Lord-Justice Fitzgibbons' comment in the Rathmines case on this point:—'Cases such as Fulham, Sheffield, Bradford, and Nottingham, may be explained by reason of the character of a neighbourhood and their other circumstances.' The defendants' evidence is very strong. It is not for them to prove the negative; but their witnesses, especially Dr. Reid, with his large experience in Staffordshire, Dr. Hope with his three hospitals in Liverpool, and Dr. Boobbyer in Nottingham, are amply sufficient to break the chain of the plaintiffs' affirmative cases, even if I were satisfied that they had proved them."

"There is, of course, some risk of infection wherever there is small-pox, owing partly to the folly of the public, and of friends and relations of the patients, and partly to the human fallibility of doctors and attendants however careful; but, in considering the question from the point of view of a public nuisance, one must bear in mind that it is necessary for the public safety that some provision should be made for isolation, that the difficulties in the way of isolating in the case of the poor living in one or two rooms, or crowded together in a single cottage, are very great, and that it is (as Dr. McVail put it) a choice of evils. This consideration is mentioned by Lord-Justice Chitty in the case of the Attorney-General *v.* The Corporation of Manchester, 1893 (2 Chancery

Division), at pages 92 and 93, where he says: "The apprehended future danger in the present case is danger to the public health. Now, undoubtedly there are many cases of public nuisance, by interference with an unquestionable right of the public, such, for instance, as the permanent obstruction of a highway, where the Court did decline at once to permit evidence to be given of any supposed public benefit arising from the wrongful act complained of, and refused to balance the good alleged to accrue to some portions of the public against the mischief to the public in general. But in the case where the health of the Queen's subjects in general is concerned, it may possibly be a question whether, if the evidence shows that the maintenance of a small-pox hospital is, on the whole, balancing the good against the evil, more beneficial to the health of the public at large, or to that portion of the public that inhabits or frequents the neighbourhood, than the leaving of the persons suffering from the disease scattered in their own homes, some weight might not be properly allowed to this circumstance.

"If Lord Hardwicke is rightly reported in the case of Coldbath-fields Small-Pox Hospital, Baines *v.* Baker, he appears to have entertained some such question when he stated his opinion that 'the hospital was a charity likely to prove of great advantage to mankind.' And the same consideration applies, although not, perhaps, to the same extent, to the private nuisance alleged by the plaintiffs. If the fact of a public nuisance were established, it would, of course, be no answer to the private owners to say that the hospital must be placed somewhere. See per Lord Blackburn in Hill *v.* The Metropolitan Asylums Board, 6th Appeal Cases, 207. But where the question is whether the nuisance, in fact, exists or not, all the circumstances must be taken into consideration, and, after all, the owners and occupiers of the adjacent lands have a far more effective prophylactic provided for them by medical science than any injunction of any Court. I respectfully agree with the following passage in Lord-Justice Fitzgibbon's judgment in the Rathmines case: 'It seems probable that the dread of small-pox is, to a great extent, the result of tradition, that the scourge of the eighteenth century retains its terrors for those who do not realise that it has been deprived of most of its dangers.' Vaccination is not only a preventive, but it also modifies the disease. The evidence, even of Dr. Thresh, is that vaccination and re-vaccination at proper intervals confer practical immunity. In applying the maxim, "*Sic utere tuo, ut alienum non laedas*," the duty of reasonable precaution for one's own protection is not to be ignored. An isolation hospital reduces the risk for every inhabitant of the district; it is, in fact a necessity, and, though the individual must be protected, the public advantage should not be forbidden, unless the danger and the injury to the individual are clearly proved."

"In the present case I find, as the result of the evidence, (1) that the site of the defendants' hospital was carefully chosen, (2) is in a proper situation, and (3) constitutes no appreciable danger to the public health, and no nuisance to the relator plaintiffs' property.

"As I understand that this case is likely to go to the House of Lords, I desire to add an observation as to the evidence, in the hope of obtaining some direction from a superior tribunal. Both parties concurred in asking me to accept evidence-in-chief of what had happened with other hospitals, and I acceded to the request in deference to the opinions expressed in Hill *v* The Metropolitan Asylums Board, 42 Law Times, 212, and 47 Law Times, 29, and also because the same evidence of the same cases, with the same result, appears to have been admitted in the other reported cases relating to small-pox hospitals. The result is that the case has taken a week to try, and I venture to suggest that the admission of such evidence-in-chief is wrong in principle, as raising a number of side issues on which it is impossible for the Court to adjudicate without injury to absent parties. For instance, how can I rely on the case of the hospital ships as a proved fact in the present case without injustice to them? In Hills case (reported in the Court of Appeal in 42 Law Times, 212), Baron Pollock rejected the evidence as to the facts of the Stockwell and Homerton Hospitals, and Lord-Justice Bramwell said he was wrong in so doing, and Lord-Justice Cotton agreed with him. It is not easy to see how the point arose, as the plaintiffs, who succeeded, had tendered the rejected evidence. If the assumption in Lord-Justice Cotton's judgment were correct in fact, the evidence would be valuable. He says:—"They might have shown what in fact was the effect in the neighbourhood of the only other hospitals under the same conditions.

"But now there are a number of such hospitals, and their conditions are infinitely various, and the extent and value of such differences are exceedingly difficult to estimate. In the House of Lords, Lord Selbourne appears to agree with Lord-Justice Cotton. Lord O'Hagan dissents for reasons with which I respectfully agree. At page 31 of the 47 Law Times, Lord O'Hagan says: 'I am not prepared to say that the learned judge was wrong in rejecting the evidence, especially because of the non-fulfilment of the conditions on which he offered to receive it. Without proof as to the state and management of the other hospitals, so as to establish a substantive similarity, any inferences drawn from a comparison of their operation with that of the Hampstead Asylum might have been quite fallacious and deceptive. But, even without regard to this, I am not quite satisfied that the evidence was admissible, whether such conditions were, or were not, fulfilled. It was not pertinent to the issue tried

as to Hampstead only. No notice had been given, in the pleadings or otherwise, that it would be offered. It would have involved the jury in a multitude of collateral enquiries, calculated to confuse and embarrass them, and it might have been endlessly prolonged by an indefinite multiplication of objects of comparison. To keep such investigations within reasonable limits, and secure promptitude, precision, and satisfaction in the administration of justice, it seems to me that Courts should be very jealous of the admission of such proof. If it had been admitted here, an inquiry as prolonged, as difficult, and probably as abortive, as that which was applied for so many days to the Hampstead Asylum, might have been equally applied to each of the others, and to as many more, though numbering hundreds, as might have been alleged to have like characteristics and to offer, in their action on their neighbourhoods, the same statistical results, I do not see how judicial inquiries at Nisi prius (and, I may add also, in the Chancery Division) can be restrained within a practicable and manageable compass in many cases, if the admissibility of such evidence be declared." Lord Blackburn thought it unnecessary to decide the point. Lord Watson's opinion is stated at p. 35, and certainly rules out all the history that I have heard in the present case. His Lordship says: "In order to entitle him to give such evidence, he must, in the first instance, satisfy the Court that the collateral fact which he proposes to prove will, when established, be capable of affording a reasonable presumption or inference as to the matter in dispute; and I am disposed to hold that he is also bound to satisfy the Court that the evidence which he is prepared to adduce will be reasonably conclusive, and will not raise a difficult and doubtful controversy of precisely the same kind as that which the jury have to determine. It appears to me that it might lead to unfortunate results if the Court had not the power to reject evidence of collateral fact which does not satisfy both of the conditions which I have endeavoured to indicate.' As Lord Bowen has pointed out in Fleet's case, it is no part of the function of the Court to qualify itself as an expert in science. The Court acts on the opinion of experts whose qualifications can be tested by cross-examination, and weighs the evidence so given and tested."

"The result is, the action fails and is dismissed with costs."

In view of the fears expressed by the plaintiffs that this hospital would become a source of infection to the neighbourhood in which it stands, it is specially interesting to note that the only cases which occurred anywhere in its vicinity during the year were clearly

traced to infection from pre-existent cases among relatives in Bulwell. I am informed that a case has occurred among the men employed at the Bestwood Iron Works during the current year (at a time when our hospital was empty), and that the infection in this instance was derived from the patient's family resident in Hucknall Torkard—some members of the latter being already in hospital there at the time of the attack.

I desire, once more, to tender my thanks to Dr. Rees Jones (late Resident Medical Officer at the Nottingham City Isolation Hospital, and now Deputy M.O.H. for Lincoln City), to many medical men of Nottingham, to the staff of the Health Department, and especially to Inspectors Byrns, Ward, Williams, and G. A. Read, to Miss Wallace, Nurse Hawley, Mr. Thompson, and other members of the staff of the City Hospitals, for their cordial co-operation with me in various capacities in dealing with this, by far the most serious outbreak of small-pox from which Nottingham has suffered during my term of office.

Small-pox was considerably less prevalent and less fatal in England and Wales as a whole during 1904 than during 1903. The total number of deaths ascribed to it in this country during 1904 was 504, as compared with 754 during 1903. In greater London there were 29 deaths, in the 76 greater towns taken together 208, and in the 142 lesser towns 127. Deaths from small-pox were registered in 36 of the greater towns, and in 23 of the lesser.

The following towns in addition to London suffered to the extent of 10 deaths or more :—

Dewsbury (57)	Oldham (14)
Gateshead (34)	Stockport (14)
Newcastle-on-Tyne (18)	Manchester (10)
Felling (15)	Nottingham (10)

There were 68 deaths from small-pox in Glasgow during 1904.

NOTTINGHAM, 1904.

HISTORY OF SMALL-POX CASES DISCOVERED IN THE CITY DURING THE YEAR.

No. of Case.	Initials of Name.	Sex.	Age.	Address whence removed.	Source of Infection.	Condition as regards Vaccination. V.—Vaccinated. i.—Primary Vaccination, with number indicating age in years, or inf.(=under 1 year of age) at time. ii., iii., etc.,—Re-vaccination, with numbers ditto. G.—good vaccn. B.—bad vaccn. F.—fair vaccn. M.—vaccn. marks, with number following.	Character of Attack. H.—Hæmorrhagic. C.—Confluent. D.—Discrete. V.M.—Very Mild. Mod.—Modified.	Date of Rash.	Date of Admission.	Result.	Date of Death or Discharge, and Number of Days in Hospital.
1	E. S.	F.	21	11, Knob Yard, Narrow Marsh	E. H., "Tiger's Hd.," Narrow Marsh, case 149, '03 Rep.	Unvaccinated	C.-semi, aborting measly prodromal rash	30-12-1903	1-1 1904	Recovery	9-2-'04—39 days.
2	E. S.	M.	26	77, Brighton Street	H.W., at H's., 23, Duncombe St., case 148, 1903 Report	V. i. inf., G., M 4	C.-semi, mod. aborting	31-12 1903	1-1-1904	Ditto	5-2-'04—35 „
3	A. S.	M.	25	43, Corporation Road	Ditto	V. i. 7, F., M 3	V.M., mod.	30-12 1903	2-1-1904	Ditto	13 1-'04—11 „
4	M. M.	F.	21	35, Moffatt Street	Ditto	Unvaccinated	C.-semi, severe	2-1-1904	3-1 1904	Ditto	20-2-'04—48 „
5	C. C. C.	M.	2½	7, Corporation Road	Ditto	Ditto	C., throughout head, face, arms	2-1-1904	4-1-1904	Death	12-1-'04—8 „
6	J. K.	M.	39	25, Abbott Street	Ditto	V. i. inf., G., M 3	D., mild	2-1-1904	4-1-1904	Recovery	23 1-'04—19 „
7	W. M.	M.	65	33, Hungerhill Road	Ditto	V. i. inf., F., M 2	C.-semi, severe	3-1-1904	6 1-1904	Ditto	5-2-'04—30 „
8	J. S.	M.	8	57, Pierrepont Street	F. W. N., No. 9	Unvaccinated	C., very severe	2-1 1904	6-1-1904	Ditto	24-2-'04—49 „
9	F. W. N.	M.	23	"Boar's Head," Pierrepont Street, & 1, Stapley Yard, Windmill Lane	E. G., 34, Manvers Street, case 134, 1903 Report	V. i. inf., G., M 2	D., mod., very mild	22 to 24 12-'03	7 1 1904	Ditto	10-1-'04—3 „
10	A. N.	F.	41	1, Stapley Yard, Windmill Lane	F. W. N., No. 9	V. i. inf., G, M 4	C.-semi, mod.	5-1 1904	7-1-1904	Ditto	9-2-'04—33 „
11	E. A. B.	F.	3½	Ditto	Ditto	Unvaccinated	C. semi, severe, aborting	5 1 1904	7-1 1904	Ditto	27-1-'04—20 „
12	I. H.	F.	50	"Tiger's Head," Narrow Marsh	L. A., 33, Flewitt St., and 3 & 5, Southwell Road, case 150, 1903 Report	V. i. inf., G., M 2	D., severe, aborting	5-1 1904 cir	7-1-1904	Ditto	23-1-'04—16 „
13	N. C.	M.	35	5, Elliott's Yard, Ilkeston Road	Contact with ditto & F.W.N., No. 9	V. i. inf., G., M 3	D., mild, aborting	7-1-1904	11-1-1904	Ditto	30-1-'04—19 „
14	J. W.	M.	42	Moss's Lodging House, 79, Narrow Marsh	A. S., No. 3	V. i. inf., F., M 3	C.-semi, severe	13-1-1904	15-1-1904	Ditto	26-2-'04—42 „
15	M. V.	F.	13	3, Water Place, Water Lane	F.W.N., No. 9, & J. S., No. 8	Unvaccinated	C., severe	13-1-1904	15-1-1904	Ditto	5-3-'04—50 „
16	M. B.	F.	15	64A, Carlton Road (Old Clothes Shop)	Fomites—old clothes, from E. G.'s	Ditto	C.-semi, severe		15-1 1904	Ditto	26-2-'04—42 „
17	H. H.	M.	35	80, Poplar Street	Fomites — probably food stuffs, from E. G.'s	V. i. inf., F., M 4	D., severe	12-1-1904	15-1 1904	Ditto	18-2-'04—34 „
18	E. G.	F.	5	30, White Street	Ditto ditto	Unvaccinated	D., mild	24 to 27-12-'03	18-1-1904	Ditto	22-1-'04—4 „
19	C. G. (Charlotte)	F.	12	Ditto	E. G., No. 18	Ditto	D., mild	9-1 1904	18-1-1904	Ditto	30-1-'04—11 „
20	Jas. G.	M.	21	Ditto	Ditto	Ditto	D., mild	9 1-1904	18-1-1904	Ditto	27-1-'04—8 „
21	Chas. G.	M.	19	Ditto	Ditto	Ditto	D., severe	9 1 1904	18-1-1904	Ditto	24-2-'04—37 „
22	Jos. G.	M.	17	Ditto	Ditto	Ditto	C., H. in parts, very severe	9-1 1904	18-1-1904	Ditto	12-3-'04—54 „
23	P. G.	F.	15	Ditto	Ditto	Ditto	C.-semi, severe	10-1-1904	18 1-1904	Ditto	5-3-'04—47 „
24	A. G.	M.	14	Ditto	Ditto	Ditto	C.-semi, severe	11-1-1904	18-1-1904	Ditto	26-2-'04—39 „
25	M. G.	F.	9	Ditto	Ditto	Ditto	D., severe	12-1-1904	18-1-1904	Ditto	24-2-'04—37 „
26	A. B. (alias W.)	F.	25	74, Poplar Street	J. S., No. 8	V. i. inf., F.	V.M.	12-1-1904	18-1-1904	Ditto	24-2-'04—6 „
27	K. G.	F.	24	62, Pierrepont Street	Ditto	V. i. inf., F., M 4	D., mild, mod.	18-1-1904	19-1-1904	Ditto	cir. 5-2-'04—17 „
28	W. A. S.	M.	19	Ditto	Ditto	V. i. inf., B.	D., mild, mod., well marked measly prodromal	20-1-1904	19-1-1904	Ditto	9-2-'04—21 „
29	V. T.	F.	19	37, Foundry Yard, Leen Side	Ditto	V. i. inf., F., M 4	D., mild, measly prodromal	17-1-1904	19-1-1904	Ditto	9 2-'04—21 „
30	C. N.	F.	60	4, Mitchell Street	E. G., No. 18	V. i. inf., G., M 4	D., severe	20-1-1904	20-1 1904	Ditto	19-2-'04—30 „
31	E. J.	F.	22	34, Martin's Yard, Narrow Marsh	I. H., No. 12	V. i. inf., G., M 4	D., mild	18-1-1904	20-1-1904	Ditto	2-2-'04—13 „
32	J. W.	M.	4	29, Pomfret Street, and 30, White Street	G's., Nos. 19 to 25	Unvaccinated	C.-semi, severe	21-1-1904	21-1-1904	Ditto	24-2-'04—34 „
33	L. E.	F.	17	24, Finkhill Street	Ditto	Ditto	D., mild	21-1-1904	22-1-1904	Ditto	2-2-'04—11 „
34	W. B.	M.	20	Clement's Lodg. House, 71A, Narrow Marsh, but found by M.O.H., in Public Street, Leen Side	I. H., No. 12	V. i. inf., B.	D., severe	17 or 18-1-'04	22-1-1904	Ditto	9-2-'04—18 „
35	J. H. R.	M.	12	21, Temple Place, Narrow Marsh	J. W., No. 14	Unvaccinated	C.-semi, severe, admtd. with measly prodromals on 25th	27-1-1904	25-1-1904	Ditto	5-3-'04—40 „
36	M. A. E. R.	F.	8½	Ditto	Ditto	Ditto	D., severe, ditto	27-1-1904	25-1-1904	Ditto	24-2-'04—30 „
37	C. B.	F.	40	30, Knotted Alley, Narrow Marsh	I. H., No. 12	Ditto	C., vesic. & H., semi-malgnt.	22-1-1904	26-1-1904	Death	6-2-'04—11 „
38	G. W.	M.	56	Key's Lodging House, 111 and 113, Narrow Marsh	J. W., No. 14	V. i. inf., M 3	D., mild. Admitted on erythematous prodromal rash and other warnings.	28-1-1904	27-1-1904	Recovery	16-3-'04—18 „
39	W. W.	M.	11	29, Pomfret Street	G's., Nos. 19 to 25	Unvaccinated	C.-semi, severe	26-1-1904	27-1-1904	Recovery	24-2-'04—28 „

No. of Case.	Initials of Name.	Sex.	Age.	Address whence removed.	Source of Infection.	Condition as regards Vaccination. V.—Vaccinated. i.—Primary Vaccination, with number indicating age in years, or inf.(=under 1 year of age) at time. ii., iii., etc.,—Re-vaccination, with numbers ditto. G.—good vaccn. B.—bad vaccn. F.—fair vaccn. M.—vaccn. marks, with number following.	Character of Attack. H.—Hæmorrhagic. C.—Confluent. D.—Discrete. V.M.—Very Mild. Mod.—Modified.	Date of Rash.	Date of Admission.	Result.	Date of Death or Discharge, and Number of Days in Hospital.
40	E. E.	F.	38	35, Leen Side	G's., Nos. 19 to 25	V. i. inf., G., M 3	V.M., 2 distinctive pocks only	27-1-1904	Isolated at home 3 wks.	Recovery	
41	W. T.	M.	47	79, Narrow M., Com. Lodg. House, Reg. No. 33	J. W., No. 14	V. i. inf., G , M 4	D., severe	27-1-1904	28-1-1904	Ditto	16-3 '04—48 days
42	E. E.	F.	35	77 ditto	Ditto	V. i. inf., G., M 4	D., severe, aborting early	31-1-1904	30-1-1904	Ditto	18-2-'04—12 "
43	E. H.	F.	34	3, Fleet Place, Narrow Marsh	Ditto	V. i. inf., F., M 3	Admitted on measly prodromal, with D., mild	28 1-1904 cir	31-1-1904	Ditto	back pain and vomiting. 18 2.'04—18 "
44	E. G.	F.	51	This Woman, being sought by M.O.H. and Inspr., ran away from home, and was in hiding at various places, from 105, Narrow Marsh, Common Lodging House, Registered No., 21A	V. T., No. 29	V. i. inf., F., M 3; ii. F., M 2	5.30 p.m., 31-1 to 11 a.m., 1-2-'04. V.M., aborting	1-2-1904	3 2-1904	Ditto	20 2 '04—17 "
45	L. G. E.	M.	22	24, Finkhill Street	L. E., No. 33	V. i. inf , F., M 3; ii. G., M 4. 2 days after exposure	V.M., aborting	3-2-1904	3 2-1904	Ditto	9-2.'04—6 "
46	E. E.	F.	15	Ditto	Ditto	V. i. inf., F., M. 2; ii. G., M 4 ditto	V.M., aborting	3-2-1904	3-2-1904	Ditto	9-2.'04—6 "
47	J. McC.	M.	25	15, Glebe Street	G's., Nos. 19 to 25, probably had been thro' their neighbourhood continually	V. i. inf., G., M 2	D., very sparse, aborting	2-2-1904	4-2-1904	Ditto	18 2 '04—14 "
48	A. K.	M.	7	7, Orchard Street, Greyfriar Gate	L. E., No. 33	Unvaccinated	D , mild, mod. aborting	4-2 1904	5-2-1904	Ditto	20-2.'04—15 "
49	J. C.	M.	27	3, Arrow Terrace, Fisher Gate	E. J., No. 31	V. i. inf., G., M 2	D., mild, aborting	4-2-1904	5-2-1904	Ditto	24 2.'04—19 "
50	L. A.	F.	21	1, Elliott's Yard, Ilkeston Road	Infected by missed case from N.C., No. 13	Unvaccinated	D., severe	3-2 1904 cir	5-2-1904	Ditto	16 3.'04—39 "
51	F. C.	M.	31	3, Watt Street, Colwick Street	G's . No. 19 to 25	V. i. inf., G., M 4	D., mod. aborting	2-2-1904	6-2-1904	Ditto	19 2.'04—13 "
52	J. K.	M.	57	78, Newmarket Road, Bulwell	Contact with tramp at shop	V. i. inf., G., M 3	D., mod.	5-2-1904	6-2-1904	Ditto	19 2.'04—13 "
53	J. W.	M.	34	29, Pomfret Street	J. W., No. 32	V. i. inf., G., M. 4; ii. G., M 4. 2 days after exposure	D., very mild, aborting	5-2 1904	6-2-1904	Ditto	16 2.'04—10 "
54	C. R.	F.	51	14, Baker Street	W.B., No. 34.—W.B. took in coal to Miss C.R's. house with S.P. rash full out on him	V. i. inf., G., M 4	C.-semi, severe, but abrtng. late	4-2-1904	8-2-1904	Ditto	12 3.'04—33 "
55	E. H.	F.	19	Ditto	Ditto	V. i. inf., G., M 4	D., very mild	4-2-1904	8-2-1904	Ditto	20-2.'04—12 "
56	A. B.	M.	14	27, Minerva Street, Bulwell	Contact with tramp who infected J. K., No. 52	Unvaccinated	D., severe	5-2-1904	6-2-1904	Ditto	16-3.'04—37 "
57	C. S.	M.	40	49, Ronald Street, Radford	Missed case following N.C., No. 13	V. i. inf., B., M 1	C.-semi, severe, but mod. attack	6-2-1904	8-2-1904	Ditto	11 3 '04—32 "
58	A. S.	M.	27	7, Ford Street, St. Ann's Well Road	Outside City (Ilkeston)	Stated to be vaccinated. No visible marks.	D., severe, unmod.	7-2-1904	8-2-1904	Ditto	12 3.'04—32 "
59	M. W.	F.	25	18, Tealby Terrace, Glebe Street	Ditto ditto	Ditto ditto	Mild, mod.	7-2-1904	9-2-1904	Ditto	5-3.'04—25 "
60	E. B.	M.	33	1, Paradise Place, Queen's Road	Ditto (Derby)	V. i. inf., G., M 1	Mild, mod.	7-2-1904	10-2-1904	Ditto	19-2.'04—9 "
61	H. H.	M.	22	1, Buxton Terrace, Buxton Street	Ditto ditto	Stated to be vaccind. in inf. No visible marks	D., severe	8-2-1904	10-2-1904	Ditto	16-3.'04—35 "
62	T. H. H.	M.	51	Ditto	Ditto ditto	V. i. inf., G., M 4	D., mild, aborting	8 2-1904	10-2 1904	Ditto	19-2.'04—9 "
63	G. W. R.	M.	24	69, Hazel Street, Bulwell	Probably Narrow Marsh	Unvaccinated	C.-semi, severe, abrtng. late	8 2-1904	10-2-1904	Ditto	23-3.'04—42 "
64	J. B.	M.	46	Tramp from Loughboro'	Outside City (Leicester)	V. i. inf., no definite mark; ii., 1882	D., mild	8-2-1904	12-2-1904	Ditto	5-3.'04—22 "
65	A. B.	F.	19	11, Beverley Street	Missed case, L.D., Clarence St	Unvaccinated	D., but severe	10-2-1904	12-2-1904	Ditto	9-3.'04—26 "
66	L. C. (Cretin)	F.	22	1, Old Street Place, Old Street	Untraced	No. evidence of vaccination	D., but severe, aborting	12-2-1904	13-2-1904	Ditto	2-3.'04—18 "
67	N. T.	F.	19	64, Henry Street	Missed case, F.D., Clarence St	V. i. inf., M 1	D., mild	11-2-1904	13-2-1904	Ditto	24-2.'04—11 "
68	B. N.	F.	29	33, Martin's Yard, Narrow Marsh	Ditto L.D., ditto	V. i. inf., F., M 3	D., severe	13-2-1904	15-2-1904	Ditto	9-3.'04—23 "
69	J. W.	M.	26	11, Wilson Place, Woolpack Lane	Narrow Marsh, where patient acted as lamplighter	V. i. inf., G., M 2	D., mild	13-2-1904	15-2-1904	Ditto	26-2.'04—11 "
70	A. W.	F.	28	20, Hooton Street	H.H., missed case, Raleigh Cycle Works	V. i. inf., G., M 3	D., mild, aborting	13-2-1904	15 2-1904	Ditto	2-3.'04—17 "
71	L. D.	F.	22	4, Tyler Street	E. H., No. 43	Unvaccinated	C.-semi, severe	15-2-1904	16-2-1904	Ditto	19 3.'04—32 "
72	C. D.	F.	3	Ditto	Ditto	Ditto	C.-semi, severe	15-2-1904	16-2-1904	Ditto	26-4.'04—70 "
73	W. D.	M.	5/12	Ditto	Ditto	Ditto	D., severe	14-2-1904	16-2-1904	Ditto	19-3.'04—32 "
74	W. D.	M.	51	Ditto	Ditto	Ditto	D., mild	14-2-1904	16-2-1904	Ditto	24-2.'04—8 "
75	S. E. W.	F.	14	Ditto	Ditto	V. i. inf., F., M 2	D., very mild	14-2-1904	16-2-1904	Ditto	5-3.'04—18 "
76	M. A. D.	F.	47	14, Ditto	Ditto	V. i. inf., G., M 2. Unsuccessfully re-vaccinated shortly after exposure	D., mild	14-2-1904	16-2-1904	Ditto	16-3.'04—29 "
77	H. J.	M.	33	105, Narrow Marsh	Ditto	V. i. inf., G., M 2	D., mild	14-2-1904	16-2-1904	Ditto	12-3.'04—25 "
78	F. F.	M.	54	At Webster's, 5, Portland Place, Coalpit Lane	Ditto	V. i. inf., G., M 4	D., severe	15-2-1904	16-2-1904	Ditto	19-3.'04—32 "

No. of Case.	Initials of Name.	Sex.	Age.	Address whence removed.	Source of Infection.	Condition as regards Vaccination. V.—Vaccinated. i.—Primary Vaccination, with number indicating age in years, or inf.(=under 1 year of age) at time. ii., iii., etc.,—Re-vaccination, with numbers ditto. G.—good vaccn. B.—bad vaccn. F.—fair vaccn. M.—vaccn. marks, with number following.	Character of Attack. H.—Hæmorrhagic. C.—Confluent. D.—Discrete. V.M.—Very Mild. Mod.—Modified.	Date of Rash.	Date of Admission.	Result.	Date of Death or Discharge, and Number of Days in Hospital.
79	I. A.	F.	32	29, Brougham Street	E. H., No. 43	V. i. inf., F., M 3	D., mild	15-2-1904	16-2-1904	Recovery	11-3-'04—24 days
80	M. H.	F.	19	13, Bedford Row, Colwick Street	Ditto	V. i. inf., G., M 3	D., mild	15-2-1904	17-2-1904	Ditto	2-3-'04—14 „
81	E. B.	F.	29	2, Tyler Street	Ditto	V. i. inf., G., M 1	C., severe	15-2-1904	17-2-1904	Ditto	12-4-'04—55 „
82	J. S.	M.	24	2, Crocus Terrace, Goodhead Street	Ditto	Unvaccinated	C.-semi, severe	15-2-1904	17-2-1904	Ditto	26-3-'04—38 „
83	W. S.	M.	32	50, Victoria Place, Ponnyfoot Street	Ditto	V. i. inf., G., M 3	D., mild	14-2-1904	17-2-1904	Ditto	24-2-'04—7 „
84	C. B.	F.	30	7, Albion Place, Newington Street	Ditto	V. i. inf., G., M 3	D., mild	14-2-1904	17-2-1904	Ditto	2-3-'04—14 „
85	C. L.	F.	47	6, Garnet Street, Gordon Road	Ditto	V. i. inf., G., M 2	D., severe, but aborting	14-2-1904	17-2-1904	Ditto	2-3-'04—14 „
86	A. E., at W.'s	M.	25	3, King's Lynn Terrace, Turner Street	Ditto	Unvaccinated	C.-semi, severe	15-2-1904	18-2-1904	Ditto	2-4-'04—44 „
87	J. C.	M.	15	12, Earl Street, Sneinton	J. C., No. 49	Ditto	C.-semi, severe	19-2-1904	20-2-1904	Ditto	23-3-'04—33 „
88	F. A. R.	F.	35	19, China Street, Quarry Road, Bulwell	A. O., No. 91, post	V. i. inf., G., M 4	D., unmod.	18-2-1904	20-2-1904	Ditto	12-3-'04—21 „
89	H. F. (tramp)	M.	36	Pinder's Lodging House, 81, Narrow Marsh	Outside City (Derby)	V. i. inf., F., M 4	D., mild	18-2-1904	21-2-1904	Ditto	26-3-'04—34 „
90	M. A. J.	F.	34	2, Hield's Yard, Thoresby Street	E. H., No. 43	V. i. inf., G., M 4	D., very mild	15-2-1904	21-2-1904	Ditto	2-3-'04—10 „
91	A. O.	M.	19	212, Quarry Road, Bulwell	Narrow Marsh	V. i. inf., G., M 4	D., very mild	5-2-1904	21-2-1904	Ditto	2-3-'04—10 „
92	L. S.	M.	12	Ditto	A. O., No. 91	Unvaccinated till 12-2-04	D., very severe	20-2-1904	21-2-1904	Ditto	13-5-'04—82 „
93	T. O.	M.	11	Ditto	Ditto	V. i. inf., B.	D., mild	20-2-1904	21-2-1904	Ditto	2-3-'04—10 „
94	M. P.	F.	55	1, Paradise Place, Queen's Road	E. B., No. 60	V. i. inf., G., M 3; ii., 13-2-04, 7 days before rash	C.-semi, severe	20-2-1904	22-2-1904	Ditto	13-4-'04—51 „
95	G. B.	F.	1	2, Knob Yard, Narrow Marsh	F. C., No. 51	Unvaccinated	D., severe	21-2-1904	22-2-1904	Ditto	23-4-'04—61 „
96	F. P.	F.	29	23, Bertram Street	A. P., husband, missed case	V. i. inf., G., M 4	D., mild	19-2-1904	22-2-1904	Ditto	29-3-'04—36 „
97	W. R.	M.	52	24, North Street, Carlton Road	F. C., No. 51	Unvaccinated	C. H.	20-2-1904	22-2-1904	Death	29-2-'04—7 „
98	A. T.	M.	25	2, Norton's Place, Narrow Marsh	C. S., No. 57	V. i. inf., G., M 3	D., mild	21-2-1904	24-2-1904	Recovery	23-3-'04—28 „
99	M. A. T.	F.	1/12	Ditto	Ditto	Unvaccinated	C., very severe	21-2-1904	24-2-1904	Death	9-3-'04—14 „
100	M. A. Q.	F.	7	11, Hart's Yard, Goose Gate	Pomfret Street	Ditto	C.-semi, severe	26-2-1904	27-2-1904	Recovery	19-4-'04—52 „
101	K. P.	F.	20	22, Kentwood Road	Workplace, Station Street	V. i. inf., F., M 3	D., severe	26-2-1904	27-2-1904	Ditto	16-3-'04—18 „
102	A. B.	M.	26	1, Pierrepont Street	H. B., missed case, 109, post	Unvaccinated	C., very severe	26-2-1904	28-2-1904	Death	8-3-'04—9 „
103	A. W.	M.	25	20, Cardwell Street, H. G.	Workplace, Station Street	V. i. inf., F., M 3	D., mild	26-2-1904	28-2-1904	Recovery	12-3-'04—13 „
104	A. A.	F.	9	22, Lees Hill Street	Father, missed case, from E. H., No. 43	Unvaccinated	C.-semi, severe	28-2-1904	29-2-1904	Ditto	26-3-'04—26 „
105	L. H.	F.	14	8, Pennyfoot Street	L. C., No. 66	V. i. inf., F., M 4	Very mild, aborting	28-2-1904	29-2-1904	Ditto	5-3-'04—5 „
106	J. B.	M.	5/12	23, Pomfret Street	W. S., No. 83	Unvaccinated	D., severe	29-2-1904	29-2-1904	Ditto	29-4-'04—60 „
107	T. P., at H.'s	M.	25	11, Dame Agnes Street	Ditto	V. i. inf., F., M 3	Mild, aborting	27-2-1904	29-2-1904	Ditto	19-3-'04—19 „
108	W. L. (tramp)	M.	35	Casual Ward, Bagthorpe Workhouse, having tramped from Loughboro'	Outside City (Leicester)	Unvaccinated	C.-semi, severe	28-2-1904	2-3-1904	Ditto	6-4-'04—35 „
109	H. B.	F.	6	21, Jubilee Street, Sneinton Dale	Probably E. H., No. 43	Ditto	D., mild	15-2-1904	2-3-1904	Ditto	5-3-'04—3 „
110	W. B. (tramp)	M.	60	Casual Ward, Bagthorpe Workhouse, from Pinder's Lodging House, and Leicester	Outside City (Leicester?)	V. i. inf., F., M 3	D., mild	29-2-1904	5-3-1904	Ditto	16-3-'04—11 „
111	A. W.	F.	7	21, Bertram Street	F. P., No. 96	Unvaccinated until 11 days before rash, G., M 4	Mild, aborting	5-3-1904	5-3-1904	Ditto	12-3-'04—7 „
112	U. H.	F.	42	103, Narrow Marsh	M. A. J., No. 90	V. i. inf., G., M 3	D., mild. very dark, full measly, prodromal rash	5-3-1904	6-3-1904	Ditto	19-3-'04—12 „
113	G. W.	M.	23	6, Roden Street	Outside City (between Beeston and Derby)	V. i. inf., G., M 3	D., mild	7-3-1904	7-3-1904	Ditto	23-3-'04—16 „
114	M. M.	F.	40	7, Uppingham Terrace, Waterway Street	F. P., No. 96	V. i. inf., F.	C.-semi, severe, in patches (with large areas of clear skin), but aborting	6-3-1904	7-3-1904	Ditto	29-3-'04—22 „
115	H. H.	F.	21	10, Union Terrace, Mansfield Road	M. P., No. 121, post	V. i. inf., G., M 3	D., mild	4-3-1904	7-3-1904	Ditto	23-3-'04—16 „
116	M. C.	F.	40	8, Fleet Place, Narrow Marsh	M. A. J., No. 90	V. i. inf., G., M 3; ii. 20, poor	D., mild	6-3-1904	7-3-1904	Ditto	29-3-'04—22 „
117	S. B.	M.	45	82, Narrow Marsh	Ditto	V. i. inf., F., M 3	D., severe	6-3-1904	8-3-1904	Ditto	6-4-'04—29 „
118	K. S.	F.	40	3, Garibaldi Terrace, Alfred Street, N.	M. P., No. 121, post	V. i. inf., G., M 4	D., severe, but aborting	7-3-1904	8-3-1904	Ditto	29-3-'04—21 „
119	G. H. A.	M.	18	16, Livingstone Terrace, Bunbury Street	F. P., No. 96	V. i. inf., F., M 3	D., severe	6-3-1904	8-3-1904	Ditto	16-4-'04—39 „
120	W. S.	M.	45	1, Garibaldi Terrace, Alfred Street, N.	M. P., No. 121, post	V. i. inf., F., M 3	D., mild	8-3-1904	8-3-1904	Ditto	25-3-'04—17 „

No. of Case.	Initials of Name.	Sex.	Age.	Address whence removed.	Source of Infection.	Condition as regards Vaccination. V.—Vaccinated. i.—Primary Vaccination, with number indicating age in years, or inf.(=under 1 year of age) at time. ii., iii., etc.,—Re-vaccination, with numbers ditto. G.—good vaccn. B.—bad vaccn. F.—fair vaccn. M.—vaccn. marks, with number following.	Character of Attack. H.—Hæmorrhagic. C.—Confluent. D.—Discrete. V.M.—Very Mild. Mod.—Modified.	Date of Rash.	Date of Admission.	Result.	Date of Death or Discharge, and Number of Days in Hospital.
121	M. P.	F.	1/12	1, Garibaldi Terrace, Alfred Street, N. ..	Unknown	Unvaccinated	C. H., severe	20-2-1904 cir	Dead body found and removed in amb. by M.O.H.	Death	7-3-'04
122	T. L.	M.	37	1, Preston Terrace, Crown Street, Bulwell..	M. P., No. 94	V. i. inf., no marks	C.-semi, severe	8-3-1904	8-3-1904	Recovery	29-4-'04—52 days
123	E. G.	F.	37	14, Hockley	W. R., No. 97	V. i. inf., G., M 3	D., severe	9-3-1904	10-3-1904	Ditto	29-3-'04—19 „
124	S. A.	F.	1/12	61, Midland Crescent, Rupert Street ..	Ditto	Unvaccinated	C., very severe	8-3-1904	10-3-1904	Death	19-3-'04—9 „
125	A. L.	F.	30	55, Woodward Street	J. F., No. 126, post ..	V. i. inf., G., M 3	D., severe, but aborting..	9-3-1904	10-3 1904	Recovery	29-3-'04—19 „
126	J. F.	M.	29	7, Windmill Street, H. G.	C. S., No. 57	V. i. inf., G., M 4	D., severe, but aborting..	22-2-1904 cir	10-3-1904	Ditto	13-3-'04—3 „ cir.
127	W. E. H.	M.	18	11, Dame Agnes Street	T. P., No. 107	V. i. inf., G., M 3; ii., 11 days before rash..	D., mild, aborting ..	13-3 1904 Removed on	12-3-1904 strength of prodromals.	Ditto	2-4-'04—21 „
128	C. P.	M.	8	22, Kentwood Road	K. P., No. 101	Unvaccinated	C., severe	12-3 1904	12-3-1904	Recovery	10-6-'04—85 „
129	M. S.	F.	19	"Marquis of Hastings," Marple Street ..	M. P., No. 121	V. i. inf., G., M 4	D, mild, but very severe prodromals	10-3-1904	12-3-1904	Ditto	29-3-'04—17 „
130	G. C.	M.	42	53, Canal St., Common Lodging House, No. 58	M. A. Q., No. 101	V. i. inf., F., M 3	C.-semi, severe	13-3-1904	14-3-1904	Ditto	13-4-'04—30 „
131	R. L.	F.	28	15, Tyler Street	Ditto	V. i. inf., G., M 3	D., mild	13-3-1904	15-3-1904	Ditto	28-3-'04—13 „
132	H. S.	M.	18	1, Garibaldi Terrace, Alfred Street, N. ..	M. P., No. 121	V. i. inf., F., M 4	D., severe	15-3-1904	15-3-1904	Ditto	26-3-'04—45 „
133	A. S.	F.	28	1, Union Place, Glasshouse Street	M. A. Q., No. 100	V. i. inf., G., M 4	C.-semi, severe, but abrtg. very well mrkd. prodrmls.	14-3-1904	15-3-1904	Ditto	6-4-'04—22 „
134	E. S.	F.	33	69, Pym Street	E. M., missed case, Cathcart Terrace	V. i. inf., G., M 4	D., mild	16-3-1904	17-3-1904	Ditto	8-4-'04—22 „
135	F. W.	M.	22	Parr's Yard, Peter Street	Pomfret Street	V. i. inf., B., M 1	D., severe but aborting ..	16-3-1904	17-3-1904	Ditto	29-3-'04—12 „
136	E. M.	M.	64	53, Canal Street, Common Lodging House, No. 58. and Workhouse, few minutes only	M. A. Q., No. 100	V. i. inf., F., M 2	D., very severe	17-3-1904	19-3-1904	Ditto	26-5-'04—67 „
137	M. M.	F.	23	4, Oswald Terrace, Fisher Street, H. G. ..	E. M., missed case, Cathcart Terrace	Unvaccinated	D., severe but aborting ..	14-3 1904	18-3 1904	Ditto	8-4-'04—21 „
138	A. W.	F.	30	17, Lambert Street, H. G.	Unknown	V. i. inf., G., M 4	D., very mild, aborting ..	3-3-1904 cir	18-3-1904	Ditto	21-3-'04—3 „ cir.
139	A. T.	F.	20	16, Mary Terrace, Crocus Street	Unknown	Unvaccinated	C., very severe, miscarried of 7 mnths. child on night of 17-3	17-3-1904	18-3-1904	Ditto	3-5-'04—46 „
140	B. E. C.	F.	16	40, Traffic Street	E. M., missed case, Cathcart Terrace	Ditto	C.-semi, severe	17-3-1904	18-3-1904	Ditto	19-4-'04—32 „
141	A. F. H.	M.	21	37, Albert Grove	M. A. Q., No. 100	Ditto	C.-semi, severe	13-3-1904	18-3-1904	Ditto	29-4-'04—42 „
142	W. H.	M.	18	12, Elgin Street, Broad Marsh	E. M., missed case, Cathcart Terrace	V. i. inf., very good, M 3	D., very mild, aborting ..	18-3-1904	19-3-1904	Ditto	29-3-'04—10 „
143	J. D.	M.	30	6, Ridgeway Terrace, Ridgeway Street ..	F. D., 2nd missed case, Clarence Street	V. i. inf., F., M 3	D., mild	17-3-1904	19-3-1904	Ditto	8-4-'04—20 „
144	G. E. C.	M.	11	9, Lammas Street	W. B., No. 110 (tramp)	Unvaccinated	D., severe	19-3-1904	20-3-1904	Ditto	16-4-'04—27 „
145	H. D.	M.	25	53, Canal St., Common Lodging House, No. 58	U. H., No. 112	V. i. inf., F., M 2	D., mild	20-3-1904	20-3-1904	Ditto	6-4-'04—17 „
146	G. S.	M.	23	Ditto ditto	Ditto	V. i. inf., F., M 3	D., mild	20-3-1904	20-3-1904	Ditto	2-4-'04—13 „
147	E. W.	M.	34	17, Crown Street, Blue Bell Hill	G. W., No. 113	V. i. inf., G., M 2	D., severe	21-3-1904	22-3-1904	Ditto	30-4-'04—39 „
148	J. S.	M.	7	21, Bombay Street	W. R., No. 97	Unvaccinated	C.-semi, severe	8-3-1904	23-3-1904	Ditto	10-6-'04—48 „
149	T. S.	M.	15	Ditto	J. S., No. 148	V. i. inf., F., M 2	D., very mild, aborting ..	23-3-1904	23-3-1904	Ditto	2-4-'04—10 „
150	S. N.	F.	42	116, St. Ann's Well Road	E. S., missed case, Smithy Row, & 116, St. Ann's Well Road	V. i. inf., G., M 3	D., but very general rash (over whole body) ..	23-3-1904	24-3-1904	Ditto	8-4-'04—15 „
151	W. S.	M.	8	21, Bombay Street	J. S., No. 148	Unvaccinated until 8 days before rash ..	D., severe	24-3-1904	25-3-1904	Ditto	16-4-'04—22 „
152	E. S.	M.	54	Ditto	Ditto ..	Ditto ..	C., very severe	24-3-1904	25-3-1904	Ditto	20-5-'04—56 „
153	J. P.	M.	49	59, Rydal Grove, Vernon Avenue, Basford..		V. i. inf., F., M 3; ii. aged 25, no marks ..	C., very severe	24-3-1904	25-3-1904	Ditto	14-6-'04—81 „
154	W. C. M.	M.	1/12	11, Reform Terrace, Westminster Street ..	J. S., No. 148	Unvaccinated	D., severe	23-3-1904	25-3-1904	Ditto	16-4-'04—22 „
155	A. C.	F.	11	11, Lord Street, Windmill Lane	Ditto	Ditto	C, severe	26-3-1904	27-3-1904	Ditto	26-5-'04—60 „
156	C. P.	F.	50	37, Albert Grove	A. F. H., No. 141	V. i. inf., G, M 4; ii., 19-3 04, 7 days before rash	D., very mild, aborting ..	27-3-1904	27-3-1904	Ditto	8-4-'04—12 „
157	J. W. T.	M.	39	19, Glasshouse Street	G. C., No. 130	V. i. inf., G., M 3	D., severe	27-3-1904	28-3-1904	Ditto	16-4-'04—19 „
158	H. B.	M.	28	4, Wellington Street, Alfred Street C. ..	W. F. B., No. 159, post ..	V. i. inf., G., M 4	C.-semi, severe, but abrtg.	24-3-1904	29-3-1904	Ditto	20-4-'04—23 „
159	W. F. B.	M.	26	Ditto ..	F. P., No. 96	V. i. inf., G., M 4	D., mild	10-3-1904	Not removed.		

No. of Case.	Initials of Name.	Sex.	Age.	Address whence removed.	Source of Infection.	Conditions as regards Vaccination. V.—Vaccinated i.—Primary Vaccination, with number indicating age in years, or inf.(=under 1 year of age) at time. ii., iii., etc.,—Re-vaccination, with numbers ditto G.—good vaccn. B.—bad vaccn. F.—fair vaccn. M.—vaccn. marks, with number following.	Character of Attack. H.—Hæmorrhagic. C.—Confluent. D.—Discrete. V.M.—Very Mild. Mod.—Modified.	Date of Rash.	Date of Admission.	Result.	Date of Death or Discharge, and Number of Days in Hospital.
160	M. A. G.	F.	7	4, Coldham Street	J. S., No. 148	Unvaccinated	C., severe	27-3-1904	28-3-1904	Recovery	31-5-'04—64 days
161	J. S.	M.	5/12	4, Coldham Street	J. S., No. 148	Unvaccinated	D., mild	26-3-1904	28-3-1904	Ditto	7-4-'04—10 „
162	W. G.	M.	20	2, Independent Hill	W. F. B., No. 159	V. i. inf., F., M 4	D , mild	29-3-1904	29-3-1904	Ditto	19-4-'04—21 „
163	H. S.	M.	34	62, Lord Nelson Street	Ditto	V. i. inf., G., M 2	D., mild, but very severe prodromals, including purpuric rash	29-3-1904	30-3-1904	Ditto	15-4-'04—16 „
164	S. M.	M.	27	11, Reform Terrace, Westminster Street ..	J. S., No. 148	V. i. inf., G., M 4; ii. 25-3	D., mild, aborting rapidly	30-3-1904	30-3-1904	Ditto	19-4-'04—20 „
165	W. U.	M.	62	27, China Street, Bulwell	G. C., No. 130	V. i. inf., F., M 4	D., mild	29-3-1904	31-3-1904	Ditto	13-4-'04—13 „
166	H. W.	M.	37	26, Holgate Road, Wilford Grove	Pawnshop in neighbourhood where H. W. worked ..	V. i. inf., G., M 4	D., mild	29-3-1904	2-4-1904	Ditto	13-4-'04—11 „
167	E. S.	M.	1/2	21, Bombay Street	J. S., No. 148	Unvaccinated	D., mild	2-4-1904	2-4-1904	Ditto	13-4-'04—11 „
168	R. H.	F.	10	20, Kingston Street	T. H., No. 169, post ..	Ditto	D., mild	2-4-1904	2-4-1904	Ditto	13-4-'04—11 „
169	T. H.	M.	37	Ditto	J. B., No. 106	V. i. inf., G., M 4	D., mild	16-3-1904 cir	2-4-1904	Ditto	16-4-'04—14 „
170	E. A. S.	F.	23	59, Lea Street, Radford	J. F., No. 126	Unvaccinated	D., mild, but miscarried of 7 months child on 1-4	28-3-1904	5-4-1904	Ditto	22-4-'04—17 „
171	J. S.	M.	41	107, Merchant Street, Bulwell	Probably G.C., No. 130 ..	V. i. inf., G., M 4	D., mild	1-4-1904	5-4-1904	Ditto	19-4-'04—14 „
172	S. C.	F.	23	9, Lammas Street	G. E. C., No. 144	Unvaccinated until 21-3	Very mild, aborting ..	3-4-1904	5-4-1904	Ditto	13-4-'04—8 „
173	W. C.	M.	44	Ditto	Ditto	Unvaccinated until 21-3	Very mild, aborting ..	3-4-1904	5-4-1904	Ditto	13-4-'04—8 „
174	H. W.	F.	40	23, Bombay Street	T. S., No. 149	V. i. inf., F., M 4	D., severe..	Transferred from quarantine block 6-4-1904	8-4-1904	Recovery	to S. P. Hospital. 26-4-'04—18 „
175	H. S.	M.	3½	62, Lord Nelson Street	H. S., No. 163	Unvaccinated until 1-4-04	D., mild	10-4-1904	10-4-1904	Ditto	19-4-'04—9 „
176	A. L.	M.	10	7, Arthur Terrace, Storer Street	W. C. M., No. 154	Unvaccinated	D., Mild	10-4-1904	12-4 1904	Ditto	20-4-'04—8 „
177	R. C.	M.	34	The Loggerhead's Public House, 59, Narrow Marsh	T. S., No. 149	V. i. inf , G., M 2	D., Mild	11-4-1904	12-4-1904	Ditto	26-4-'04—14 „
178	C. L.	M.	18	Ditto ditto	Ditto	V. i. inf., G., M 4	Very slight aborting attack	11-4-1904	12-4-1904	Ditto	29-4-'04—17 „
179	T. J. (tramp)	M.	29	1, Knob Yard, Narrow Marsh, Com. Lodging House, No. 7	Outside City (Leicester) ..	V. i. inf., G., M 4	D., Mild	13-4-1904	16-4-1904	Ditto	29-4-'04—13 „
180	G. C.	M.	27	2, Sabina Terrace, Sabina Street	L. H., missed case, 34, Walker Street	V. i. inf., G., M 4	D., except for two patches of confluence on chest and face	16-4-1904	17-4-1904	Ditto	10-5-'04—23 „
181	E. H.	M.	32	29, Wright Street, Blue Bell Hill	Ditto	V. i. inf., G., M 4	D., severe	18-4-1904	19-4-1904	Ditto	26-5-'04—37 „
182	G. P.	M.	26	9, Crown Street, Blue Bell Hill	Ditto	V. i. inf., G., M 4	D., mild	18-4-1904	20-4-1904	Ditto	29-4-'04—9 „
183	S. R.	M.	39	4, Mill Terrace, Forest Road, Bulwell ..	J. S., No. 171	V. i. inf., G., M 4	One characteristic pock only, no other definite marks	19-4-1904	20-4-1904	Ditto	26-4-'04—6 „
184	F. P.	F.	22	5, Fleet Place, Narrow Marsh	Outside City (Derby) ..	V. i. inf., G., M 2	D., mild	15-4-1904	21-4-1904	Ditto	3-5-'04—12 „
185	A. F., alias L.	F.	33	9, Chard Terrace, Chard Street, N. B. ..	J. S., No. 171	V. i. inf., G., M 4	D.,severe,patient 7 mnths. pregnant but did not abrt.	21-4-1904	22-4-1904	Ditto	20-5-'04—28 „
186	M. E. B.	F.	38	59, Barker Gate	C. L., No. 178	V. i. inf., F., M 3	D., mild	23-4-1904	23-4-1904	Ditto	3-5-'04—10 „
187	M. C.	F.	18	4, Brailsford Road, Dunkirk	R. H., No. 188, post ..	V. i. inf., G., M 3	D., mild	23-4-1904	25-4-1904	Ditto	3-5-'04—8 „
188	R. H.	M.	25	19, City Road, Dunkirk	Outside City (Derby) ..	V. i. inf., F., M 3	D., mild	8-4-1904 cir	25-4-1904	Ditto	30-4-'04—5 „
189	E. A.	M.	50	Red Lion Inn, Narrow Marsh	C. L., No. 178	V. i. inf., F., M 3	D., mild	25-4-1904	25-4-1904	Ditto	10-5-'04—15 „
190	S. A. P.	F.	25	9, Crown Street, Bulwell	L. H., missed case, 34, Walker Street	V. i. inf., G., M 4; ii., apparently without success	D., severe	20-4-1904 cir	29-4-1904	Ditto	10-5-'04—11 „
191	L. H.	M.	30	34, Walker Street	Outside City (Sheffield) ..	Unvaccinated	C.-semi	26-3-1904	30-4-1904	Ditto	3-5-'04—3 „
192	C. U.	F.	29	52, Keith Street, Bulwell	J. U.,missed case,infected by W.U.,27,China St.,No.165	Ditto	C., severe	27-4-1904	30-4-1904	Ditto	9-8-'04—101 „
193	M. R.	F.	37	4, Pierrepont Yard, Pierrepont Street ..	G.R., missed case infected by L.H.,34,Walker St.,No.191	V. i. inf., G., M 4	D., mild	2-5-1904	5-5-1904	Ditto	20-5-'04—15 „
194	S. B.	M.	30	62, Corporation Road	L. B., No. 195, post ..	V. i. inf. F., M. 3	D., mild	5-5-1904	5-5-1904	Ditto	17-5-'04—12 „
195	L. B.	F.	29	Ditto	L. H., No. 191	V. i. inf., B., M 1	D., mild	18-4-1904 cir	5-5-1904	Ditto	10-5-'04—5 „
196	H. W.	M.	7	25, Byron Street, Bulwell	J. U., missed case	Unvaccinated	C.-semi, severe	8-5-1904	8-5-1904	Ditto	8-7-'04—62 „
197	L. H., at B.'s	F.	22	13, Drake Street	A. B., No. 198, post, missed case infected by L.H.,No.191	V. i. inf., G., M 2	D., mild	8-5 1904	9-5-1904	Ditto	20-5-'04—17 „

No. of Case.	Initials of Name.	Sex.	Age.	Address whence removed.	Source of Infection.	Conditions as regards Vaccination. V.—Vaccinated. i.—Primary Vaccination, with number indicating age in years, or inf.(=under 1 year of age) at time. ii., iii., etc.,—Re-vaccination, with numbers ditto. G.—good vaccn. B.—bad vaccn. F.—fair vaccn. M.—vaccn. marks, with number following.	Character of Attack. H.—Haemorrhagic. C.—Confluent. D.—Discrete. V.M.—Very Mild. Mod.—Modified.	Date of Rash.	Date of Admission.	Result.	Date of Death or Discharge, and Number of Days in Hospital.
198	W. H.	M.	32	34, Foundry Yard, Leen Side	S.A.F., No. 202, post, missed case, infected by R.C.&C.L., Nos. 177 & 178	V. i. inf., G., M 4; ii., 12 years ago, G., M 2	D., mild, but complicated with syphilis	9-5-1904	9-5-1904	Recovery	21-6-'04—43 days
199	L. S.	F.	5	28A, Cowley Street, Old Basford	A. F., No. 185	Unvaccinated	H., malignant	6-5-1904	10-5-1904	Death	12-5-'04—2 "
200	L. H. F. W.	F.	1/12	5, Brewery Street, Pinder Street	S. A. F., No. 202, post ..	Ditto	C., severe	8-5-1904	10-5-1904	Ditto	15-5-'04—5 "
201	H. F.	F.	22	16, Knotted Alley, Narrow Marsh	Ditto	V. i. inf., G., M 4	D., mild	9-5-1904	11-5-1904	Recovery	17-5-'04—6 "
202	S. A. F.	F.	7	Ditto	R. C. & C. L., Nos. 177, & 178	Unvaccinated	C.-semi, but small pocks	23-4-1904 cir	11-5-1904	Ditto	13-5-'04—2 "
203	J. F.	M.	3/12	Ditto	S. A. F., No. 202	Ditto until 9 days ago	D., mild	9-5-1904	11-5-1904	Ditto	17-5-'04—6 "
204	E. H.	M.	30	1, Paradise Place, Broad Marsh	Ditto	V. i. inf., G., M 1	C., aborting early ..	11-5-1804	12-5-1904	Ditto	7-6-'04—26 "
205	C. W.	F.	33	17, Knotted Alley, Narrow Marsh	Ditto	V. i. inf., G., M 4	D., mild, complicated with double ophthalmia ..	11-5-1904	12-5-1904	Ditto	8-7-'04—57 "
206	J. K.	M.	31	17, Ditto	Ditto	V. i. inf., G., M 4	D., mild	11-5-1904	12-5-1904	Ditto	24-5-'04—12 "
207	K. B.	F.	31	17, Ditto	Ditto	V. i. inf., G., M 4	D., mild	11-5-1904	12-5-1904	Ditto	3-6-'04—22 "
208	A. B.	M.	10	21, Ditto	Ditto	Unvaccinated	C.-semi, very severe ..	15-5-1904	16-5-1904	Ditto	8-7-'04—53 "
209	E. S.	F.	12	17, Ditto	Ditto	Ditto	C.-semi, severe	20-5-1904	21-5-1904	Ditto	21-6-'04—31 "
210	G. S.	M.	33	28A, Cowley Street, Old Basford	L. S., No. 199	V. i. inf., G., M 2; ii., 10-5, G., M 4 ..	D., mild, aborting, but very severe prodromals including measly rash..	20-5-1904	21-5-1904	Ditto	7-6-'04—17 "
211	E. S.	F.	37	Ditto	Ditto	V. i. inf., G., M 3; ii., 10-5, G., M 4 ..	Two aborting papules only, but very severe prodromals incldg. measly rash	20-5-1904	21-5-1904	Ditto	30-5-'04—9 "
212	C. L.	M.	55	Ditto	Ditto	V. i. inf., G., M 4	C., on face and arms, very severe prodromals ..	23-5-1904	25-5-1904	Ditto	1-7-'04—37 "
213	S. A.	M.	27	13, Knotted Alley, Narrow Marsh	H. F., No. 201	V. i. inf., G., M 3	D., mild, aborting ..	24-5-1904	26-5-1904	Ditto	10-6-'04—15 "
214	H. F. A.	M.	58	Ditto	Ditto	V. i. inf., G., M 3; ii., 26 years ago	D., mild, aborting ..	24-5-1904	26-5-1904	Ditto	10-6-'04—15 "
215	N. A.	F.	22	Ditto	Ditto	V. i. inf., G., M 4	D., mild, aborting ..	25-5-1904	26-5-1904	Ditto	7-6-'04—12 "
216	R. H.	M.	1/12	177, Forest Road West	H. B., missed case infected outside City	Unvaccinated	C., in parts, very severe..	26-5-1904	27-5-1904	Ditto	8-7-'04—42 "
217	A. A.	F.	21	9, Brewery Street	L. H. F. W., No. 200 ..	Ditto	C.-semi, in patches ..	27-5-1904	27-5-1904	Ditto	14-6-'04—18 "
218	E. S.	F.	7	28A, Cowley Street, Old Basford	L. S., No. 199	Ditto until 21-5	C.-semi, severe, but aborting in parts	28-5-1904	29-5-1904	Ditto	23-6-'04—25 "
219	J. W.	M.	39	Aslockton, Notts. (servant of travelling showman), removed from Out-patient Dept. of Nottm. General Hospital	Outside City (Bingham) .	V. i. inf., G., M 3	C.-semi, severe	28-5-1904	1-6-1904	Ditto	8-7-'04—36 "
220	D. K.	F.	8	1, Milton Terrace, Independent Street ..	F.W., missed case, 3, Milton Place, which was surreptitiously remvd. to Golden Lane	Unvaccinated (exemption certificate) ..	D., severe	31-5-1904	1-6-1904	Ditto	26-6-'04—25 "
221	L. H.	F.	23	177, Forest Road West	R. H., No. 216	V. i. inf., G., M 4; ii., 27-5, G., M 4 ..	D., mild, abrtg. very early	5-6-1904	6-6-1904	Ditto	5-7-'04—29 "
222	E. L.	M.	21	28A, Cowley Street, Old Basford	C. L., No. 212	V. i. inf., G., M 2; ii., 26-5, G., M 4 ..	D., very mild, aborting..	8-6-1904	8-6-1904	Ditto	14-6-'04—6 "
223	A. J.	F.	24	49, Mount Street, New Basford	S. A., No. 213	Unvaccinated	D., severe	6-6-1904	9-6-1904	Ditto	1-7-'04—22 "
224	A. E. S.	M.	8	4, Ben Street, Radford	D. K., No. 220	Ditto	D., severe	14-6-1904	14-6-1904	Ditto	2-8-'04—49 "
225	K. S.	F.	36	Ditto	Ditto	V. i. inf., G., M 2	D., severe	17-6-1904	17-6-1904	Ditto	5-8-'04—49 "
226	M. S.	F.	34	Ditto	Ditto	V. i. inf., F., M 3	D., mild	17-6-1904	17-6-1904	Ditto	19-7-'04—32 "
227	R. W.	F.	14	22, Golden Lane, Fisher Gate	J. H. W., No. 228 post ..	Unvaccinated	C.-semi, severe	16-6-1904	17-6-1904	Ditto	26-7-'04—39 "
228	J. H. W.	M.	6	Ditto	L. H., No. 221	Ditto	C.-semi, severe	30-5-1104	17-6-1904	Ditto	30-6-'04—13 " c'r.
229	G. M.	M.	60	48, Wilford Grove	Outside City (Hucknall Dist.)	V. i. inf., M 4	D., severe	18-6-1904	18-6-1904	Ditto	8-7-'04—20 "
230	G. L.	F.	14	"Stag & Pheasant," Poplar Street	J. H. W., No. 228	Unvaccinated	D., mild	17-6-1904	19-6-1904	Ditto	1-7-'04—12 "
231	F. P.	M.	22	16, Fisher Gate..	Ditto	V. i. inf., G., M 4	D., mild, aborting, intercostal pain in place of back ache	18-6-1904	20-6-1904	Ditto	1-7-'04—11 "
232	E. M.	F.	40	41, Annesley Street	F. G. M., No. 235, post ..	V. i. inf., G., M 4	D., very mild	19-6-1904	20-6-1904	Ditto	5-7-'04—15 "
233	W. M.	M.	16	Ditto	Ditto ..	Unvaccinated	C.-semi, severe	18-6-1904	20-6-1904	Ditto	26-7-'04—36 "
234	G. M.	M.	40	Ditto	Ditto ..	V. i. inf., G., M 4	D., mild, but some very large pocks	18-6-1904	20-6-1904	Ditto	19-7-'04—28 "

No. of Case.	Initials of Name.	Sex.	Age.	Address whence removed.	Source of Infection.	Conditions as regards Vaccination. V.—Vaccinated. i.—Primary Vaccination, with number indicating age in years, or inf.(=under 1 year of age) at time. ii., iii., etc.,—Re-vaccination, with numbers ditto. G.—good vaccn. B.—bad vaccn. F.—fair vaccn. M.—vaccn. marks, with number following.	Character of Attack. H.—Hæmorrhagic. C.—Confluent. D.—Discrete. V.M.—Very Mild. Mod.—Modified.	Date of Rash.	Date of Admission.	Result.	Date of Death or Discharge, and Number of Days in Hospital.
235	F. G. M.	M.	18	41, Annesley Street	Narrow Marsh, where he acted as rent collector	V. i. inf., G., M 4	D., mild	1 or 2-6-1904	20-6-1904	Recovery	5-7-'04—15 days
236	W. S. H.	M.	39	"Half Moon," Carter Gate	J. H. W., No. 228	V. i. inf., G., M 3	D., very mild	18-6-1804	21-6-1904	Ditto	1-7-'04—10 „
237	F. S.	M.	15	1, King George Street, Woolpack Lane	J. H. W., No. 228	Unvaccinated	D., mild	19-6-1904	21-6-1904	Ditto	8-7-'04—17 „
238	W. J.	M.	53	49, Mount Street, Basford	A. J., No. 223	V. i. inf., G., M 2; ii., 9-6, G., M 4	D., severe, but aborting	21-6-1904	21-6-1904	Ditto	26-7-'04—35 „
239	M. J.	F.	50	Ditto	Ditto	V. i. inf., G., M 3; ii., 9-6, G., M 4	D., mild	21-6-1904	21-6-1904	Ditto	8-7-'04—17 „
240	A. W. J.	M.	29	Ditto	Ditto	V. i. inf., G., M 3; ii., 9-6, G., M 4	D., mild	21-6-1904	21-6-1904	Ditto	1-7-'04—10 „
241	S. D.	F.	42	18, Golden Lane, Fisher Gate	J. H. W., No. 228	V. i. inf., G., M 3	D	21-6-1904	22-6-1904	Ditto	5-7-'04—13 „
242	J. A.	M.	29	21, Golden Lane, Fisher Gate	E. L., No. 222	V. i. inf., G., M 4	D., mild	22-6-1904	23-6-1904	Ditto	5-7-'04—12 „
243	L. A.	F.	28	Ditto	Ditto	V. i. inf., G., M 3	D., mild	19-6-1904	23-6-1904	Ditto	5-7-'04—12 „
244	A. A.	F.	3	Ditto	Ditto	Unvaccinated	C.-semi, severe	22-6-1904	23-6-1904	Ditto	22-7-'04—29 „
245	H. E.	M.	27	4, Clare Court, Glasshouse Street	J. H. W., No. 228	Ditto	C., severe	21-6-1904	23-6-1904	Ditto	26-7-'04—33 „
246	S. W.	F.	31	28, Golden Lane, Fisher Gate	Ditto	V. i. inf., G., M 3	D., modified	24-6-1904	25-6-1904	Ditto	5-7-'04—10 „
247	J. W.	M.	40	4, Moreland G., Moreland St., Meadow Lane	Ditto	V. i. inf., F., M 4	D., mild, modified	23-6-1904	25-6-1904	Ditto	8-7-'04—13 „
248	C. G.	M.	27	98, Narrow Marsh	Ditto	V. i. inf., F., M 4	D., severe, aborting	25-6-1904	26-6-1904	Ditto	8-7-'04—12 „
249	J. S.	M.	31	11, Pritchard Terrace, Lotus Street	R. H., No. 250 post, missed case	Unvaccinated	C., severe	29-6-1904	29-6-1904	Ditto	5-8-'04—37 „
250	R. H.	M.	28	Ditto	J. H. W., No. 228	V. i. inf., F., M 4	D., severe	15-6-1904	29-6-1904	Ditto	5-7-'04—6 „
251	H. H.	F.	39	18, Agnes Street	Missed case, No. 250	V. i. inf., G., M 4	D., very severe	30-6-1904	2-7-1904	Ditto	19-8-'04—49 „
252	F. W., at K.'s	M.	27	2, Chaucer Terrace, Harlaxton Street	Ditto	V. i. inf., G., M 4	D., mild	1-7-1904	2-7-1904	Ditto	19-7-'04—17 „
253	M. A. S.	F.	20	1, King George Street, Woolpack Lane	F. S., No. 254, post, missed case	V. i. inf., M 3; ii., 21-6	D., mild, aborting	1-7-1904	3-7-1904	Ditto	12-7-'04—9 „
254	F. S.	M.	41	Ditto	J. H. W., No. 228	V. i. inf., F., M 3	D., severe	16-6-1904	3-7-1904	Ditto	22-7-'04—19 „
255	G. S.	M.	48	7, Carlton Court, Platt Street	R. H., No. 250	Unvaccinated	C., severe	2-7-1904	4-7-1904	Ditto	26-7-'04—22 „
256	T. P.	M.	19	14, Pinder Street	F. S., No. 237	V. i. inf., B., M 4	D., mild	5-7-1904	5-7-1904	Ditto	19-7-'04—14 „
257	E. M.	F.	40	27, St. Alban's Road, Bulwell	Probably from Sneinton Market where she shops	V. i. inf., G., M 4	D., severe	12-7-1904	13-7-1904	Ditto	5-8-'04—23 „
258	V. B.	F.	3 5/12	2, Carlton Court, Platt Street	G. S., No. 255	Unvaccinated	C.-semi, severe	16-7-1904	16-7-1904	Ditto	16-8-'04—31 „
259	G. H.	M.	27	32, Walker Street	Ditto	V. i. inf., G., M 3	D., severe, aborting	18-7-1904	19-7-1904	Ditto	5-8-'04—17 „
260	A. N.	F.	41	6, Carlton Court, Platt Street	V. B., No. 258	V. i. inf., F., M 4	C.-semi, severe	29-7-1904	30-7-1904	Ditto	23-8-'04—24 „
261	H. S., at J. W.'s	M.	7	5, Forest Cottages, Bestwood Road, Bulwell	J. H. W., No. 263, post, missed case	Unvaccinated	C.-semi, severe	30-7-1904	1-8-1904	Ditto	26-8-'04—25 „
262	M. S.	F.	40	Ditto	Ditto „	V. i. inf., G., M 4	D., severe	31-7-1904	1-8-1904	Ditto	23-8-'04—22 „
263	J. H. W.	M.	19	Ditto	E. W., No. 264, post „	V. i. inf., F., M 3	D., mild, severe prodromals, including diffuse measly rash	15-7-1904	Not removed.		
264	E. W.	F.	14	Ditto	P. W., No. 265 „ „	V. i. inf., G., M 3	D., extremely mild	23-6-1904	Ditto	Ditto	
265	P. W.	F.	12	Ditto	H. W., No. 196, missed case, 25, Byron Street	V. i. inf., F., M 3	D., very mild	30-5-1904	Ditto	Ditto	
266	J. G.	M.	45	58, Poplar Street	G. H., No. 259	Unvaccinated	C., severe	1-8-1904	1-8-1904	Recovery	9-9-'04—39 „
267	C. S.	M.	29	4, Forest Cottages, Bestwood Road, Bulwell	H. S., No. 261	V. i. inf., G., M 4	D., mild	14-8-1904	14-8-1904	Ditto	30-8-'04—16 „
268	D. S.	F.	5	Ditto	Ditto	Unvaccinated	D., mod., very small pocks	14-8-1904	14-8-1904	Ditto	9-9-'04—26 „
269	A. S.	F.	28	Ditto	Ditto	V. i. inf., G., M 4	D., mild	15-8-1904	17-8-1904	Ditto	26-8-'04—10 „
270	J. S.	M.	63	13, Austin Street, Bulwell	Ditto	V. i. inf., M 2	C., severe	20-8-1904	25-8-1904	Ditto	4-10-'04—40 „
271	W. S.	M.	28	69, Talbot Street	Outside City, H's., 108, Dairyhouse Road, Derby	V. i. inf., G., M 4	D., very mild	23-8-1904 cir	27-8-1904	Ditto	2-9-'04—6 „
272	M. W.	F.	28	Ditto	W. S., No. 271	V. i. inf., G., M 4; ii., 27-8	D, very mild, aborting	9-9-1904	10-9-1904	Ditto	23-9-'04—13 „
273	W. B.	M.	31	3, Moor Bridge Cottages, Bulwell	J. B., No. 278, post, missed case	V. i. inf., G., M 3	D., severe, unmod.	24-9-1904	23-9-1904	Ditto	18-10-'04—25 „
274	F. B.	M.	6	Ditto	Ditto missed case	Unvaccinated	D., severe	22-9-1904	23-9-1904	Ditto	18-10-'04—25 „
275	W. B.	M.	8	Ditto	Ditto ditto	Ditto	C.-semi, severe	23-9-1204	23-9-1904	Ditto	21-10-'04—28 „
276	A. B.	F.	3	Ditto	Ditto ditto	Ditto	D., severe	23-9-1904	23-9-1904	Ditto	18-10-'04—25 „

No. of Case.	Initials of Name.	Sex.	Age.	Address whence removed.	Source of Infection.	Conditions as regards Vaccination. V.—Vaccinated. i.—Primary Vaccination, with number indicating age in years, or inf.(= under 1 year of age) at time. ii., iii., etc.,—Re-vaccination, with numbers ditto. G.—good vaccn. B.—bad vaccn. F.—fair vaccn. M.—vaccn. marks, with number following.	Character of Attack. H.—Haemorrhagic. C.—Confluent. D.—Discrete. V.M.—Very Mild. Mod.—Modified.	Date of Rash.	Date of Admission.	Result.	Date of Death or Discharge, and Number of Days in Hospital.
277	E. B.	F.	30	3, Moor Bridge Cottages, Bulwell	J. B., No. 278, post, missed case	V. i. inf., G., M 3	D., mild		24-9-1904	Recovery	12-10-'04—15 days
278	J. B.	M.	7	Ditto	A.S., No. 269 (missed case)	Unvaccinated	D., mild, but unmod.	7-9-1904 cir	23-9-1904	Ditto	12-10-'04—15 „
279	W. H. P.	M.	9	4, Helmet Yard, Hazel Street, Bulwell	J. B., No. 278	Unvaccinated	C.-semi, very severe	27- 9-1904	28- 9-1904	Ditto	11-11-'04—44 „
280	W. A. G.	M.	8	22, Merchant Street, Bulwell	Ditto	Ditto	C.-semi, severe	30- 9-1904	1-10-1904	Ditto	8-11-'04—38 „
281	E. G.	F.	2	Ditto	W. A. G., No. 280	Ditto	C.-semi, severe	13-10-1904	13-10-1904	Ditto	2-11-'04—21 „
282	M. E. G.	F.	1 2/12	Ditto	Ditto	Ditto	C. semi, severe	13-10-1904	13-10-1904	Ditto	11-11-'04—29 „
283	C. J. G.	M.	25	9, Belle Vue Road	Outside City (Derby)	V. i. inf., G., M 4	C.-semi. in patch on face, slight elsewhere	10-10-1904	11-10-1904	Ditto	25-10-'04—14 „
284	H. C.	M.	12	1, Moor Bridge Cottages, Bulwell	K. C., No. 285, post, missed case	Unvaccinated	H., malignant	13-10-1904	13-10-1904	Death	16-10-'04—3 „
285	K. C.	F.	39	Ditto	J. B., No. 278	V. i. inf., G., M 4	D., mild	28- 9-1904	13-10-1904	Recovery	20-10-'04—7 „
286	E. D.	F.	7	17, Bancroft Street, Bulwell	Ditto	Unvaccinated	D., severe	23- 9-1904	14-10-1904	Ditto (for disinfection only).	15-10-'04—1 „
287	S. H.	M.	35	17, Barry Street, Bulwell	K. C., No. 285	V. i. inf., G., M 4	D., mild	14-10-1904	17-10-1904	Recovery	28-10-'04—11 „
288	B. M. S.	F.	27	259, Arkwright Street	Missed case, 4, Blue Bell Hill, which derived infection from Moor Bridge	V. i. inf., G., M 2	D., mild, large pocks	17-10-1904	20-10-1904	Ditto	8-11-'04—19 „
289	W. R.	M.	34	13, Knob Yard, Narrow Marsh	Outside City, probably	V. i. inf., F., M 2	C.-semi, severe	21-10-1904	21-10-1904	Ditto	29-11-'04—39 „
290	P. B.	M.	30	10, Heskey Street, and Leeds	Outside City (Leeds), whence patient came the day before rash	V. i. inf., F., M 3	D., mild	25-10-1904	25-10-1904	Ditto	8-11-'04—14 „
291	J. W.	M.	9	50, Kett Street, Bulwell	E. W. or A. W., Nos. 292 and 293, post	Unvaccinated	D., severe	27-10-1904	26-10-1904	Ditto	6-12-'04—41 „
292	E. W.	M.	3½	Ditto	B. family, Nos. 273 to 278, 3, Moor Bridge Cottages	Ditto	C., severe	10-10-1904	26-10-1904	Ditto	3-1-'05—60 „
293	A. W.	M.	6	Ditto	Ditto	Ditto	D., severe	10-10-1904	26-10-1904	Ditto	13-12-'04—38 „
294	C. E.	M.	30	9, Magson Terrace, Seymour Street	E. B., No. 297, post, missed case	V. i. inf., F., M 2	D., mild	28-11-1904	2-12-1904	Ditto	16-12-'04—14 „
295	G. H. T.	M.	30	106A, Dame Agnes Street	Ditto	V. i. inf., G., M 3	D., mild	4-12-1904	4-12-1904	Ditto	16-12-'04—12 „
296	E. W.	F.	18	80, Seymour Street	From Sister, L. W., missed case, infected by E.B., 82, Seymour Street	Unvaccinated	C.-semi, severe	2-12-1904	5-12-1904	Ditto	10-1-'05—36 „
297	E. B.	F.	8	82, Ditto	Missed case, 4, Blue Bell Hill	Ditto	C., severe	20-10-1904 cir	6-12-1904	Ditto	13-12-'04—7 „
298	T. B.	M.	22	82, Ditto	E. B., No. 297	Ditto	D., but well marked	18 to 20-11-'04	6-12-1904	Ditto (for disinfection only).	9-12-'04—3 „
299	A. S.	F.	21	9, Coburg Square, Walker Street	Missed case, L. W., 80, Seymour Street	V. i. inf., F., M 3	D., mild	6-12-1904	10-12-1904	Ditto	23-12-'04—13 „
300	L. G.	F.	18	128, Bradford Street, Bulwell	Persons resident outside, but working inside City. Rectory Rd., W. Bridgford, and Russell Street, Nottm.	V. i. inf., F., M 4	D., very mild	10-12-1904	11-12-1904	Ditto	23-12-'04—13 „
301	E. O.	F.	14	11, Oliver Street	Ditto	V. i. inf., G., M 4	D., mild	11-12-1904	12-12-1904	Ditto	30-12-'04—18 „
302	P. C.	M.	7	76, Seymour Street	Missed case, L. W., 80, Seymour Street	Unvaccinated	D., mild	10-12-1904	12-12-1904	Ditto	30-12-'04—18 „
303	E. D.	F.	19	370, Denman Street	Persons resident outside, but working inside City. Rectory Rd., W. Bridgford, and Russell Street, Nottm.	Ditto	D., severe	13-12-1904	14-12-1904	Ditto	3-1-'05—20 „
304	W. S. S.	M.	14	50, Sneinton Boulevard	E. W., No. 296	Ditto	C.-semi, very severe	17-12-1904	19-12-1904	Ditto	24-1-'05—36 „
305	E. M.	F.	21	11, Oliver Street	Ditto	Ditto until 12-12-1904, vac. typical	C.-semi, severe	22-12-1904	22-12-1904	Ditto	24-1-'05—33 „
306	E. G.	F.	7	128, Bradford Street, Bulwell	L. G., No. 300	Ditto until 11-12-1904, ditto	D., severe, but partially aborting	21-12-1904	23-12-1904	Ditto	24-1-'05—32 „
307	B. S.	M.	8	171, Gladstone Street, New Basford	Missed case (sister), M. S., infected by missed case, L. W., 80, Seymour Street	Unvaccinated	C., very severe	24-12-1904	25-12-1904	Ditto	17-2-'05—53 „
308	E. S.	F.	40	6, Sutton Street, Meadow Lane	Missed case (daughter Annie), infected by T. B., No. 298	V. i. inf., F., M 4	C.-semi, severe	28-12-1904	30-12-1904	Ditto	24-1-'05—25 „

Vaccination.—It is a matter alike for surprise and regret that, notwithstanding the outbreak of small-pox, the amount of primary Vaccination carried out in Nottingham during 1904, as measured by the proportion of children born who were successfully vaccinated, was less than during either of the two immediately preceding years. The proportion was 68·20 for 1904 (69·54 for the first half year, and 66·87 for the second). The proportion for 1903 was 70·96, and

Vaccination in Nottingham Union. Summary of Statistics, 1883—1904.

	Births.	Percentage.			Certified as Insusceptible of Vaccination.	Had Small-Pox.	Certificates granted to "Conscientious Objectors."
		Successfully Vaccinated.	Died Unvaccinated.	Not finally accounted for.			
Average of 5 yrs. 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	...	261
1903 2nd do.	3506	70·02	12·55	7·81	5	1	214
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

† 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.

for 1902, 70·97. The falling off is not very considerable, but the movement is in the wrong direction, and the inference is inevitable that if people decline to avail

themselves of the protection of vaccination for their children when the danger of small-pox infection is at their doors, they are still less likely to do so when it becomes more remote—as, for example, when the present outbreak shall have completely subsided.

The only true remedy for the existing unsatisfactory state of matters as regards vaccination is to make the law affecting primary vaccination more stringent, and to introduce compulsory re-vaccination. The medical profession, who know most about vaccination and small-pox, are almost unanimously in favour of this course, and we have the case of Germany for example of the excellent results to be obtained from it.

The lack of uniformity in the periods for which the vaccination statistics are given in the accompanying table is explained by the fact that a full year's vaccination figures are often not available at the time when the Health Report is published, and I have preferred to give an incomplete return of vaccination rather than no return at all.

Measles.—There was apparently little to note about the recrudescence of measles during the third and fourth quarters of 1904, beyond the fact that it recurred in ordinary epidemic form after a somewhat shorter interval than usual—the common interval between ordinary epidemic maxima being two years, and that obtaining in this instance only 18 months. During 1903 the outbreak began in the north and spread steadily southward. In 1904 the exact converse occurred. The disease began in the extreme south, and spread northward. At the close of the year it was still rapidly extending, and as it extended acquiring a greater severity of type than characterised its earlier stages. Although this is a matter belonging to the current year, and will be dealt with later on, I cannot

forbear mentioning two facts which have come out in the course of our enquiries respecting this last outbreak. These are *(a)* that a much larger number of fatalities than usual occurred in the early stages of attack, especially in the first week; and *(b)* that a much larger proportion of the deaths than usual occurred among patients aged from 5 years upwards. The proportion here was from 15 per cent. to 20 per cent., as compared with a normal 10 per cent.

Deaths from Measles, during each of the Four Quarters of 1904, in the Registration Sub-Districts of the City.

District	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Totals.
Bulwell.. ..	..	..	..	6	6
N.W...	..	..	1	6	7
N.E.	..	..	2	8	10
S.W.	..	1	..	4	5
S.E.	..	..	3	13	16
Totals	..	1	6	37	44

It will be remembered that we are dependent principally upon the school authorities for the notification of measles. I regret to say that much of the information sent us from this source is too late to be useful for anything but statistical purposes.

On many occasions I have expressed the opinion that the attendance of children under five years of age at ordinary indoor schools was to be deprecated, and that the only serious argument in its favour was that it enabled the working class mother more readily to spare the elder girls of school age for attendance at school. I am pleased, therefore, to note that the Board of Education have now at length decided that they will not insist upon the provision of school accommodation for children under five

years of age, but will "give the Local Education Authority complete discretion on this point." Many Education Authorities, including the Education Committee of this City, are now wisely availing themselves of this freedom of choice in discontinuing as a general practice the provision of infant schools.

Without reference to the reports of Commissions and Committees, anyone interested in this subject can satisfy himself of the harmful effect of close school attendance upon young children, by comparing the aspect and condition of a group of them after a long spell of school, and freedom from school, respectively.

I have mentioned this subject under this heading because the infant schools have hitherto been one of the most fruitful sources of infection in connection with epidemics of measles, and extremely difficult to deal with. The usual particulars of school closure for measles and other complaints will be found at the end of this section (on epidemic diseases in general).

The number of deaths in the City attributed to measles during the year was 44, and 37 of these were in the last quarter. Deaths occurred in all the Sub-Districts, and ranged from 5 in S.W., to 16 in S.E. The total deaths correspond with a rate per 1,000 of 0·18 (18 per 100,000), which is almost exactly half the mean rate for the previous 10 years. The death-rate from measles in England and Wales during 1904 was 0·36, in the 76 great towns 0·47, and in London 0·49.

Scarlet Fever.—The number of cases of scarlet fever notified during 1904 was 1,189, as compared with 1,420, 966, 918, 1,394, and 2,500 during each of the preceding five years, respectively. The number of separate houses invaded during 1904 was

963. The case mortality was equal to 2·3 per cent. as against 2·4 per cent. during 1903. 460 cases, or 39 per cent. of all were removed to Bagthorpe Hospital. These 460, with 80 remaining at the close of 1903, make a total of 540 cases (of scarlet fever) under treatment in that institution during 1904. Further details of the hospital cases will be found in the hospital report. I shall here, therefore, only compare the respective rates of mortality among hospital and home cases.

Of the 540 cases treated in hospital, 9 ended fatally. The hospital case mortality was, therefore, equal to 1·66 per cent. Of the 729 cases remaining at home, 18 ended in death. The case mortality here is equal to 2·5 per cent.

I am unable to accept the argument advanced by uncompromising opponents of hospital isolation, that the difference is explained by the large number of undetected cases in the "Home" column. I am strongly of opinion that a large part at least of the almost constant difference in favour of the hospital is due to the better nursing, treatment, and general circumstances of the hospital, as compared with the (average) home patient.

The distribution of the cases and deaths over the ordinary age-periods were as follows: 0-1 years, 9 non-fatal cases; 1-5 years, 366 cases and 10 deaths; 5-15 years, 647 cases and 17 deaths; 15-25 years, 140 cases and 1 death; 25-35 years 39 cases, and 1 death; 35-45 years, 12 non-fatal cases; 45-55 years, 2 non-fatal cases; 55-65 years, 2 non-fatal cases.

The relative mortality was, as usual, highest in the 1-5 years age-period, but, being equal only to a case-mortality of 2·7 per cent., compared very favourably with the figures of other recent years.

The same, however, cannot be said of the case death-rate in the 5-15 years period. This was equal to 2·6 per cent., a high rate as compared with previous records. The deaths above 15 years were only 2, and the cases 195; the death-rate among adults, therefore, was low.

Notifications of Scarlet Fever, during each of the Four Quarters of 1904, in the Registration Sub-Districts of the City.

District.	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Totals.
Bulwell	40	76	80	107	303
N.W...	69	33	31	51	184
N.E.	55	37	66	75	233
S.W.	53	48	35	49	185
S.E.	81	40	54	107	282
Totals	298	234	266	389	1187

The distribution of the disease over the City during each quarter of the year is given in the accompanying table. It will be seen that it was extremely general, and for the most part uniform.

The death-rate from scarlet fever in Nottingham during 1904 was equal to 0.11 per 1,000 living (11 per 100,000). The average annual rate for the 10 years ended with 1903 was 0·16. The scarlet fever death-rate for 1904 in England and Wales was 0·11, in London 0.08, in the 76 great towns 0·12, and in the 142 lesser towns, 0·13. Three-fifths of the great towns had higher scarlet fever death-rates than Nottingham during 1904.

Diphtheria.—As far back as in 1902 I pointed out that diphtheria was on the increase in Nottingham. The number of undoubted diphtheria cases slowly and steadily increased, and with these (as frequently happens at the beginning of diphtheria epidemics) came a large number of cases of indeterminate sore throat—often attributed to bad drains and the like—but for some time the mortality remained low. Then

came sudden outbursts of severe and fatal cases, with variable remissions, the general prevalence increasing steadily the while.

As stated in my last report, this outbreak of diphtheria has been the means of increasing the number of complaints concerning drains and other sources of foul odours sent in to the Health Department to an almost unprecedented extent.

The corrected total of cases which came to my notice during the year was 548, as compared with 423 in 1903, 209 in 1902, 115 in 1901, 116 in 1900, and an annual average of 79 for the preceding 10 years.

The individual houses invaded during the year numbered 499.

The distribution of the disease in the City was remarkably general, and indeed uniform, except in the case of the S.W. District. (See map.) Here, as in 1903, the incidence and fatality were alike disproportionately heavy. Roughly speaking, the other Sub-Districts had attack-rates of just over 2 per 1000 of population, whereas the corresponding rate in S.W. was well over 3 per 1,000. The excess of mortality from diphtheria in S.W., as compared with the other Divisions, was even more pronounced, 27 out of a total of 69 deaths, or 40 per cent., occurring in this district, the inhabitants of which amount to only about 15 per cent. of the entire population. This district stretches from the Ilkeston Road to the Trent, and from St. Peter's Church, Queen's Walk, and Mundella Schools, to the Wollaton Park and Beeston boundaries of the City, and includes the entire Park estate, which escaped very lightly.

The seasonal incidence of the disease (four weekly and quarterly) is shown in the tables on pages 31 and 54. It will be seen from these tables that there was a

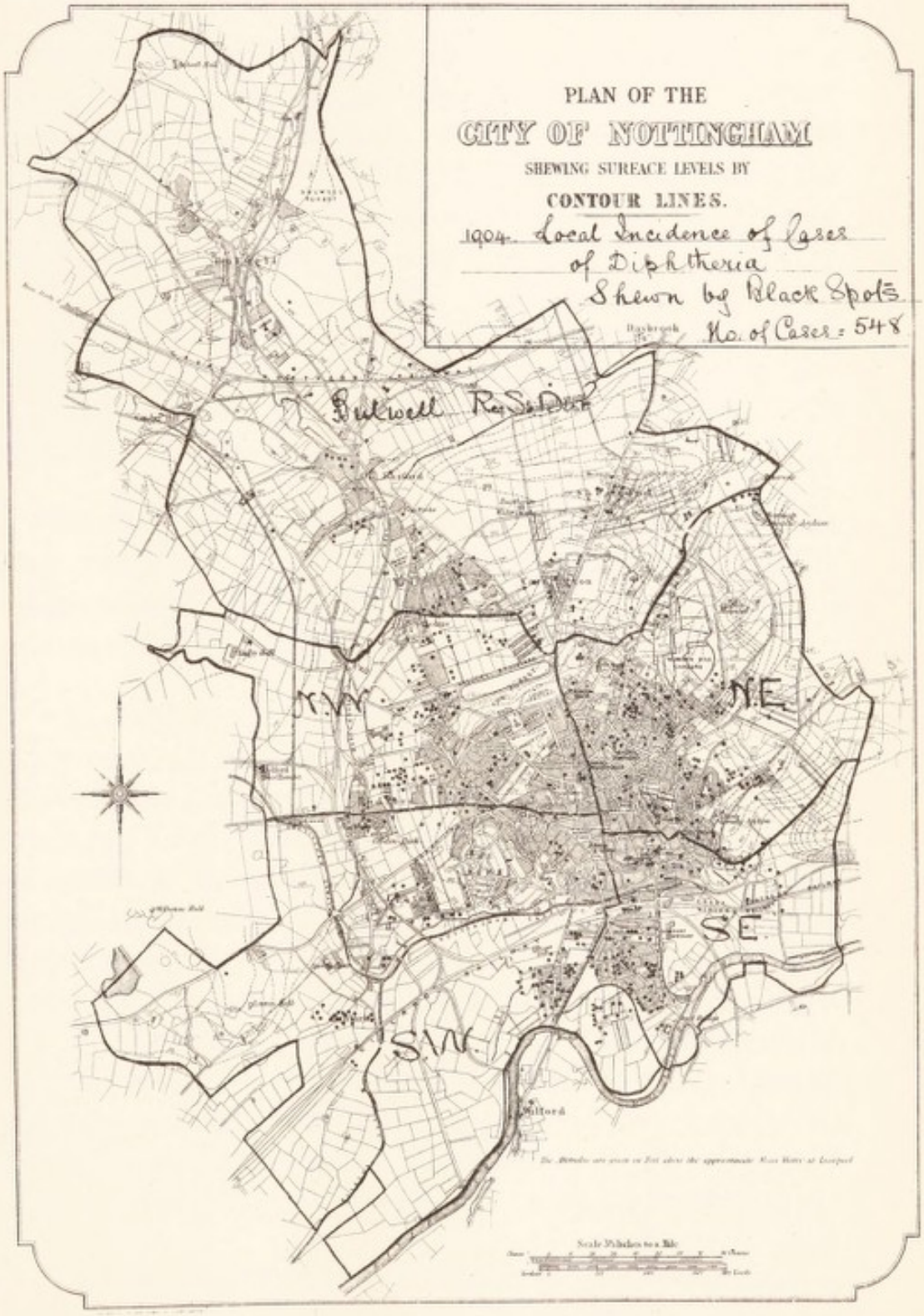
sudden increase in the number of cases during the last two months of the year, and that the increase was considerable in all the Sub-Districts except N.W. In Bulwell, N.E. and S.E., the advance for this period, as compared with the preceding two months, was in each case equal to more than 100 per cent.

Notifications of Diphtheria, during each of the Four Quarters of 1904, in the Registration Sub-Districts of the City.

Districts.	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Totals.
Bulwell	28	9	14	35	86
N.W.	28	31	31	34	124
N.E.	33	36	18	46	133
S.W.	25	30	31	41	127
S.E.	14	10	16	38	78
Totals	128	116	110	194	548

The cases and deaths were distributed as follows over the usual age-periods :—0-1 year, 9 cases and 8 deaths ; 1-5 years, 147 cases and 23 deaths ; 5-15 years, 299 cases and 35 deaths ; 15-25 years, 56 cases and 1 death ; 25-35 years, 23 cases and 2 deaths ; 35-45 years, 10 non-fatal cases; 45-55 years, 3 non-fatal cases ; 55-65 years, 1 non-fatal case. Thirty-three of the 35 deaths between 5 and 15 years were before the 10th year.

The same remarkable feature that characterized the local mortality figures of diphtheria during 1903 was reproduced in 1904. That is, ninety-three per cent. of the deaths occurred below the 10th year. The highest mortality is commonly observed in the 4th year of life, and there is nothing remarkable in the fact that 45 per cent of the deaths were before the end of the 5th year, but it is very unusual to have to record 48 per cent. of the total deaths as occurring between the 5th and 10th years, and 93 per cent. under the latter year.


PLAN OF THE
CITY OF NOTTINGHAM
SHEWING SURFACE LEVELS BY
CONTOUR LINES.
1904. Local Incidence of Cases of Diphtheria Shewn by Black Spots
No. of Cases = 548
Bulwell Res.
N.W.
N.E.
S.E.
S.W.
Wilford

The case-mortality except in the 1st year of life (where it was equal to 89 per cent) was not as high as usual.

There were 71 deaths altogether in Nottingham during 1904 certified as due to diphtheria. This number corresponds with a rate of 0·28 per 1,000 (28 per 100,000). The rate for 1903 was 0·24; the rates for the 3 preceding years were identical at 0·12; and that for 1899 was 0·08 per 1,000.

The death-rate from diphtheria in England and Wales during 1904 was 0·17, in London 0·16, in the 76 Great Towns 0·19, and in the 142 lesser towns 0·16 per 1,000 of population.

The highest death-rate from diphtheria among the great towns was that of Hanley at 0·77 per 1,000. During 1903 and 1902 the corresponding rates in this town were 1·22 and 1·28 respectively.

One hundred and thirty-two, or rather more than 24 per cent of all the cases occurring in the City were removed to Bagthorpe Hospital. These, with 5 remaining over from 1903, make a total of 137 under treatment in hospital during the year. The deaths in hospital numbered 19. The hospital case-mortality was therefore equal to 14 per cent. The case-mortality among the 416 home cases was slightly less than 13 per cent. As, however, the majority of the cases sent to hospital were so sent on account of their special severity—tracheotomy had to be performed in 4 instances almost immediately after admission—it is obviously unfair to compare the two sets of cases on level terms.

Anti-diphtheritic serum, which is now recognized as a specific so far as the acute stage of the disease is concerned if administered sufficiently early in this stage, is still furnished gratuitously to medical men in

attendance upon poor patients requiring it. Forty-seven applications for the grant of serum under these circumstances have been made at the Health Department during the year.

No less than 247 "specimens" from patients reputed to be suffering from diphtheria have been examined by Dr. Jacob, at the City Bacteriological Laboratory during the year.

Whooping-Cough.—This disease was again present in epidemic form during the past year.

Deaths from Whooping-Cough, during each of the Four Quarters of 1904, in the Registration Sub-Districts of the City.

District.	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Totals.
Bulwell	7	2	..	3	12
N.W...	11	9	2	3	25
N.E.	1	5	15	8	29
S.W.	10	..	1	..	11
S.E.	3	7	1	3	14
Totals	32	23	19	17	91

The distribution of the fatal cases over the 5 registration sub-districts of the City during the 4 quarters of the year is given in the accompanying table. It will be seen that the N.E. district which escaped most lightly during 1903 suffered most severely during 1904.

The deaths attributed to whooping-cough as a primary cause in Nottingham during 1904 numbered 91, as compared with 92 the year before. The death-rate per 1,000 was equal to 0·36 (36 per 100,000) in 1904, and the average annual rate from

this cause in Nottingham during the 10 years 1894 to 1903 was equal to 0·34. The corresponding rate in England and Wales during 1904 amounted to 0·34, in London to 0·33, and in the 76 Great Towns to 0.40 per 1,000 living, the individual rates in two instances (Warrington & Swansea) rising to above 1 per 1,000.

Enteric Fever.—For many years past I have made a practice of devoting a considerable section of my Report to the subject of enteric fever, and for the following reasons:—

(a) because the local incidence of the disease in Nottingham is disproportionately heavy;

(b) because this excessive incidence is in my opinion due in great measure to readily removable causes; and

(c) because under these circumstances it is in my opinion the duty of the Local Authority to do its best to remove these causes.

The excessive incidence in Nottingham is easily demonstrated. Taking the figures for the past 15 years (1890-1904), the annual number of cases has only once during this period fallen below 200, and that was in 1892, when it fell to 198; and on three occasions it has risen above 500, reaching 607 in 1899. Expressed as an attack-rate, these numbers represent an annual average of 171 persons attacked per 100,000 of population. The annual death-rate per 100,000 of population during the same period has only once fallen to 14 (1903), and has risen as high as 48 (1899), and has averaged 27, whereas the mean rate in the other great towns taken together has been equal to only 18 per 100,000 during this period. In only one year of the series has the death-rate in Nottingham been as low as the aggregate rate in the great towns, and that was in 1892, when the two rates were identical at 15 per 100,000.

It has been my opinion for many years that the cause of the special incidence lay in the system of excrement disposal existent in the town, namely the pail system, which was officially introduced to succeed the ancient midden-privy system in 1868. Until quite recently there have been more than 40,000 pail-closets—mostly furnished with wooden pails—in use in Nottingham. It is difficult for anyone not accustomed to making close inspection of very poor neighbourhoods furnished with these " dry " closets, to imagine even a small part of the nuisance, both offensive and injurious, which is incidental to their use in the slums. Foul soakage into the soil from spillage in scavenging, and from leaks in the pails, noxious gaseous exhalations into the atmosphere, fæcal contamination of food and drink in hot weather by means of flies and dust :—these —and a gruesome picture they make—constitute a truthful summary of the nuisance as it affects the dwelling and its immediate environment. It must not be forgotten, however, that the pail-contents after collection have to be disposed of ; and, indeed, no one who has anything to do with their disposal is likely to forget it. Undoubtedly these contents, containing as they do a wealth of fixed nitrogen, should go back to the soil from which they came, as food for plant life, but the difficulty and expense involved in securing this return are great, and continually growing greater. In the first place, the fæcal matter is mixed, in most cases at any rate, with much other detritus of civilized life, such as broken glass and crockery, empty tins and other metallic refuse, rags and paper, which are not only useless as manure, but also very much in the way in soil devoted to tillage. Such admixture necessarily diminishes the demand for the pail-contents as manure, and, as the demand diminishes, even those agriculturalists who are still willing to take them avail themselves of our difficulty to make a better bargain, and thus at times the disposal of this material is a matter giving rise to

anxiety and attended with financial loss. It must be remembered that the only practicable alternatives to immediate disposal of the fæcal material as manure are its storage in heaps or destruction by fire, for in the case of inland towns like Nottingham there is no open sea into which it can be thrown.

When dumped in the vicinity of inhabited districts, I have shown that it is liable to be surrounded by a zonal area of enteric fever incidence, to which the causal relation of the deposit is scarcely open to question.

When stored in rural districts it almost invariably gives rise to strong complaints—if nothing more—on account of the pollution of air, soil, and water which it necessarily produces both in transit and when deposited. The longer it is stored, moreover, the more difficult it is to get rid of, for, as this production of nuisance implies, it necessarily deteriorates by keeping.

The destruction by fire is the alternative to which most large inland centres of population which have to deal with this material in any considerable quantity are ultimately driven—for lack of a better way; and I imagine that the excellent new refuse destructors with which the town is now provided, and of which it will soon possess several more, will ultimately be freely utilized for the purpose.

To continue the line of my opening argument, —and to recapitulate—I have frequently and for many years drawn attention to the undoubted fact that "the bulk of enteric fever in Nottingham is essentially endemic in character, and confined almost exclusively to its poorer neighbourhoods, and that the principal factor in its propagation in such neighbourhoods is the direct excremental pollution of air, soil, dwellings and other surroundings

of human life by the agency of the ubiquitous pail-closet, and the nuisances almost inevitably associated with its use in the slums" of a large city. Flies and dust in hot and dry weather, I have said above, are the principal means by which excremental pollution is conveyed to food and dwellings and persons, but direct contamination of body and clothing from the closet is also of frequent occurrence among the very poor.

Apart altogether from the physical damage, the morally debasing influence of such an obsession of constant environment as this must be powerful for harm.

During the time that wooden pails were in general use for these closets, I have on more than one occasion clearly traced the outcrop of the fever in a fresh district to the introduction of pails previously used for typhoid-infected houses. It may be urged that the pails should be thoroughly cleansed and disinfected after such use, but in the case of the wooden pails at any rate, effectual cleansing and disinfection are impossible, without destruction. It has been our practice for many years to send out special covered pails for use at houses where cases are to be nursed at home, but, as an enteric fever case is often not recognized and notified as such until it has been in progress for several days, or even weeks, much mischief may have been done by means of the ordinary closet pail before the special receptacle comes into use. The strongest evidence, however, against the pail-closets, as agents for the propagation of enteric fever, is that afforded by the table shewing the proportional extent to which houses furnished respectively with pail-closets, midden-privies, and w.c.'s suffered from the incidence of the disease. I have kept and published from time to time a record of this from the date of my appointment down to the present.

From 1887 to 1898 the average incidence was as follows :—

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

The range in the case of the houses with pail-closets was from 1 in 97 in 1887, to 1 in 218 in 1892; in the houses with midden-privies it was from 1 in 18 in 1896, to 1 in 59 in 1892; in the houses with w.c.'s it was from 1 in 280 in 1893, to 1 in 795 in 1892.

The variations in degree of incidence though not entirely synchronous in each class have been very nearly so.

For example, the lowest proportional number of cases occurred in the same year (1892) in each class.

The ratio of incidence from 1899 to 1904 inclusive has been as follows :—

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	,,

These figures, as they stand, require no special interpretation. The only question is, how far are they affected by class of people and character of neighbourhood ?

As they stand these tables shew that the liability of midden-privy houses to be invaded by enteric fever is many times greater than pail-closet houses, and that of pail-closet houses many times greater than w.c. houses.

The correction required for class of people and neighbourhood is not so extreme as might at first sight be inferred, especially in the light of what I have said of the state of these closets in the slums, and have to say later on of the usual incidence of enteric fever upon various parts of the City, because we know that the disease can spread in the cleanest premises and districts, if the specific organisms are carried there and find their way into susceptible media and hosts, as indeed it does occasionally spread with us, and is at all times more or less liable to spread so long as endemic centres exist from which it is practically never altogether absent, and special facilities exist for its transportation.

These closets may perhaps be kept decent, and rendered comparatively harmless in good neighbourhoods (especially when such neighbourhoods stand by themselves), but they cannot in the slums, and when misused and filthy they give rise to and foster the spread of endemic sickness, as I have endeavoured to shew. The pail-closets of Nottingham are now furnished with steel pails, and are, for the most part, well looked after and scavenged, but nothing can render them acceptable as a permanent system of excrement disposal. The pail-closet, so far as cities are concerned, is a filthy survival, and as such is now very generally recognized, even by the poor. Many owners of poor house property, taking this view, voluntarily substitute w.c.'s, and, whenever a pail-closet becomes so seriously dilapidated as to require reconstruction, you insist upon the provision of a w.c., but, if we are to wait for any considerable amount of conversion from the operation of such causes of change as these, we shall have to wait a long time. In my opinion the systematic substitution of w.c.'s and fresh-water-latrines for the existing pail-closets should be commenced without delay. This alteration is called for in the interests of the public health, and the sooner it is seriously undertaken the better for all concerned.

The corrected total of enteric fever cases which came to my knowledge during 1904 was 296. In only three other years since the commencement of compulsory notification for enteric fever (in 1883) has the annual total of cases from the disease fallen below this figure. These years were 1903, 1892, and 1884, when they numbered respectively, 200, 198*, and 218.

Expressed as an attack-rate the number of cases for 1904 would be equal to a rate of 119 per 100,000 of population. The mean annual attack-rate for the

* This total should probably read, 205.

previous 15 years was 175 per 100,000. The number of separate houses in which cases occurred was 266. The deaths attributed to enteric fever amounted to 57 according to my returns, and 58 according to those of the Registrar-General. These deaths correspond with a rate per 1,000 of 0·23 (23 per 100,000). This rate, though relatively low for Nottingham, is higher than 5 of the annual rates recorded during the previous 15 years. The mean annual rate for this last period was 0·27 per 1,000.

The usual spot map which accompanies this section gives the exact distribution of the cases over the City. The distribution over the entire city area from North to South, and from East to West, is much the same as in former years, except that the cases shew somewhat less tendency to concentration. The better class neighbourhoods, such as the Park, the central parts of the City, the Forest Road and Arboretum districts, Sherwood Rise, the Mapperley and Woodboro' Road districts and Carrington and Sherwood, as usual, either escape altogether or suffer only in a very slight degree.

Nottingham, 1904. Enteric Fever. Cases and Deaths in Weekly Periods.

Week ending	January. 9	16	23	30	February. 6	13	20	27	March. 5	12	19	26	April. 2	9	16	23	30	May. 7	14	21	28	June. 4	11	18	25	
Cases	5	11	2	2	8	6	7	7	5	4	9	3	4	4	12	11	10	3	4	1	1	..	6	..	3	=128*
Deaths	5	..	2	3	..	2	2	2	..	4	..	2	1	3	..	1	1	1	..	1	..	..	..	..	2	= 32*

Week ending	July. 2	9	16	23	30	August. 6	13	20	27	September. 3	10	17	24	October. 1	8	15	22	29	November. 5	12	19	26	December. 3	10	17	24	31	
Cases	2	1	5	4	7	6	6	21	10	15	13	6	10	9	6	7	4	4	6	5	8	2	4	3	2	1	..	=167*
Deaths	..	..	..	..	2	..	1	1	..	3	3	..	3	3	..	2	..	1	2	3	..	1	..	..	..	..	..	= 25*

* Figures made up from weekly returns, without correction.

The seasonal distribution was unusual. One-fourth of the cases, and two-fifths of the deaths occurred in the first quarter. The case mortality in this quarter

was therefore specially high. The significance of this mortality, however, is slightly discounted by the fact that five of the deaths were those of patients who sickened in the previous year. Another infrequent feature was that the maximum prevalence occurred during August, instead of October as usual in this region. The following table shews the weekly incidence of cases and deaths throughout the year.

I now give tables of cases and deaths among males and females respectively, in age-periods, for the past three years.

NOTTINGHAM.

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

1902.

		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 ..	..	14	47	42	43	23	14	7	2	..	192	375*
	Female ..	1	5	53	45	42	18	9	8	2	..	183	
Deaths	Male ..	..	1	4	2	6	4	1	..	1	..	19	50*
	Female ..	..	1	6	6	11	2	3	2	..	..	31	
Average Cases to One Death.												All Ages.	
Male ..	..	..	14·0	11·7	21·0	7·2	5·7	14·0	..	2·0	..	10·1	7·5
Female	..	..	5·0	8·8	7·5	3·8	9·0	3·0	4·0	..	..	5·9	

1903.

		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	25	35	24	10	3	3	..	..	107	200*
	Female ..	..	3	32	27	20	8	2	..	1	..	93	
Deaths	Male ..	..	1	7	3	6	3	2	1	..	..	23	36*
	Female ..	..	..	3	4	3	2	..	..	1	..	13	
Average Cases to One Death.												All Ages.	
Male ..	..	..	7·0	3·6	11·7	4·0	3·3	1·0	3·0	..	..	4·6	5·5
Female	..	..	..	10·7	6·8	6·6	4·0	..	..	..	7	7·1	

* These totals include a few unverified cases.

1904.

		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 ..	1	16	40	35	35	19	9	3	3	1	162	296
	Female ..	..	11	36	39	24	11	12	1	..	..	134	
Deaths	Male ..	1	1	3	8	12	7	3	3	2	..	40	57
	Female ..	..	2	3	8	..	1	3	..	..	..	17	
Average Cases to One Death.												All Ages.	
Male		1·0	16·0	13.3	4·4	2·9	2·7	3·0	1·0	1·5	..	4·0	5·2
Female ..		..	5·5	12·0	4·9	..	11·0	4·0	..	..	..	7·9	

The principal points of interest to be noted in these tables are, the oscillation in case fatality between the two sexes from 1902 to 1904, and the rise in the general case-mortality rate during the same period. The average male rate in England and Wales as a whole is one death in 5·85 cases, and the average female rate is one in 5·32.

Only 15 enteric fever patients (8 males and 7 females) were accommodated at Bagthorpe Hospital during the year, but the General Hospital took in a large number of others who could not fitly be nursed at home. There were three deaths among those taken to Bagthorpe, making a case death-rate of 20 per cent.—28 per cent. for males, and 12 per cent. for females.

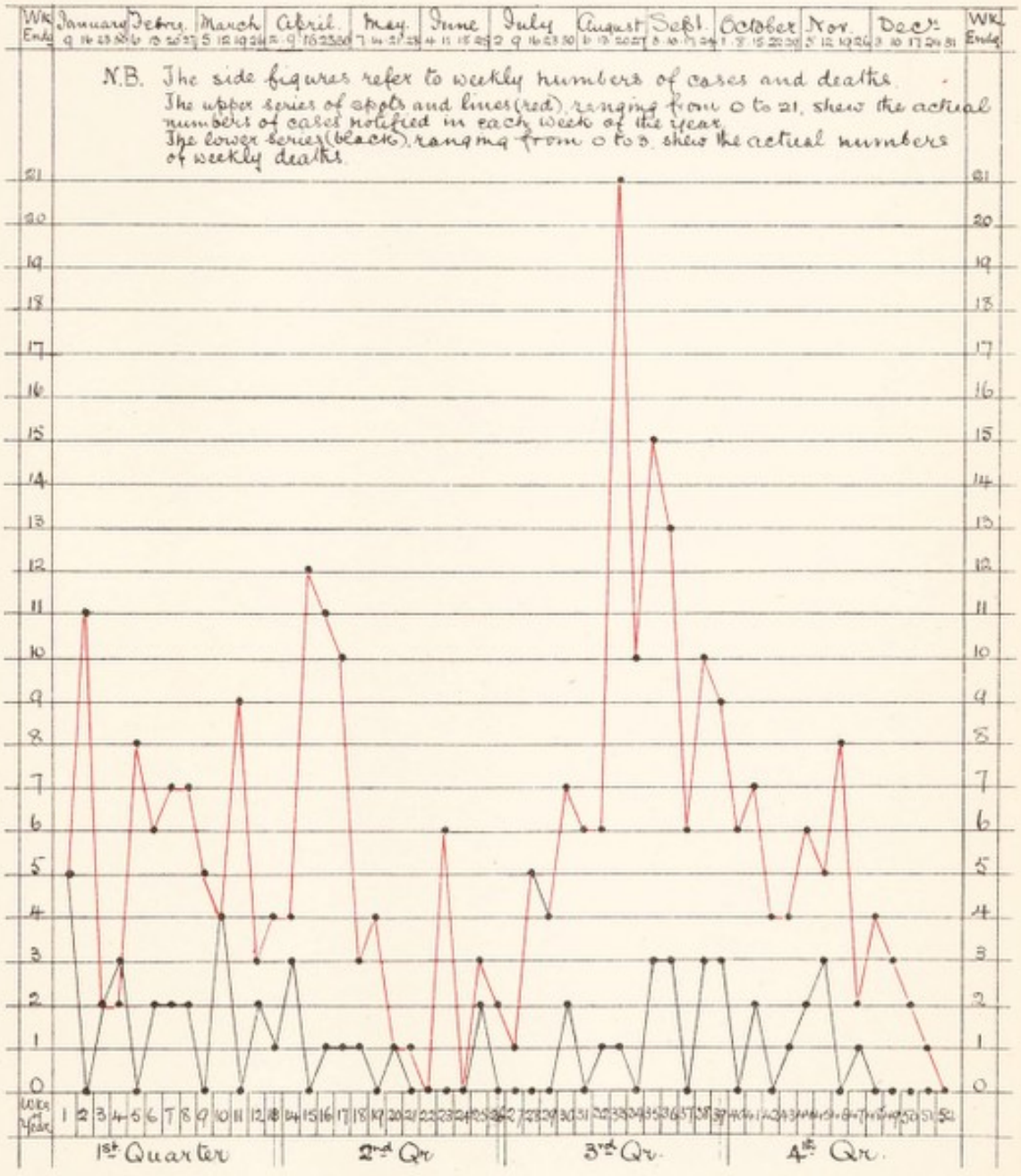
The death-rate per 1,000 living from enteric fever during 1904 was 0·09 in England & Wales, 0·07 in London, 0·10 in the 76 Great Towns, and 0·10 in the 142 lesser towns.

Eight of the Great Towns, in addition to Nottingham, had enteric fever death-rates exceeding 0·20 per 1,000 (20 per 100,000) during 1904, and one (Rhondda) had a rate of 0·35 per 1,000 (35 per 100,000).

Nottingham 1904.

Enteric Fever.

Weekly Numbers of Cases and Deaths.




PLAN OF THE
CITY OF NOTTINGHAM
SHEWING SURFACE LEVELS BY
CONTOUR LINES.
Local Incidence of Cases
of Enteric Fever
Shewn by Black Spots
No. of Cases: 296
Bulwell
Reg. Sub Dist
NW
NE
SE
SW

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	8	9	5	4	23	14	7	10	43	37	80	Cases	Bulwell
	Deaths	4	1	...	1	3	2	3	...	10	4	14	Deaths	
N.W.	Cases	9	2	5	7	14	6	6	3	34	18	52	Cases	N.W.
	Deaths	3	...	3	1	3	...	...	1	9	2	11	Deaths	
N.E. ...	Cases	10	8	15	13	10	18	12	2	47	41	88	Cases	N.E.
	Deaths	6	3	2	1	3	1	2	...	13	5	18	Deaths	
S.W. ...	Cases	8	10	1	5	5	4	3	7	17	26	43	Cases	S.W.
	Deaths	3	...	...	1	1	...	...	1	4	2	6	Deaths	
S.E. ...	Cases	9	5	3	...	6	5	3	3	21	13	34	Cases	S.E.
	Deaths	2	2	...	...	1	2	1	...	4	4	8	Deaths	

NOTTINGHAM, 1899-1904. ENTERIC FEVER. Onsets of Cases, with Mean Temperature of Air, and Rainfall, in Four-Weekly Periods.

	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.
1899	Mean Temperature	40·6	40·1	40·0	44·8	48·0	58·1	60·9	62·8	60 0	54·8	47·4	46·5	35·6	..
	Rainfall in Inches	2·61	1·52	0·30	1·96	2·12	1·21	2·90	0·70	0·81	3·50	2·30	0·8	2·2	22·93
	Cases of Enteric Fever	23	44	26	10	16	14	16	29	76	89	132	104	46	626
	Four-weekly periods ending	Jan. 27.	Feb. 24.	March 24.	April 21.	May 19.	June 16.	July 14.	Aug. 11.	Sept. 8.	Oct. 6.	Nov. 3.	Dec. 1.	Dec. 29.	Totals.
1900	Mean Temperature	39·0	34·175	38·325	41·725	46·075	53·825	57·55	60·75	55·35	53·00	48·225	42·775	43·725	47·269
	Rainfall in Inches	3·386	2·732	1·288	1·068	1·452	3·353	1·201	4·300	1·049	1·710	1·255	2·024	2·005	26·823
	Cases of Enteric Fever	21	30	15	21	17	28	12	36	61	70	83	69	38	501
	Four-weekly periods ending	Jan. 26.	Feb. 23.	March 23.	April 20.	May 18.	June 15.	July 13.	Aug. 10.	Sept. 7.	Oct. 5.	Nov. 2.	Nov. 30.	Dec. 28.	Totals.
1901	Mean Temperature	37·025	33·875	39·4	40·425	49·05	54·5	58·6	62·5	57·225	52·7	45·975	38·425	35·25	46·534
	Rainfall in Inches	2·418	1·162	1·621	1·995	0·483	0·825	1·760	2·280	1·173	1·205	1·439	1·669	3·371	21·401
	Cases of Enteric Fever	42	32	35	46	23	18	13	32	81	74	53	35	36	520
	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.	Dec. 27.	Totals.
1902	Mean Temperature	41·400	30·950	43·025	41·025	44·475	50.325	58·725	55 100	56·700	52·375	48·150	43·475	41 050	46·67
	Rainfall in Inches	2·157	1·008	1·856	1·698	1·255	2,246	0·751	2·679	2·570	1·419	2·016	0 931	1 508	21·524
	Cases of Enteric Fever	44	10	9	24	14	15	31	21	30	38	46	58	29	369
	Four-weekly periods ending	Jan. 24.	Feb. 21.	March 21.	April 18.	May 16.	June 13.	July 11.	Aug. 8.	Sept. 5.	Oct. 3.	Oct. 31.	Nov. 28.	Dec. 26.	Totals.
1903	Mean Temperature	36 9	44·6	41·7	43·6	45·3	52·9	56·8	57·1	55 8	54·0	49 3	42·9	38·5	47·6
	Rainfall in Inches	1·862	0·353	2·746	1·513	4·407	0·929	1·354	2·107	5·141	2·868	6·205	1·882	0·882	32·249
	Cases of Enteric Fever	16	14	17	6	8	6	9	17	20	15	31	21	21	200
	Four-weekly periods ending	Jan. 30.	Feb. 27.	March 26.	April 23.	May 21.	June 18.	July 16.	Aug. 13.	Sept. 10.	Oct. 8.	Nov. 5.	Dec. 3.	Dec. 31.	Totals.
1904	Mean Temperature	38·8	38·4	39·2	46·8	50·1	55·9	61·2	63·1	58·1	52·6	48·9	39·1	37·2	48·4
	Rainfall in Inches	1·65	3·19	1·21	1·52	0·42	1·36	0·37	2·48	3·01	1·51	0·40	1·07	1·53	19·733
	Cases of Enteric Fever	20	28	21	31	18	7	11	23	59	31	21	19	6	295

Nottingham, 1890-1904.

GENERAL ENTERIC FEVER DATA.

Year.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.
Population ..	211,695	214,606	217,550	220,551	223,584	226,659	229,775	232,935	236,139	239,384	237,770	240,438	243,191	245,993	248,811
Cases of Enteric Fever	337	375	198	479	334	422	444	428	423*	607*	505*	535*	375*	200*	296
Attack or Case rate	1·59	1·74	0·91	2·17	1·49	1·86	1·93	1·83	1·79	2·53	2·12	2·22	1·54	0·812	1·19
Deaths from Enteric Fever ..	58	70	36	68	61	55	75	45	53	114	75	79	50	36	57
Death-rate from Enteric Fever..	0·27	0·33	0·15	0·31	0·28	0·24	0·34	0·21	0·22	0·48	0·33	0.329	0·21	0·14	0·23
Mean air temperature ..	47·3	50·4	45·5	49·0	47·9	47·0	48·2	48·1	49·2	48·3	47·269	46·534	46·67	47·7	48·4
Rainfall in inches	17·698	25·889	21·579	20·165	20·252	20·753	22·992	23·726	19·750	22·635	26·823	21·401	21·524	32·368	19·733
Death-rates from Enteric Fever in great towns..	0·19	0·20	0·15	0·24	0·19	0·20	0·19	0·18	0·20	0·22	0·20	0·17	0·15	0·12	0·10

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

Diarrhœa.—The number of deaths during 1904 computed by me to have been due to diarrhœa, as defined under the new official rules of classification, was 346. The corresponding total given by the Registrar-General is 341. The difference, therefore, is immaterial. My total for 1904 is rather more than double that for 1903 (166). Two hundred and ninety-one of the 346, or 84 per cent., were of children under one year, and 330, or more than 95 per cent., of children under five years. The preponderance of infantile mortality is greater than usual; its significance is self-evident. The deaths under one year were again fairly evenly divided between the sexes (154 M, and 137 F). The deaths in the fourth quarter of the first year of life were slightly in excess of those in previous quarters, but the quarterly division of the mortality was otherwise strikingly even. The excess in the fourth quarter is presumably explicable by the more careless and general hand-feeding which then obtains.

It is impracticable to obtain an exact return of the method of feeding in all the fatal cases, but in three groups of 20 fatal cases, each under the seventh month, it was recently found that only 5, or 8.3 per cent., were alleged to be entirely breast-fed, and it is probable that many of these received also other food than mother's milk. The rest were stated to be variously dieted—on bread and water, gravy, farinaceous and other like foods, condensed milk, and cow's milk. The artificial foods are not only liable, especially in warm weather, to act as vehicles of infection, but also, by causing intestinal irritation, and lowering the child's nutrition and resistance, to lay it open to attack from the fæcal or other microbe by which specific disease is set up.

Given a high temperature, and low rainfall, epidemic diarrhœa will occur in any crowded community, but the cleaner the people in their habits, and the better managed the town with regard to street cleansing

and general scavenging, the less will be the amount of diarrhœa. Epidemic diarrhœa indeed may be said to be a matter of meteorology and presence or absence of organic dust and flies. What I have said of our endemic enteric fever may be said with but slight variation of seasonal diarrhœa.

NOTTINGHAM, 1904.

Weekly Deaths from Diarrhœa in Registration Sub-Districts.

	Week ending																			
	July					August				Sept.				October					Nov.	
	2	9	16	23	30	6	13	20	27	3	10	17	24	1	8	15	22	29	5	
Bulwell	..	..	..	1	2	1	7	14	5	3	7	4	2	4	1	..	1	..	..	52
N.W.	..	1	2	2	8	8	21	12	4	4	5	..	..	..	..	..	2	..	..	69
N.E.	1	..	1	7	11	22	18	12	9	4	1	1	3	1	1	2	..	1	..	95
S.W.	1	..	..	..	2	7	8	7	3	2	2	1	4	2	..	..	..	..	1	40
S.E.	1	..	1	2	7	10	8	9	10	5	4	2	..	2	1	1	..	..	..	63
	3	1	4	12	30	48	62	54	31	18	19	8	9	9	3	3	3	1	1	319

Dr. Ballard's theory of the relation of deep earth temperature (4 feet) to diarrhœa has met with a good deal of criticism, and from high authorities, in recent years, but, while the application of the theory to the varying conditions of different subsoils and localities must necessarily call for slight modification of its original statement from time to time to meet these varying conditions, of the general truth of the theory there can, I think, be no possible doubt. Such at any rate is my conviction from accurate and detailed observations extending over many years in Nottingham, and a general survey so far as other places are concerned. In the case of Nottingham the temperature of the 4 feet thermometer at which a serious increase of diarrhœa is to be looked for, is not commonly 56°, as stated by Dr. Ballard, but about 58°. This is clearly attested by the accompanying tables, giving the weekly deaths from diarrhœa and earth temperatures during the diarrhœa seasons of the past six years in Nottingham. The incidence of epidemic diarrhœa, however, as I have already pointed out is also largely dependent upon the

rainfall. A heavy rainfall at the diarrhœa season not only washes but also cools the soil; a slight intermittent rainfall, on the other hand, associated with a high temperature, may serve to foster rather than inhibit the growth of bacterial life. The inhibiting influence of a heavy rainfall was well illustrated in the 1903 season, when no less than 16.78 inches of rain were recorded during the months of July, August, September, and October, an amount equal to the total rainfall of some dry years. During this period there were no less than 86 days on which rain fell, 17 in July, 18 in August, 21 in September, and 30 in October.

The total diarrhœa deaths in Nottingham during 1904, represent a rate per 1,000 of 1.37 (137 per 100,000). The corresponding rates in England and Wales were 0.86 (86 per 100,000), in London 1.04 (104 per 100,000), in the 76 great towns 1.20 (120 per 100,000), and in the 142 lesser towns 0.90 (90 per 100,000).

Leaflets on infant feeding and the prevention of diarrhœa, which are reproduced in the Appendix of this report (and which have been in use with us since 1892), are regularly distributed by the Lady Health Visitors and others in the poorer districts of the City.

1899.

	WEEK ENDING																	
	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
Earth Temperature 1 ft. below surface ..	59·8	64·7	66·1	62·7	65·7	63·0	63·8	65·4	62·8	62·1	59·0	54·8	51·2	49·2	47·0	45·3	47·0	48·2
Earth Temperature 4 ft. below surface ..	57·1	58·5	60·4	60·9	61·1	61·5	61·4	61·5	62·0	61·3	60·8	59·7	57·5	55·3	53·4	51·8	50·4	50·6
Deaths from Diarrhœa	6	18	29	33	55	55	54	61	46	37	40	25	19	11	5	3	4	3

1900.

	WEEK ENDING																	
	July 7	July 14	July 21	July 28	Aug. 4	Aug. 11	Aug. 18	Aug. 25	Sept. 1	Sept. 8	Sept. 15	Sept. 22	Sept. 29	Oct. 6	Oct. 13	Oct. 20	Oct. 27	Nov. 3	Nov. 10
Earth Temperature 1 ft. below surface ..	60·1	62·6	64·4	67·8	63·6	59·2	62·7	62·7	59·4	57·9	56·5	57·1	56·6	52·2	53·1	48·6	48·2	48·6	49·1
Earth Temperature 4 ft. be low surface ..	56·5	57·1	59·4	61·7	62·8	61·1	60·4	61·2	60·4	59·6	58·7	58·0	57·7	56·6	55·2	53·9	52·2	51·3	51·3
Deaths from Diarrhœa	..	7	7	19	32	27	22	30	33	31	16	20	17	9	10	5	8	5	2

1901.

	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
Earth Temperature 1 ft. below surface ..	61·0	64·1	66·6	64·9	64·5	63·3	62·4	62·3	59·9	57·4	57·6	56·4	57·3	56·4	51·0	50·5	46·0	46·4	42·9
Earth Temperature 4 ft. below surface ..	55·9	57·4	58·9	60·5	60·5	60·8	60·9	60·7	60·5	59·2	58·4	57·8	57·5	57·4	56·0	54·6	52·7	51·2	49·8
Deaths from Diarrhœa	5	4	15	34	40	46	36	41	28	22	8	7	8	5	2	5	3	1	3

1902.

	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
Earth Temperature 1 ft. below surface ..	62·3	61·7	62·0	58·4	58·2	57·7	57·5	58·3	58·3	58.7	57·0	53·5	54·0	52·0	49·7	50·0	48·0	48·9	47·9
Earth Temperature 4 ft. below surface ..	56·7	57·6	58·0	58·0	57·6	57·2	55·9	57·2	57·3	57·7	58·0	56·6	55·6	54·9	53·6	52·4	51·4	50·8	50·3
Deaths from Diarrhœa	2	2	2	3	6	1	3	4	5	12	15	26	12	15	14	7	7	4	2

1903.

	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
Earth Temperature 1 ft. below surface ..	62·8	62·1	60·9	60·5	59·8	59·3	59·6	57·4	56·2	57·6	55·0	51·4	56·6	56·8	53·8	50·4	49·6	48·4	45·[illegible]
Earth Temperature 4 ft. below surface ..	55·0	56·4	55·8	53·0	57·9	57·9	58·0	57·9	57·1	56·9	57·1	54·1	54·1	56·1	55·9	53.0	53·0	51·9	50·[illegible]
Deaths from Diarrhœa	2	5	2	3	6	8	5	18	14	13	16	11	7	7	10	4	6	4	2[illegible]

1904.

	WEEK ENDING																		
	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	Nov. 12
Rainfall ..	0·09	0·09	0·26	1·73	0·32	0·17	1·20	1·16	0·57	00·8	0·26	0·35	0·84	0·06	0·08	0·19	0·07	0·08	0·6[illegible]
Earth Temperature 1 ft. below surface ..	62·2	67·4	66·8	63·5	66·5	60·9	57·3	56·5	60·0	57·9	58·4	54·7	57·9	49·3	47·9	51·0	47·1	47·8	46·[illegible]
Earth Temperature 4 ft. below surface ..	55·6	57·4	58·7	59·5	60·1	60·7	59·4	58·4	58·2	58·2	57·4	56·9	55·9	54·5	53·1	52·4	51·9	51·0	50·[illegible]
Deaths from Diarrhœa	3	1	4	12	30	48	62	54	31	18	19	8	9	9	3	3	3	1	1[illegible]

SCHOOL CLOSURE ON ACCOUNT OF INFECTIOUS DISEASE.

During the past year certificates were issued by me in respect of the closure, for various periods, of the following Public Elementary Schools (or parts of such schools), principally on account of the prevalence of Measles and Whooping-Cough in their districts:—

A.—COUNCIL SCHOOLS.

Albert Street, Bulwell.		Forster Street	(Infants' Dept.)
Bath Street	(Infants' Dept.)	Lenton	do.
Blue Bell Hill	do.	London Road	do.
Carlton Road	do.	Quarry Road, Bulwell	do.
Collygate Road	—	Shelton Street	—
Colwick Street	—	Sherwood	—
Coventry Road, Bulwell	(Infants' Dept.)	Sneinton Boulevard	—
		Sycamore Road	(Infants' Dept.)

B.—TRUST SCHOOLS.

All Saints'	(Infants' Dept.)	St. Andrew's	(Infants' Dept.)
Bulwell	do.	St. Edward's R.C.	do.
Colville Street	—	St. Mark's	do.
New Basford	(Infants' Dept.)	St. Matthias'	do.

All Infants' Schools closed from March 20th to April 10th.

Tables giving the cases and deaths, in age-periods, of the notifiable infectious diseases, the ratio of deaths to cases, and the deaths from the non-notifiable infectious diseases, which have occurred in Nottingham during 1904 and other recent years. Further Notification Tables will be found under the special sections dealing separately with notifiable infectious diseases.

1899.

	0-1 yr.	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 yrs.	Total.
Scarlet Fever *Cases*..	29	742	1525	220	49	9	6	..	..	..	2580
Deaths..	2	29	16	4	1	..	1	..	..	..	53
Diphtheria *Cases*..	3	43	51	25	8	8	3	..	1	..	142
Deaths..	3	14	9	1	1	1	1	..	..	..	30
Enteric Fever *Cases*..	..	33	170	180	119	63	31	10	6	1	613
Deaths..	..	1	18	38	27	20	4	3	2	1	114

1900.

	0-1 yr.	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 yrs.	Total.
Scarlet Fever *Cases*..	15	393	779	165	34	6	..	2	..	..	1394
Deaths..	1	34	18	1	1	..	..	..	..	..	55
Diphtheria *Cases*..	1	26	45	25	10	6	1	2	..	..	116
Deaths..	1	16	8	..	..	..	1	2	..	..	28
Enteric Fever *Cases*..	1	33	138	150	110	53	16	10	1	..	512
Deaths..	..	8	9	20	16	12	6	4	..	..	75

1901.

	0-1 yr.	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 yrs.	Total.
Scarlet Fever *Cases*..	15	255	500	114	27	6	1	..	..	..	918
Deaths..	..	5	6	..	..	..	..	..	..	..	11
Diphtheria *Cases*..	1	42	38	24	6	3	1	..	..	..	115
Deaths..	..	15	13	..	1	..	..	..	..	..	29
Enteric Fever *Cases*..	7	43	169	141	96	47	25	2	5	..	535
Deaths..	2	3	15	21	16	9	12	1	4	..	83

1902.

	0-1 yr.	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 yrs.	Total.
Scarlet Fever *Cases*..	5	290	517	122	30	1	1	..	..	..	966
Deaths..	1	12	7	1	1	1	..	..	..	..	23
Diphtheria *Cases*..	4	52	99	28	16	7	3	..	..	..	209
Deaths..	4	19	7	1	..	..	..	..	..	..	31
Enteric Fever *Cases*..	1	19	100	87	85	41	23	15	4	..	375
Deaths..	..	2	10	8	17	6	4	2	1	..	50

1903.

		0-1 yr.	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 yrs.	Total.
Small-Pox	*Cases*..	1	6	19	24	55	27	14	3	3	..	152
	Deaths..	..	1	..	..	1	..	..	..	..	..	2
Scarlet Fever	*Cases*..	19	361	703	263	56	14	3	..	..	..	1419
	Deaths..	1	14	13	6	..	..	..	..	..	..	34
Diphtheria	*Cases*..	2	100	225	68	21	6	3	..	1	1	427
	Deaths..	1	24	34	1	..	..	..	..	..	..	60
Enteric Fever	*Cases*..	..	10	57	62	44	18	5	3	1	..	200
	Deaths..	..	1	10	7	9	5	2	1	1	..	36

1904.

		0-1 yr.	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 yrs.	Total.
Small-Pox	*Cases*..	12	11	57	69	81	45	21	11	1	..	308
	Deaths..	4	1	2	..	1	1	1	..	..	..	10
Scarlet Fever	*Cases*..	9	336	647	140	39	12	2	2	..	..	1187
	Deaths..	..	10	17	1	1	..	..	..	..	..	29
Diphtheria	*Cases*..	9	147	299	56	23	10	3	1	..	..	548
	Deaths..	8	23	35	1	2	..	..	..	..	..	69
Enteric Fever	*Cases*..	1	30	72	74	60	30	21	4	3	1	296
	Deaths..	1	3	6	16	12	8	6	3	2	..	57

Nottingham. Notification Data up to the end of 1904.

	Scarlet Fever *			Enteric Fever †			Small-Pox. *			Diphtheria. ‡			Deaths from Non-Notifiable Zymotic Diseases.			
	Deaths.	Known cases.	Ratio of known cases to Deaths.	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

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

GENERAL DISEASES, etc.

In table 3 (p.p. 8 to 12 ante) will be found, set out in age-periods, the numbers of deaths certified in the City during 1904, arranged as far as possible under the headings of the death-causes to which they were attributed.

The form and arrangement of table 3 has recently been somewhat altered from its original pattern to meet the requirements of modern medical knowledge, but the changes introduced are not such, so far at least as individual death-causes are concerned, as to interfere with a comparison between past and present. The following section is a brief review of salient points of interest in this table.

There were 13 deaths ascribed to **syphilis,** of which 11 were (of infants) under 1, and 12 under 5 years of age. All these deaths, of course, were due to the congenital form of the disease. I may once more point out that such a number necessarily represents but a small fraction of the total mortality directly and indirectly due to this cause.

There were no deaths returned as due to **gonorrhœa,** but this disease, usually contracted in youth, is frequently responsible for disease and death in both sexes, but especially among males in later years.

Erysipelas, Puerperal Septicæmia, and Septicæmia (including pyæmia) were given as the causes of 5, 8, and 13 deaths, respectively, as compared with 4, 13, and 25 in 1903.

Taken either separately or collectively these numbers are well below the average of other recent years. The disciplinary powers affecting the local practice of midwifery granted to local authorities under the recent Midwives Act, cannot fail to do good in tending to check the spread of such diseases as puerperal septicæmia through the agency of dirty, ignorant, and careless midwives.

The deaths certified as due to **Acute Rheumatism** and **Rheumatism of the Heart** numbered 15, a total slightly below the average of the past 5 years. Unfortunately, however, these 15 deaths do not represent the total mortality from acute rheumatism, as much of the mischief it occasions, especially to the heart, is insidious in its operation, and liable to act as a death-cause at a period long subsequent to the original acute rheumatic attack. Six of the 15 deaths were those of children between 5 and 10 years of age, and 6 again of adults between 25 and 45. The proportion which the number of youthful victims bears to the total is unusually large.

Phthisis & other Tuberculous Diseases.—I have dealt at considerable length in other recent reports with the subject of the mortality from tubercle in Nottingham, giving details of its incidence according to sex, age, and occupation. In this report, owing to the exceptionally large amount of other material to be dealt with, I shall give only an epitomé of the local statistics of tubercle, hoping to continue my more detailed analysis of its incidence as opportunity shall serve in the future.

In recent years the local death-rate from tubercle among males has been almost uniformly higher than among females, and this difference has been always most pronounced above the 40th year.

With regard to age-incidence—nearly 25 per cent. of the deaths have been below the 5th year, and nearly 70 per cent. between the 20th and 65th years, but the heaviest mortality in the last period has occurred between the 25th and 45th years.

Unoccupied males and females under 15 (mostly school children) have (each sex alike) had a mortality of about 1·50 per 1,000. Industrially occupied males under 15 have had no mortality from tuberculous disease, and industrially occupied females only a very small one.

Unoccupied males over 15 years have had a mortality of only about 1·40 per 1,000, but occupied males one of nearly twice this figure.

Unoccupied females over 15 years have had a mortality of about 1·50 per 1,000, and the occupied one of only something over half this amount.

The ratios of mortality in occupied and unoccupied males and females, respectively, over 15 years, are therefore almost the converse each of the other.

The aggregate of deaths attributed to tuberculous disease in Nottingham during 1904 amounted to 472. The totals during 1903 and 1902 were 414 and 410, respectively, and the annual average of the previous 10 years 436.

The range in the annual totals during this period, was between 401 (1899) and 481 (1900). The principal disturbing factor to the curve of annual mortality during the past 14 years has been epidemic influenza.

The regional distribution of the disease in the fatal cases occurring in 1904 was given as follows:—

Tuberculosis of brain, 57 deaths:—16 under one year, 28 between 1 and 5 years, 8 between 5 and 10

years, 3 between 10 and 15 years, 1 between 15 and 20 years, and 1 between 45 and 55 years.

Tuberculosis of lung (phthisis), 328 deaths:—2 under one year, 9 between 1 and 5 years, 7 between 5 and 10 years, 6 between 10 and 15 years, 22 between 15 and 20 years, 52 between 20 and 25 years, 79 between 25 and 35 years, 66 between 35 and 45 years, 44 between 45 and 55 years, 31 between 55 and 65 years, 8 between 65 and 75 years, and 2 between 75 and 85 years.

Tuberculosis of abdomen (bowels and other abdominal organs), 53 deaths:—19 under 1 year, 22 between 1 and 5 years, 3 between 5 and 10 years, 3 between 10 and 15 years, 2 between 20 and 25 years, 3 between 25 and 35 years, and one between 45 and 55 years.

General Tuberculosis, 27 deaths:—7 under 1 year, 4 between 1 and 5 years, 5 between 5 and 10 years, 3 between 10 and 15 years, 1 between 20 and 25 years, 2 between 25 and 35 years, 2 between 35 and 45 years, 1 between 45 and 55 years, and 2 between 55 and 65 years.

Tuberculosis otherwise described, 4 deaths:—1 each in the 10 to 15, 15 to 20, 20 to 25, and 45 to 55 years age-periods.

The 472 deaths from all tuberculous diseases, in Nottingham during 1904, were equal to a death-rate per 1,000 living of 1·90 (or 190 per 100,000), and those from phthisis or tuberculosis of the lungs (328) to one of 1·32 per 1,000 living (132 per 100,000).

I have long advocated the voluntary notification of phthisis, and am pleased to say it is now practised by most of the medical officers of hospitals and other public institutions in the City. I trust that its general adoption may not be far distant. I have also

recommended the use of the old disused small-pox hospital buildings upon the Bagthorpe enclosure for the accommodation of cases of phthisis for which hospital treatment is desired among that large section of the community intervening between the well-to-do and the pauper class. I am still of opinion that such a provision would be very acceptable to many deserving victims of the disease, and also that it would do much good. The new small-pox hospital on Bulwell Forest might also advantageously be utilized for the same purpose, during the long intervals between local small-pox outbreaks.*

Acute and Chronic Alcoholism were the reputed cause of 16 deaths during 1904. The totals for 1903 and 1902, respectively, were 25 and 34, and and the annual average of the preceding 5 years was 19. I may once more draw attention to the fact that deaths due to alcohol are very commonly otherwise described, especially among the well-to-do. The deaths attributed to **Cirrhosis of the Liver** numbered 35 in 1904, as compared with 37 in 1903, 53 in 1902, and an annual average of 34 for the preceding 5 years. Cirrhosis of the Liver in adults is commonly the result of alcoholic excesses, and in this instance all the deaths ascribed to it were in the same age-periods as those primarily attributed to alcohol.

Cancer, and other malignant new growths were certified as the cause of 212 deaths in this City during 1904. The corresponding totals for 1903 and 1902 were respectively 192 and 223, and the annual average of the previous five years was 202. The deaths of females from malignant tumours, and especially those of the truly cancerous type, were as usual nearly twice as numerous as those of males. I regret to say that we are still in the dark as to the cause of cancer.

* A leaflet dealing with the prevention of consumption, which has been issued from the Health Department since 1892, is reprinted in Appendix A of this Report (p. 136).

Diabetes Mellitus was credited with 33 deaths. The numbers for 1903 and 1902 were 27 and 21, respectively, and the annual average of the previous five years was 18. The number of deaths annually certified as due to diabetes is steadily increasing, but whether there is any real increase in the prevalence of the disease or not it is impossible at present to decide. Some eminent authorities are of opinion that there is an actual increase. This again is a disease respecting the causation of which several theories have been advanced but nothing definite is known.

Premature Birth was once again as in 1903 the reputed cause of 143 deaths. The range in the annual totals from this cause for many years past has been only between 133 and 161, and so wide a range even as this has been very exceptional, having occurred but once in 15 years.

Debility at Birth, and Lung Collapse were assigned in 137 cases, as compared with 127 and 111 in 1903 and 1902 respectively, and an annual average of 161 for the preceding five years. These causes of death are either becoming less common or other causes are being certified in their stead.

Congenital Defects were given in 15 cases, against 28 and 14 respectively in 1903 and 1902, and a previous five years average of 25.

Want of Breast-Milk, Atrophy, Debility, and Marasmus were the death-causes alleged in some 124 cases. This number is far below the average of other recent years, but owing to changes in disease nomenclature and classification it is difficult to make exact comparison with the past. It is hard to believe, however, that, with the hand-feeding of infants rather on the increase than otherwise, there should be a simultaneous decline in the number of deaths which are known to be largely dependent upon such feeding.

Rickets is eminently a disease of bad housing and feeding, and found in its most serious development in the slums of great cities—those of Glasgow, for instance, have long had the repute of producing a terrible type of this disease in large amount. The number of deaths so certified in Nottingham during 1904 was 18, as against 15 and 10 in 1903 and 1902 respectively, and an annual average of 25 for the preceding five years.

Old Age. Senile Decay.—The number of deaths found under this heading depends very largely upon the presence or absence of intercurrent maladies to which the deaths of old people may be assigned, as distinguished from simple old age. The numbers during 1904 and 1903 were 193 and 273 respectively, and the preceding five years average was 171.

Infantile Convulsions were given as the death cause in only 46 cases as compared with 83 in 1903. Owing to the fact that infantile convulsions are a symptom only, their use as a certified death-cause is (very properly) going out of fashion.

Simple Meningitis and Encephalitis were certified in only 34 instances, as compared with 52 in 1903 and 62 in 1902, and a preceding five years average of 66. Many deaths so stated are probably due to tuberculous disease.

Apoplexy, Softening of the Brain, &c., occurred in 200 instances, a number slightly below the average.

General Paralysis of the Insane and Other Forms of Insanity were found in 53 cases, as compared with 26 and 35 in 1903 and 1902 respectively, and an annual average of 36 for the preceding five years.

Epilepsy was the cause given in 19 cases, as compared with 22 and 26 in 1903 and 1902, and a previous five years average of 17.

Locomotor Ataxy, Paraplegia, and other like Diseases were given in 18 instances, as against 17 and 16 in 1903 and 1902, and a preceding five years average of 19.

Neuritis as a death-cause is slowly finding its way into general use. There were 13 deaths certified as due to peripheral neuritis during 1904.

Organic Heart Diseases were returned in 436 cases, as compared with 340 and 390 in 1903 and 1902, and a previous five years average of 374. There has been a steady increase in the number of deaths certified under this heading for some years past.

Bronchitis, Pneumonia, Pleurisy, etc. (Diseases of the Respiratory System) were credited with 732 deaths during 1904. The totals for 1903 and 1902 were 728 and 749 respectively, and the quinquennial average for the period ended with 1901 was 757. As I have often pointed out, there is seldom much variation in the annual numbers of deaths from these diseases, in the absence of some disturbing agent like epidemic influenza. But when the latter is seriously prevalent the deaths from these disorders undergo a striking increase. During the influenza years 1890 and 1891 they numbered 899 and 944, respectively, whereas on either side of the epidemic period in 1889 and 1893 they fell away to 741 and 729.

Diseases of Stomach and Gullet, (non-malignant). The deaths assigned to these numbered 38 only, as compared with 55, 40, and 50 in the 3 preceding years. The most important item under this heading is ulcer of the stomach and contiguous gullet and gut, which causes on an average 20 deaths a year.

Simple Enteritis was the reputed cause of 74 deaths, as compared with 41 and 39 respectively in 1903 and 1902. As nearly all these 74 deaths occurred during the diarrhœa season, the inference is obvious that they were mostly of diarrhœal origin.

Appendicitis was given as the death-cause in 16 cases, as against 17, 10, and 11 respectively in the three immediately preceding years.

Hernia & other (non-malignant) **Obstructive Diseases of the Bowels** (excluding Appendicitis) were certified in 26 cases, as against 33 and 29 in 1903 and 1902.

The separate figures of other past years are not available for either appendicitis or hernia.

Acute Nephritis and Bright's Disease were returned in 96 instances, as against 90 and 94 in 1903 and 1902, and a quinquennial average of 105.

Diseases of the Bladder and Prostate (non-malignant) were stated as the death-cause in 18 cases, a very average number as compared with past records.

Diseases of the Female Organs of Generation (non-malignant) were reputed fatal in 13 instances, as against 9 and 25 in 1903 and 1902 respectively, and a preceding five years average of 20.

Accidents of Child-birth were given in 17 cases, as compared with 19 and 20 in 1903 and 1902. The ratio of such maternal deaths to the total number of living births (6880) is equal to 1 in 405 for 1904, 1 in 366 for 1903, and 1 in 343 for 1902. If we add to

these " accidents " the deaths from puerperal septicæmia (8 in number for 1904), we obtain corresponding ratios of 1 in 275 for 1904, 1 in 217 for 1903, and 1 in 245 for 1902.

Accidents and Negligence were credited with 111 deaths. The numbers for 1903, 1902, and 1901 were respectively 93, 106, and 103, and the annual average for the preceding 5 years was 113. Of the 111 deaths from these causes during 1904, 3 occurred in mines, 8 in the streets from vehicular traffic, 9 on railways, 1 in building operations, 2 by machinery, 17 by burns and scalds, 5 by poison and poisonous vapour, 1 by chloroform (surgical narcosis), 1 by corrosive chemicals, 11 by drowning, 17 by overlying in bed (all under 1 year), 7 by other methods of suffocation (6 under 1 year), 26 by falls, 2 by accidents unexplained, and 1 by homicide.

Suicides during 1904 numbered 27, as compared with 31 in 1903. One was between 15 and 20, 3 between 20 and 25, 4 between 25 and 35, 2 between 35 and 45, 7 between 45 and 55, 6 between 55 and 65, 3 between 65 and 75, and 1 over 85 years.

Seven were by poison, 8 by strangulation, 6 by drowning, 4 by cut or stab, and 2 by precipitation from a height.

Uncertified Deaths. According to my returns these amounted to 27, but the Registrar-General makes them 34. The last number is equal to 0·8 per cent. of all deaths during the year.

The corresponding proportion in England and Wales as a whole during 1904 was 1·6 per cent., in London 0·2 per cent., and in the 76 Great Towns 1·1 per cent.

Coroner's Inquests. The number of inquests held in the City during the year by Mr. C. L. Rothera, B.A., the Coroner, or his deputy, was 278, equal to 6·3 per cent. of all deaths. The corresponding total number and percentage for 1903, were 258 and 6·2 per cent. The proportion of inquests to total deaths in England and Wales during 1904 was 6·5 per cent., in London 9·6 per cent., and in the 76 Great Towns 7·4 per cent.

Chart of Meteorology, Births, and Deaths in Nottingham during 1904. The usual chart of this description, prepared under the direction of the City Engineer (Mr. Arthur Brown) and myself, will be found at the end of this Report. Its scheme is identical with that of last year.

CITY ISOLATION HOSPITAL, AT BAGTHORPE (BASFORD) AND ON BULWELL COMMON.

The persons admitted to the City Hospitals at Bagthorpe and on Bulwell Common during 1904 for treatment or quarantine, or during the disinfection of their homes and effects, numbered 1099. The numbers admitted for like purpose during the four immediately preceding years were, respectively, 808, 618, 574, and 785. The total for 1904 was made up as follows:—scarlet fever, 460 cases (213 males and 247 females); enteric fever, 14 cases (7 of each sex); diphtheria, 132 cases (61 males and 71 females); small-pox, 308 cases (160 males and 148 females); other cases, of erroneous diagnosis, contacts, persons temporarily homeless during the disinfection of their dwellings, etc., 185 (88 males and 97 females).

The cases remaining in hospital at the close of 1903 were 108 in number:—80 of scarlet fever, 1 of enteric fever, 5 of diphtheria, 17 of small-pox, and 5 of other kinds. Those left at the end of 1904 numbered 93:—60 of scarlet fever, 1 of enteric fever, 21 of diphtheria, 8 of small-pox, and three of other kinds.

Ten patients sent in for scarlet fever, 1 for enteric fever, and 1 for diphtheria proved, after admission, to have been incorrectly certified, and are classed in the accompanying tables among "other cases" with small-pox contacts, suspects, &c.

Further details, as regards case-mortality in each sex and other matters, will be found in the first table of this section, on the next page.

Total Number of Cases in Hospital, 1904.

Disease.	Remaining at end of 1903.			Admitted during 1904.			Total cases during 1904.	Total deaths during 1904.	Case mortality % of total cases, 1904.	Days of average residence.		Remaining at end of 1904.
		Recovered.	Died.		Recovered.	Died.				Non-fatal	Fatal.	
Scarlet Fever M.	39	39	..	213	178	5	252	5				30
Scarlet Fever F.	41	41	..	247	213	4	288	4				30
Total..	80	80	..	460	391	9	540	9	1·66	50	23	60
Enteric Fever M.	..	..	..	7	5	2	7	2				..
Enteric Fever F.	1	1	..	7	5	1	8	1				1
Total..	1	1	..	14	10	3	15	3	20·0	39	29	1
Diphtheria .. M.	1	..	1	61	39	9	62	10				13
Diphtheria .. F.	4	4	..	71	54	9	75	9				8
Total..	5	4	1	132	93	18	137	19	14·0	38	13	21
Small-pox .. M.	12	12	..	167	159	5	179	5				3
Small-pox .. F.	5	5	..	154	143	6	159	6				5
Total..	17	17	..	321	302	11	338	11	3·2	23	7	8
Other Cases .. M.	2	2	..	81	81	..	83	..	..			..
Other Cases .. F.	3	3	..	91	87	1	94	1	..			3
Total..	5	5	..	172	168	1	177	1	0·56	11	5	3
Total	108	107	1	1099	964	42	1207	43	3·56	33	14	93

It may be noticed that the numbers of small-pox cases of either sex stated in this table to have been admitted during the year do not exactly correspond with those given elsewhere in this Report, and the explanation of the discrepancy is that all admitted cases, authoritatively stated or suspected to have been infected with small-pox, are included in the hospital table as small-pox cases, whereas in the small-pox section of this Report and elsewhere only those are classed as small-pox cases in which the attacks were definitely diagnosed by some person having a special knowledge of the disease.

The cases under treatment in the hospital during the year (1904) necessarily include those remaining at the close of the previous year. These, as already

stated, numbered 108, and, added to those admitted, bring up the total of hospital cases for the year to 1207. Not all these, however, can be finally dealt with here, as the issue of those remaining in hospital at the close of 1904 necessarily belongs to the ensuing year.

The first six months of the year was far busier than the last, the mean of the highest monthly number of beds occupied during this period being 130, whereas during the latter half year the mean was only 83. The range in the highest numbers of occupied beds was from 159 in February to 87 in August, and in the lowest from 121 in March to 82 in August. The figures are for both hospitals.

Table shewing the number of Beds occupied during each month of the year 1904.

Month.	Beds Occupied.		Month.	Beds Occupied	
	Highest.	Lowest.		Highest.	Lowest.
January	131	110	July	107	84
February	159	120	August	87	82
March	129	121	September ..	96	86
April	130	103	October	102	90
May	115	101	November ..	101	97
June	117	85	December	104	93

SCARLET FEVER

The cases and reputed cases of scarlet fever reported to me during 1904 numbered 1189, and, of these, 460, or 39 per cent., were removed to hospital.

The cases removed to hospital during each of the three immediately preceding years amounted to 34 per cent., 52 per cent., and 47 per cent. respectively.

The ten persons already mentioned, who were incorrectly certified as suffering from scarlet fever and sent to hospital on the strength of such certification, were happily restored to their homes without having contracted infection during their detention.

The cases admitted during 1904 numbered 460, and were made up of 213 male and 247 female cases. Those remaining at the close of 1903 were 80 in number, consisting of 39 male and 41 female cases; and again those left over at the end of 1904 were 60 in number, consisting of 30 of each sex.

The balance of the first and last added to the middle set gives a total of 480 cases finally dealt with during 1904. These were made up of 222 male and 258 female cases. Of the male five, or 2.25 per cent. and of the female four, or 1.55 per cent. ended fatally before the close of the year. The case mortality for both sexes taken together was equal to 1.90 per cent.—a low rate, but still 0.81 per cent. higher than that of 1903 (1.09).

The usual tables are here given, of age and sex incidence and mortality, of actual death causes in fatal cases, and of complications affecting scarlet fever patients. These tables speak for themselves, and contain nothing calling for special comment.

Age and Sex Distribution of Non-fatal and Fatal Cases of Undoubted Scarlet Fever under treatment in Hospital during 1904, exclusive of those remaining at the close of the year, but inclusive of those carried over from 1903.

AGE PERIODS.	MALES.		FEMALES.	
	Recoveries.	Deaths.	Recoveries.	Deaths.
Under 1 year	3	..	2	..
Between 1 and 2 years	5	..	3	..
" 2 and 3 "	11	..	19	1
" 3 and 4 "	15	..	22	1
" 4 and 5 "	23	1	24	..
" 5 and 10 "	98	3	100	1
" 10 and 15 "	27	1	37	..
" 15 and 20 "	14	..	25	..
" 20 and 25 "	10	..	16	..
" 25 and 30 "	6	..	2	..
" 30 and 35 "	1	..	1	1
" 35 and 40 "	..	..	2	..
Over 40 years	4	..	1	..
TOTALS	217	5	254	4

Actual Age at Death in Fatal Cases and Cause.

MALES.		FEMALES.	
4 years..	.. 1 Meningitis.	3 years..	.. 1 Syncope.
5 „ ..	.. 2 Malignant S. F.	4 „ ..	.. 1 Septic Adenitis.
6 „ ..	.. 1 Septic Ulcern. of Mouth.	6 „ ..	.. 1 Syncope.
11 „ ..	.. 1 Delirium.	33 „ ..	.. 1 Meningitis.

Complications among Scarlet Fever Cases during 1904.

Complications.	Cases affected.	Percentage of all Cases.
Albuminuria and Hæmaturia	48	9·0
Adenitis (severe)	17	3·0
Rhinorrhœa	51	9·4
Otorrhœa	71	13·0
Bronchitis	1	0·2
Endocarditis	1	0·2
Arthritis	15	2·8
Meningitis	3	0·5
Abscess—Cervical	2	0·4
„ Axillary	1	0·2
„ Crural	3	0·5
Exudative Tonsillitis	1	0·2
Septicæmia	4	0·7
Diphtheria	3	0·5
Secondary Rash	14	2·8

It must be borne in mind that the scarlet fever cases here dealt with constitute only some two-fifths of all those occurring in the City during the year.

Some particulars of hospital and home cases, considered both together and separately, will be found, as usual, under the heading of "Scarlet Fever" in the section of the Report devoted to epidemic diseases in general. I must point out, however, that, in comparing hospital and home mortalities in the latter place, I have made comparison between all reputed home cases and all verified cases under treatment in hospital, without deducting those remaining at the close of the year.

It is obviously impossible to make any accurate correction in the home cases to correspond with the number of hospital cases remaining at the close of the year, and I have included the hospital cases taken over from the previous year as a set off to the considerable number of spurious home cases in respect of which otherwise no correction is made.

The return cases (or cases occurring in houses in which hospital patients returned after their discharge, within three weeks of such discharge) amounted to 16.

This number is equal to 3.48 per cent. of all cases discharged during the year. The corresponding proportions for 1903 and 1902 were 2.18 and 3.68. The monthly distribution of return cases during 1904 was as follows:—January, three cases; March, two; May, one; June, one; September, four; November, two; December, three. None of these cases ended fatally.

ENTERIC FEVER.

The cases of enteric fever admitted to Bagthorpe Hospital during 1904, numbered only 14—7 of each sex. There was one case only in the hospital at the beginning, and one only also at the close of the year.

Age and Sex Distribution of Cases of Enteric Fever under treatment in Hospital during 1904, including those left over from 1903, but excluding those remaining at the end of 1904.

Ages.	Males.		Females.	
	Recovered.	Died.	Recovered.	Died.
Between 5 and 10 years	1	..	1	..
„ 10 „ 15 „	1	..	2	..
„ 15 „ 20 „	..	..	..	..
„ 20 „ 25 „	1	1	1	1
„ 25 „ 30 „	1	..	..	..
„ 30 „ 35 „	..	..	1	..
„ 35 „ 40 „	..	..	..	..
Over 40 years	1	1	1	..
Totals ..	5	2	6	1

Total Cases, 14.—Deaths, 3. *Case mortality*, 21·0%.
Male Cases, 7.—Deaths, 2. *Case mortality*, 28·6%.
Female Cases, 7.—Deaths, 1. *Case mortality*, 14·0%.

Cases remaining in Hospital at end of 1904—1 (Female).

The above 14 cases are made up as follows:—

1 remaining at end of 1903.
14 admitted during 1904.

15
1 remaining at end of 1904.

14

In the fatal cases death was due to:—

Intestinal Hæmorrhage, 2.
Toxæmia and Heart Disease, 1.

The recent decline in the number of admissions to Bagthorpe Hospital for enteric fever is partly due to the diminished prevalence of the disease, and partly to the regular provision of some twenty beds at the General Hospital, and a variable number at the Workhouse, for its cases. The highest number of enteric fever cases under treatment in Bagthorpe Hospital in any one year was 121 during 1899. As already noted in the enteric fever section of the general report, the period of maximum prevalence (for Nottingham) during 1904 occurred in August. Thirteen out of the total of fourteen cases admitted during the year were taken in during September, and one in November.

The case remaining in hospital at the close of 1903 ended in recovery. Of the seven male cases admitted during the year two ended fatally, one æt. 21, and one æt. 49. The cause of death in the first was intestinal hæmorrhage, and in the second, toxæmia and heart disease. This last complication was independent of the enteric fever. The rate of case mortality among males was equal to 28.6 per cent.

Of the 7 female cases admitted one ended fatally, æt. 23 years, and the cause of death was here also intestinal hæmorrhage. No general inferences are deducible from figures so small as these, but further details of the epidemiology of enteric fever in Nottingham will be found under the heading of enteric fever in that part of the Report devoted to epidemic diseases in general.

DIPHTHERIA

One hundred and thirty-two out of a total of 548 diphtheria cases discovered in the City during the year, or rather more than 24 per cent. of all, were removed to Bagthorpe Hospital. These were made up of 61 male and 71 female cases. One male and 4 female cases were left over from 1903 and 13 male and 8 female remained at the close of 1904. The number finally dealt with during the last year therefore was 116.

Age and Sex Distribution of Cases of Diphtheria under treatment during 1904, including those left over from 1903, but excluding those remaining at end of 1904.

Ages.	Males.		Females.		Monthly Admissions.
	Recovered.	Died.	Recovered.	Died.	
Under 1 year ..	..	1	..	..	Jan. 12
Between 1 and 2 years	1	1	..	..	Feb. 7
" 2 and 3 "	4	1	..	..	March 6
" 3 and 4 "	1	3	4	1	April 10
" 4 and 5 "	4	..	9	1	May 6
" 5 and 10 "	16	4	20	7	June 7
" 10 and 15 "	7	..	11	..	July 14
" 15 and 20 "	4	..	4	..	Aug. 12
Over 20 years ..	2	..	10	..	Sept. 9
					Oct. 16
					Nov. 16
					Dec. 17
Totals	39	10	58	9	132

Total Cases, 116.—Deaths, 19. *Case mortality*, 16·4%.
Male Cases, 50.—Deaths, 10. *Case mortality*, 20·0%.
Female Cases, 66.—Deaths, 9. *Case mortality*, 13·6%.

The 116 cases are made up of—

5	"	remaining at end of 1903.
132	"	admitted in 1904.
137		
21	"	left over at end of 1904.
116		

Of the cases of true Diphtheria admitted, 6 were complicated with Scarlet Fever.

Causes of Death.—Laryngeal Obstruction, 1; Broncho-pneumonia, 2; Syncope, 13; Paralysis, 2; Meningitis, 1.

ANTITOXIN, 1904.

132 cases admitted :—

93 recovered; of these 61 had 508,000 units of antitoxin, or an average of 8,300 per case.

18 died; of these 14 had 163,000 units, or an average of 11,600 per case.

21 carried over into 1904.

TRACHEOTOMIES.

F. 1 aged 4 Recovered.
1 " 3 Died.
M. 1 " 1 } Recovered.
1 " 4 }

The cases were again, as during 1903, very generally distributed, in point of time and place, in Nottingham during 1904. But there was a marked increase in their number in all but the N.W. District of the City during the last two months of the year.

An increase in the admission to hospital, however, was noticeable before this, as the table of monthly admissions (page 96) will show. The quarterly admissions were :—1st quarter, 25; 2nd, 23; 3rd, 35; 4th, 49. The highest monthly number of admissions was 17, in December, the lowest 6, each, in March and May.

As explained elsewhere, it is impossible to learn anything from the age and sex incidence in a number of cases accidentally selected like these, and constituting only about one-fourth of the total number which occurred in the period under notice.

But the other statistical facts are interesting.

The number of cases which were seen to a finish during 1904 was 116. The total deaths numbered 19. The total case-mortality was equal therefore to 16·4 per cent. The male cases were 50, and deaths 10; the male case-mortality therefore was equal to 20 per cent. The female cases were 66 and deaths 9; the female mortality was therefore equal to 13·6 per cent.

The case-mortality in diphtheria is so variable at all times—even in contemporaneous groups of cases in the same outbreak—that it is quite impossible to set up any normal standard by which to estimate its relative magnitude.

The mortality in hospital, however, being higher than that among the cases nursed at home (13 per cent.), it is pleasing to have an explanation of the fact which is at once obvious to anyone acquainted with this branch of hospital work, and satisfactory to all who are interested in the Institution. The explanation is, that the majority of the cases sent to hospital are specially severe, being sent in on that account. Cases have sometimes died on the way to the hospital, or before they could be put to bed after arrival, and during 1904 tracheotomy was required in four cases almost immediately after admission.

Bearing in mind the smallness of the numbers dealt with in the accompanying table, the following facts may be noted:—(*a*) the case-mortality, as last year, is higher among males than females, which is unusual at the age periods here affected; (*b*) the highest case-mortality (75 per cent.) is among males in the 4th year (the mortality in both sexes is usually highest in the 4th year); (*c*) the case-mortalities in the 5-10 age-period—20 per cent. for males and 26 per cent. for females—are higher than usual with us of late, and are specially noticeable in view of the fact that there were no deaths among the 38 cases above the 10th year; (*d*) fifteen out of the total 19 deaths were due to paralysis of the heart (13) or other organs (2)—such a proportion of deaths from this cause is very unusual.

In comparing hospital and home mortality in the diphtheria section of the General Report, I have compared all the cases under treatment in hospital with all home cases, for reasons already explained in the scarlet fever section of the hospital report.

All acute cases of true diphtheria not actually moribund were treated with antidiphtheritic serum on admission. This serum, as already stated, was also given out gratuitously on 47 occasions to medical men in attendance upon cases requiring it among the poor.

The City Bacteriologist, Dr. F. H. Jacob, reports that he has examined 247 specimens from cases, and reputed cases of diphtheria, during 1904. The utility of Dr. Jacob's work to the Health Department and the City at large has never been more amply demonstrated than during the past year.

SMALL-POX. The history of that part of the current small-pox outbreak which belongs to 1904, has been fully given under the heading of small-pox (p.p. 32 to 46) in

the general-epidemic-disease section of this Report. I have also already explained the cause of the slight discrepancy between the total numbers of cases given in the hospital and other tables, and need only point out further that, as all discovered small-pox cases considered to be in an infectious condition are at once removed to hospital, there are no home cases to be dealt with. The total number of fresh cases in which the diagnosis was definitely determined at a sufficiently early date to render their isolation or disinfection desirable was 308. Seventeen cases were left in hospital at the close of 1903, and 8 at the close of 1904.

OTHER CASES.

The following table of admissions to the hospital made up (*a*) of cases of erroneous diagnosis, (*b*) of accidental illness among members of the hospital staff, (*c*) of small-pox contacts, and (*d*) of persons temporarily deprived of their homes during disinfection of houses and effects, speaks sufficiently for itself.

Table showing monthly admissions of Cases of Scarlet Fever, Enteric Fever, Diphtheria and Small-Pox, and "Other Cases," together with the monthly numbers of return cases of Scarlet Fever during 1904.

Months.	Cases Admitted.					Return Cases of Scarlet Fever.
	Scarlet Fever.	Enteric Fever.	Diphtheria.	Small-Pox.	Other Cases.	
January	34	—	12	41	31	3
February	21	—	7	61	35	—
March	47	—	6	75	21	2
April	35	—	10	28	26	—
May	39	—	6	29	20	1
June	31	—	7	33	13	1
July	46	—	14	12	4	—
August	44	—	12	6	6	—
September	44	13	9	8	5	4
October	43	—	16	12	2	—
November	38	1	16	2	1	2
December	38	—	17	14	8	3
Totals	460	14	132	321	172	16

Table of "Other Cases" admitted during 1904.

10		Wrongly diagnosed as Scarlet Fever.
1	On the Hospital Staff.	Pharyngitis and Nephritis.
1		Asthma.
1		Rheumatic Fever.
1		Anæmia.
1		Wrongly diagnosed as Enteric Fever.
156		Small-Pox contacts, &c.
1		Wrongly diagnosed as Diphtheria.
172		

The "other" fatal case was one of Broncho-Pneumonia, sent in as a case of Diphtheria.

EXPENDITURE.

The City Accountant gives the total expenditure on the General Isolation Hospital at Bagthorpe during the year ended with March, 31st, 1905, as £6,754, and that upon the Bulwell Small-pox Hospital, and the maintenance of small-pox contacts and suspects and persons housed during the disinfection of their homes and effects as £1,160.

The accountant is right in the actual allocation of establishment expenses, but it is impossible for him to estimate the amounts of food, drugs, &c., used in each establishment, or to differentiate satisfactorily between the use of various items like horses, ambulances, disinfecting apparatus, laundries, and some members of the male staff (all of which are housed on the Bagthorpe enclosure) on behalf of either hospital.

He has therefore charged the greater part of the cost of these to Bagthorpe Hospital, as the administrative base.

It is necessary to reduce the City Accountant's total of £7,914 of hospital expenditure by £328 before proceeding further, as this part of the total sum was expended in the maintenance of contacts in their own homes. With this correction, the cost per bed in both hospitals taken together works out at £63/4/4,

and the cost per patient at £6/6/5. The cost of maintenance of small-pox contacts and suspects during the usual quarantine period of 16 days, expressed as per head of small-pox cases dealt with in hospital, works out at just over £1/0/0 per head, which seems a very reasonable amount when one considers the good done and evil avoided by means of this system.

THE STAFF.

Dr. E. W. Rees Jones continued to act as Resident Medical Officer at the hospitals and general assistant to me throughout the year, and performed his duties in an eminently satisfactory manner. I am pleased also to be able to record his appointment during the current year as Deputy Medical Officer of Health at Lincoln.

During the recent enteric fever epidemic in Lincoln, the services of Dr. Jones, Inspector Harry Ward, and Samuel Wilmot, of the disinfecting staff, were loaned (by arrangement between all parties) to the Lincoln Corporation, and, after the close of the outbreak, Dr. Jones was permanently appointed as above.

Dr. William Habgood, who at one time was Assistant Medical Officer at Cardiff, and is a gentleman of considerable experience in Public Health work, succeeded Dr. Jones as my assistant. Miss Wallace, I am pleased to say, still retains the post of Hospital Matron.

The year 1904 has been one of exceptional activity and responsibility for the hospitals, on account of the simultaneous prevalence of small-pox, scarlet fever, and diphtheria, and the consequent necessity for dealing, at one time and from the same administrative base, with a large number of patients suffering from each of these diseases. It speaks well for the capacity and conscientiousness of the staff that, notwithstanding the

exceptional pressure of work and the necessity for the unremitting use of precautions against cross infection, in no single instance has this accident occurred among patients under our care, nor has there been any other breakdown in our special preventive arrangements. Such a result could not have been secured without the loyal and continually active co-operation of all sections of the staff, and I am glad to avail myself once more of an opportunity of acknowledging their excellent work and conduct.

Handbills, Leaflets, &c. *(Distributed from the various sections of the Health Department.)*—Leaflet literature, relating to (*a*) the feeding and care of infants, (*b*) the prevention of diarrhœa and cholera, (*c*) the advisability of vaccination in view of the prevalence of small-pox, (*d*) the prevention of tuberculous consumption, (*e*) the care of scarlet fever patients discharged from Fever Hospitals, (*f*) the provisions of the Shop Hours Acts, and (*g*) the Home Office requirements as regards "sanitary accommodation" in factories, will be found reprinted in Appendix A of this Report.

Municipal Laboratory of Bacteriology.—Dr. Jacob furnishes the following report of work done during 1904:—

Particulars of Material received for Examination.

(*a*) In connection with Human Cases of Tuberculosis or suspected Tuberculosis.

1.	Specimens examined for tubercle bacilli, with a positive result - - -	49
2.	Do. do. with a negative result -	116
		165

(*b*) In connection with Human Cases of Diphtheria, or suspected Diphtheria.

1. Specimens (throat swabs) examined for bacillus diphtheriæ, with a positive result - - - - - -	110
2. Do. do. with a negative result -	137
	247

(*c*) In connection with Human Cases of Enteric Fever.

Widal's reaction—

1. Positive result - - - -	60
2. Negative result - - - -	83
	143

In addition to the above, Dr. Jacob has also done much useful work in making bacterial investigation of specimens of condemned or suspected food material.

Owing to the current epidemic prevalence of diphtheria, the City Bacteriological Laboratory has been called upon to perform a highly important diagnostic function during the whole of 1904.

Disinfecting Department.—The work devolving upon this department during the past year has once more been exceptionally heavy, considerably heavier even than during 1903. The amount of this work varies of course directly with the degree of prevalence of the principal epidemic diseases, and as small-pox was epidemic throughout the year, and the prevalence of scarlet fever, diphtheria and enteric fever (taken together) was considerably above the average, it will be understood that the work of the department was unusually arduous. It must be remembered also that the department is now called upon to do a continually growing amount of disinfection for diseases

like tuberculosis and measles, for which only a few years ago it was never practised at all, and that, whatever the inconvenience entailed by extreme pressure upon the staff, it behoves the department in the interest of the public health to encourage the popular resort to disinfection.

When these facts are considered, and it is further understood that promptitude and efficiency must be combined with a due regard to the preservation of the goods and premises entrusted to the department by the public, it will be seen that the function which it undertakes is at once highly onerous and responsible.

Notwithstanding the pressure of work, however, and the fact that disinfection has had to be undertaken almost simultaneously in respect of such diseases as small-pox, scarlet fever, diphtheria, enteric fever and tuberculosis, in no single instance has the accident of cross infection through the agency of the department come to my notice. A few complaints have reached me of damage to materials in the process of disinfection, but such damage, when it has occurred, has been for the most part unavoidable, and should be regarded as in some measure an inevitable consequence of epidemic sickness.

Inspector Williams, who has charge of this department of work, and his assistants have done their duty extremely well, and certainly earn all the recognition their services commonly meet with in the City.

Public disinfection, indeed, is often a thankless task, for many people, especially among the poor, are opposed to anything in the shape of cleansing or disinfection. Many seem even to go the length of

considering that they have a grievance against the Corporation if attacked with epidemic sickness, and that they are entitled to compensation for any loss they may suffer from its visitation.

Articles Disinfected at the Public Stations in Nottingham, 1893-1904.

	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904
Bedding ..	8521	2943	10990	8822	4483	7550	22385	14582	12758	13002	13765	14391
Clothing ..	11266	20579	12652	9012	4768	5554	14605	10517	9403	3785	9707	9268
Furniture & Hngngs.	726	1541	1277	2184	1382	2130	2722	2397	3257	4455	2828	3145
Miscells. Articles	10573	10303	13272	8394	8341	7699	14093	9498	9410	11498	12204	10558
TOTAL ..	31086	35366	38191	28392	18974	22933	53805	36994	34828	32740	38504	37362 †
No. of houses and other premises disinfected during 1904=1891.												

The above table gives the usual particulars of articles and premises disinfected at or from the London Road Station. It has been found impossible to make an exact return of the work done in connection with the Bagthorpe Station, or the numbers would have been some 30 per cent. larger.

The Mortuaries.—The usual table of bodies taken to each of the Public Mortuaries of the City is given below. There has been a considerable increase in the numbers taken to Leen Side, a small increase in those taken to Bulwell, and a slight falling off in the numbers taken to Hyson Green.

The largest numbers admitted in any one month at both Leen Side and Hyson Green were in December.

† This total is exclusive of articles disinfected at the Bagthorpe Station.

Number of Bodies, Male and Female, taken into each of the Public Mortuaries during each month of the year 1904.

MONTH.	LEEN SIDE.		HYSON GREEN.		BULWELL.		TOTAL PER MONTH.	
	Male Bodies.	Female Bodies.	Male Bodies.	Female Bodies.	Male Bodies.	Female Bodies.	Male Bodies.	Female Bodies.
JANUARY	9	4	2	3	1	0	12	7
FEBRUARY	7	5	5	5	0	0	12	10
MARCH	4	3	6	4	4	3	14	10
APRIL	11	5	3	0	0	0	14	5
MAY..	7	3	3	2	0	1	10	6
JUNE	11	7	5	0	0	1	16	8
JULY	5	1	7	2	0	0	12	3
AUGUST	7	4	4	2	0	0	11	6
SEPTEMBER ..	8	1	4	3	0	0	12	4
OCTOBER	7	4	7	2	0	0	14	6
NOVEMBER.. ..	5	5	3	5	1	3	9	13
DECEMBER.. ..	15	13	11	5	0	2	26	20
	96	55	60	33	6	9	162	98

TOTAL, BOTH SEXES—260.

The Public Lavatories of the Town,

now in use, are situated 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.

The extent to which these well-appointed conveniences are patronized by the public is still very unequal, but there can be no doubt that one for both sexes is much needed and would be much appreciated in the neighbourhood of the Lace Market.

Common Lodging Houses.—At the close of 1904 there were 55 of these houses on the City Register, including the two Corporation Houses.

The total bed accommodation of these houses is now sufficient for 1,080 persons.

At the end of 1903 there were 53 houses, with accommodation for 1,060 persons. The additions during the year have come about by the establishment of one new house, and the re-opening of another temporarily closed. Both have been duly registered.

Two transfers were applied for during the year, and both were granted.

Single beds only are provided in both the fresh houses. The Inspector and I, moreover, are agreed that practically all double beds should be done away with in the Common Lodging Houses of Nottingham.

In accordance with the requirements of the Public Health Act, 1875, all the houses on the register were limewashed and cleansed throughout, both in April and October.

The situation and capacity of each of the Common Lodging Houses under private management in the City is given in the following tables:—

Common Lodging Houses. Situation:—	
In Narrow Marsh	42
„ Millstone Lane	1
„ Canal Street and Leen Side	4
„ Main Street, Bulwell	2
„ Portland Place, Coalpit Lane	1
„ Water Street	1
„ Washington Street	1
„ North Church Street	1
„ Popham Street	1
„ Cherry Street	1
	55

Common Lodging Houses. Accommodation Data, 1904.

For Males only.	For Females and Married Couples.	For Females only.	Mixed Houses.	Total.
24	15	1	15	55

	No. of Houses.	Bed Accommodation.						Registered amount of bed accommodation for lodgers.
		Less than 10 beds.	10 to 20.	21 to 30.	31 to 40.	41 to 50.	51 to 60.	
Houses on Register, 1903..	53	7	25	14	4	2	1	1,060
New House opened ..	1	..	1	..	..	..	..	11
Houses re opened	1	1	..	..	..	..	..	9
Houses on Register at end of 1904	55	..	..	..	..	..	..	1,080

The two houses belonging to the Corporation, that in Popham Street for men only, containing 28 beds, and that in North Church Street for women only, with twenty beds, have both received less lodgers than during 1903. The reduction in the case of the Popham Street house was 373, and in the case of the North Church Street house, 594. This reduction in numbers is probably due to the prevailing depression in trade.

Situation of lodging house.	No. of beds.	No. of Lodgers admitted in each of the years.									
		1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.
Popham Street.. (Men only.)	28	7,492	7,331	6,568	6,608	6,792	7,965	8,262	9,282	9,194	8,821
Parliament St... Formerly, now North Church St. (Women only.)	20	5,663	6,252	6,374	6,422	7,053	*3,603	3,612	4,631	5,123	4,529
		13,155	13,583	12,942	13,030	13,845	11,568	11,874	13,913	14,317	13,350

* House closed July 14th to December 24th.

I have long advocated the establishment of better class common lodging houses in Nottingham, furnished with single cubicles, decent interior lavatories, and a refreshment department, such as one now sees in

considerable numbers in London and most other large towns. There can be no doubt of the need for such hostels here, and, judging by the experience of other places, if too much money is not spent upon them—in building, equipping and maintaining—and they are properly managed, they are almost certain to pay their way, even if they do not make a profit, and many of them do that.

Nineteen cases of small-pox were removed from the common lodging houses of the City during the year, and Mr. G. A. Read, Cert. R. San. I., the Inspector of these houses, has been untiring in his efforts to trace the ramifications of infection and check its spread. His management, too, of the rough and often intractable class that frequent these houses has been tactful, firm, and highly effective.

Any of the lodgers who had not been recently vaccinated were offered a gratuity of one shilling if they would submit to the operation, and almost all accepted these terms. Further, all definite contacts were offered free beds for fourteen nights if they would remain under observation for this period, and again nearly all accepted.

Housing of the Working Classes Acts, 1890 and 1900.—No houses have been condemned in Nottingham during 1904, as legal actions in connection with the proposed condemnation of some 37 houses in the Poplar District have been pending throughout the year, and these were regarded to some extent as test cases, that is, so far as the decision of the local magisterial bench was concerned.

The interest and uncertainty with regard to the issues involved were enhanced by the fact that proceedings instituted by the Corporation some ten years ago, in respect of the same houses, were unsuccessful.

It was felt that, if the opinion of the local bench was adverse to the condemnation of houses of the class here represented, it would be useless to institute proceedings in respect of others.

Failing the drastic purge of compulsory closure and demolition, the next best course appears to be that of improving existing slum dwellings by insisting upon their cleansing and repair. Work of this kind has recently been carried out more or less systematically in Nottingham, and where landlords feel themselves aggrieved in being called upon to repair damage and defect due to the act or neglect of bad tenants, they have their ready remedy of refusing to accept such tenants in future.

As I have often pointed out, moreover, this action on the part of landlords, especially when concerted between several, must tend to the disciplinary education of the more careless, selfish and vicious tenants, by reminding them that they have duties to their landlords as well as their landlords to them, and that unless they shew some respect for the landlord's property, no landlord will take them in.

It must be understood that bad tenants are, as far as possible, held responsible by us for dealing with dirt and dilapidation due to their own default.

Two hundred and fifty-seven houses in the City have been cleaned or repaired, by either landlords or tenants, during the past year, and the more I see of this class of work the more I approve it. It has indeed one merit almost peculiar to itself: it teaches the poor to make the best of what they have while waiting for better things, and thus to shew their fitness to possess the latter when at last they shall come.

I have written at some length on this subject of late, and am now much disposed to put it aside for a

time, but the action of philanthropically disposed persons on all hands almost compels one to return to it, even when this course involves continual repetition.

There can, I think, be no doubt that at some future time the exercise of common sense, aided by medico-statistical facts, will lead to the dispersal of most of our unfortunate slum denizens over a part of the suburban areas of cities. Some of these people, however, must necessarily remain near their work. The Liverpool docker and Covent Garden porter cannot go into the country for the night any more conveniently than can the cook or nurse in a private family.

Many of those who must live near their work can most conveniently be housed in tenement blocks, like those in Drury Lane, London, and in the Vauxhall Road district of Liverpool, partly because of the difficulty of providing separate independent dwellings in such situations, and partly because of the greater facilities which the tenements afford to the municipality for exercising a certain amount of disciplinary control over their tenants.

Considerations like these must necessarily affect the question of the future housing of that section of the poor who have to remain in the more central parts of densely inhabited districts.

We have, however, the near as well as the distant future to deal with, and a large number of existing small houses in dense urban districts must be utilized as dwellings for many years to come.

I have repeatedly urged, and, in the case of Nottingham, demonstrated, that a large part of the insanitariness of many districts is due to causes altogether independent of the structure and site of

the houses. Given decent tenants and fair management, much poor house property, at present altogether unfit for habitation, could be made acceptable for a long term of years; and I have already indicated above some of the means by which we have endeavoured to bring about this improvement in Nottingham.

Canal Boats Acts, 1877 to 1884; and Regulations, 1878.—Mr. F. W. Franks, Cert. R. San. I. reports that he has visited the canals and other navigable waters within the city on 73 occasions during the year, and inspected 139 boats. His visits have been made at various times during the hours laid down by the Acts (6 a.m. to 9 p.m.), and at short intervals, and he has on all occasions been allowed free access to the cabins of the boats he has inspected. The cabins were all found to be in a cleanly condition.

The number of women carried on the boats inspected was 20. The number of children carried under 5 years of age was 5, and between 5 and 12 years of age, 6.

Two notices were issued against owners for infringements of the Acts and Regulations as under:—

Water-can defective - - -	1
No certificate on board - - -	1

Both notices were at once complied with.

No case of infectious disease was reported on any boat during the year, nor was it necessary to detain any boat for cleansing or disinfection.

The total number of boats now on the register is 151, 3 having been added during the year.

One boat was registered anew on account of structural alterations, and the name of one boat having been changed its certificates were altered accordingly.

Factory and Workshop Acts, 1891-1901.—On p.p. 130, 131 of this Report will be found tables of inspection made, defects found and remedied, prosecutions instituted, and other matters coming within the cognizance of the Factory Department of the Home Office and dealt with by the Local Authority, during 1904, set out in accordance with the form issued by the Secretary of State for the guidance of Medical Officers of Health in preparing their reports upon (factories) workshops, and workplaces. Under Section 132 of the Act of 1901, the Medical Officer of Health is required to furnish a copy of such report to the Secretary of State.

The amount of work done at the instance of both inspectors (Mr. Flint and Mrs. Exton) is considerably larger than during 1903, but the only department of their work in connection with which it became necessary to resort to legal proceedings was that associated with the closure or alteration of underground bakehouses.

It will be remembered that under Section 101 of the Factory and Workshop Act of 1901, no underground bakehouse could lawfully be used as such after January 1st, 1904, without a certificate of fitness for use from the Local Authority.

As stated in my Report for 1903, the total number of these bakehouses in Nottingham was 104 (or 105). The number in respect of which certificates were applied for was 95. These were all inspected, and it was decided as regards 43 of them that certificates might properly be granted, provided certain structural alterations were carried out, but the other 52 it was decided to condemn.

Notices in detail to this effect were served upon the occupiers of each bakehouse before the end of the summer of 1903, and at the close of the year there

remained only one, in the first category, in the case of which no attempt had been made to comply with the Committee's requirements in the way of structural alterations.

By the end of April, 1905, however, the necessary alteration in this case had been completed, and the certificate of fitness was issued accordingly.

Of those in the second category (of condemned bakehouses) there remained only 8 which were still in use, and 3 of these were finally closed, after a short further delay, at or about the midsummer of 1904. After the issue of a second notice to the occupiers of each of the remainder, and the allowance of a sufficient period of grace, proceedings were taken before the local magistrates to enforce compliance with the Committee's decision. As a result of these proceedings orders were made for the immediate closure of all without exception, and penalties of £1 inflicted in each case—for the offence of using an underground bakehouse as such without a certificate of fitness for use from the local authority.

Shop Hours Acts, 1892 to 1895.—No offences under these Acts have come to my knowledge during 1904, but visits are continually paid by the local workshop inspectors to shops, markets, stalls, and warehouses for the purpose, *inter alia*, of protecting young persons (under 18 years) against over-work as laid down by these Acts, *i.e.*, employment for more than 74 hours (including meal times) in each week. The official notice under these Acts, which every employer of "young persons" is bound to exhibit in a conspicuous place upon his premises (on pain of a 40/- fine for neglect), is reprinted in the Appendix of this report.

Shop Hours Act, 1904. An Act to provide for the early closing of Shops.—This Act, which came into force on August 15th, 1904, provides (Sec. 1) that "An order (in this Act referred to as a closing order) made by a local authority and confirmed by the central authority, in manner provided by this Act, may fix the hours on the several days of the week at which, either throughout the area of the local authority or in any specified part thereof, all shops or shops of any specified class are to be closed for serving customers."

The hour fixed by a closing order must not be earlier than 7 p.m., excepting on one specified day in each week, when it may be as early as 1 p.m.

It is specially provided that a closing order shall not affect any fair lawfully held, any charitable bazaar, post office, drug store, public house, refreshment house or restaurant, tobacco shop, newspaper shop, and railway bookstalls and refreshment bars. No action has yet been taken in Nottingham under this Act.

Midwives Act, 1902.—On and after the 1st of April of the current year (1905) no person not certified under this Act can legally take or use the title of midwife. During the past year public notices have been put up in various parts of the City, giving information as to the effect of the Act, and all practising midwives have also, as far as possible, been personally communicated with on the subject.

By the close of the year some 20 (out of an ultimate total of 45) local midwives had obtained legal certificates, and duly informed us of their intention to practise in Nottingham.

The supervision of the local midwives is at present entrusted to myself and the lady health visitors (Mis Bowers and Miss Buckoll), and if we may judge by

the limited and initial experience of the past year, it would seem probable that the disciplinary part of the office is likely to prove no sinecure.

In pursuance of the provisions of Sec. 8 of the Act, setting out the special duties of local authorities, I have to report as follows:—

No midwife was suspended, with the view of preventing the spread of infection during the past year.

No midwife was convicted of any offence.

The Central Midwives Board were supplied (in January of the current year) with the names and addresses of those midwives who, during 1904, signified their intention to practice in Nottingham.

A copy of the current roll of midwives is kept in the Central Office of the Health Department.

No deaths and no changes of address appear to have occurred during 1904 among the certified local midwives.

Six notifications were received by me during the year of still-births occurring in the practice of midwives.

Diseases of Animals Act, 1894. Orders, Regulations, &c., of the Board of Agriculture.—Seventy separate reputed outbreaks of swine fever were reported to the Board of Agriculture and the Health Committee during the year, and 10 of these proved on investigation to be actual outbreaks of the disease.

In connection with these outbreaks 41 pigs died naturally, and 250 were slaughtered. The verified

outbreaks were distributed in time and place as follows :—

January (*a*) Mill-in-the-Hole, Basford
" (*b*) Quarry Road, Bulwell
February (*a*) Forman's Farm, North Wilford
" (*b*) Mill-in-the-Hole, Basford
March, Mill-in-the-Hole, Basford
April (*a*) Gibbons Street, Dunkirk.
" (*b*) " " "
" (*c*) Hawthorne Street
May (*a*) City Asylum
" (*b*) Bobbers Mill, Basford

One serious and protracted, but happily localized outbreak of glanders, extending from September to December (and for a further two months of the current year), occurred on premises situate on Derby Road and Wollaton Street ; 3 horses died naturally of the disease and 12 were slaughtered. One further horse was attacked in Ford Street, St. Mary, in October. This horse was slaughtered, and no extension of the disease occurred.

These outbreaks were reported in detail to the Health Committee and the Board of Agriculture.

One outbreak of sheep-scab occurred in March, in the Cattle Market. Fifteen sheep were slaughtered in connection with this outbreak.

The revised regulations with respect to the movement of swine in Nottingham, which were issued on March 11th, 1904, were still in force at the close of the year. These regulations may be briefly summarized as follows :—

(*a*) Swine for slaughter within five days of arrival may be brought into the City, provided they are marked, before arrival, with a nine inch red cross on the loins.

(*b*) No other living swine may be brought into the City, except by special permission of the Board of Agriculture.

(*c*) No living swine may be moved out of the City.

Lethal Chamber for Dogs, Cats, &c., at the Eastcroft Sanitary Depôt.—The public appreciation of this establishment increases every year. Its popularity, too, is well founded, for the skilled application of the lethal agents employed (chloroform vapour and carbonic acid gas) insures the practically instantaneous and absolutely painless death of the animals exposed to them.

Persons desiring to witness the operation upon their own animals can do so, and thus satisfy themselves of the truth of this statement.

The management is still in the hands of the Health Department, but the cost is defrayed by the Watch Committee.

The number of dogs and cats annually destroyed since the opening in 1898 are given below:—

	1898.	1899.	1900.	1901.	1902.	1903.	1904.
Dogs	422	472	731	770	856	1078	1325
Cats	64	108	180	297	371	455	735

In the absence of the actual record of the numbers of animals destroyed, it would be difficult to believe that an aggregate equal in number to nearly half the total of human deaths could be forthcoming in a town the size of this.

Slaughter Houses.—The City Register of Slaughter-houses now contains 153, one new house at Bulwell Green having been added during the year.

In the continued lack of public abattoirs, it is gratifying to reflect that the Corporation will shortly possess additional powers for regulating the driving of cattle through streets, and for licensing the cattle drovers employed in the City.

Offensive Trades.—Owing to the serious nuisance occasioned by certain "offensive trades" in Nottingham of late, you have refused the majority of recent applications for permission to open fresh establishments of this character.

During 1904 three applications were received for leave to commence the trade of tripe boiling. One only of these was granted. Three requests for permission to begin the business of gut cleaning were also made, and all refused.

Unwholesome Food Material.—The usual particulars of meat, fish, fruit, vegetables, &c., either surrendered to or seized by the inspectors during 1904, are given in the accompanying lists. The total amounts in the case of butchers' meat and wet fish are unprecedentedly large.

Mr. H. T. Moore is the Inspector of butchers' meat and of cattle, sheep and pigs, and Mr. Samuel Billington, Cert. R. San. I., of fish, game, poultry and general provisions. Both are highly experienced and energetic officers, but the ground each has to cover is altogether too large for any single man, however well qualified and active in the performance of his duties.

Details of legal proceedings arising in connection with seizure of unwholesome food by these officers, and other matters in their department of work, will be found under the heading of prosecutions.

BUTCHERS' MEAT.

	Imperial Stones.	lbs.
Beef	3025	4
Mutton	164	13
Pork	1749	3
Veal	245	3
Lamb	4	0
Viscera	931	10
Sausages, &c.	21	11
Total	6142	2

GAME & POULTRY.

	Stones.
Rabbits	184¼
Geese	100½
Ducks	49¾
Chickens	40¾
Turkeys	32½
Black-game	16
Hares	8½
Capercailzie	4
Hazel Hens	2
Wild Ducks	1
	439¼

WET FISH.

Hake	2695
Herrings	1545
Sprag	1095
Cod	738½
Ling	657
Whiting	411
Haddock	350
Sprats	314
Mixed Fish	276
Codling	221
Dabs	208½
Mackerel	180
Catfish	173
Coalfish	172½
Halibut	165
Fish Roes	144
Plaice	104½
Gurnet	82
Lemon Soles	78½
Skate	47
Conger Eel	44½
Salmon	15
Soles	14½
Turbot	5½
Tusk	5
Pollock	4½
Salmon Trout	3
Smelts	2½
Mullet	2
	9754

SHELL FISH.

Mussels	1394
Shrimps	509½
Whelks	263
Oysters	135½
Cockles	86
Periwinkles	43
Crabs	37
Prawns	28¾
Lobsters	20
Cray Fish	15
	2531¾

DRY FISH.

Kippers	997½
Bloaters	540½
Finneys	408
Smoked Mackerel	19
,, Sardines	8
	1973

FRUIT.

	Stones
Pears	102
Chestnuts	60
Gooseberries	54
Cocoa Nuts	36½
Walnuts	24
Apples	10
Peaches	6
Plums	4½
Black Currants	3
Bananas	1
	301

VEGETABLES.

Carrots	2218
Potatoes	530
Cabbage	392
Tomatoes	270
Red Cabbage	134
Celery	154
Turnips	118
Onions	105
Parsley	94
Lettuce	76
Parsnips	72
Brussel-Sprouts	28
Kidney Beans	5
Rhubarb	8
Mushrooms	3
Vegetable Marrows	2
	4209

TINNED GOODS.

Tomatoes	495½
Milk	244½
Lobster	132¼
Pineapples	119½
Salmon	90¼
Apricots	56¼
Sardines	43¼
Pears	29
Peaches	14
Apples	11½
Rabbit	9
Plums	6
Strawberries	4
Bloater Paste	½
Shrimp Paste	½
	1256

MISCELLANEOUS.

Eggs	128
Pickled Onions	99½
Yeast	26
Pickled Vegetables	20
Fish Sausage	6
Chillies	6
Piccalilli	2
Walnuts	1½
Pickled Cabbage	1
,, Mushrooms	½
	290½

Dairies and Cowsheds—Clean and Sterilized Milk.—The number of milk-sellers in the City Register is now 484.

The revision of the Milksellers' Register is still proceeding, and Inspector J. A. Sutton, Cert. R. San. I., has been instructed to make out as complete a list as possible of all milk-vendors in the City. In the course of his investigations he has discovered a large number of unfit places—such as small general provision and butcher's shops, private cellars, and even dwelling rooms—used as milk shops and stores.

The regulations made under the Dairies, Cowsheds and Milkshops Order, forbid the keeping of milk in contiguity with anything liable to communicate any foreign matter or quality to it, and, as most of these shops and places do contain such things, it becomes in all respects legitimate and desirable to stop the keeping of milk in them.

I am pleased to say that a large number of people, who had kept (and sold) milk in such unfit places, at once discontinued the keeping when they learnt that they were infringing the regulations by doing so. Others, however proved less tractable, and as you have not been able to see your way to the all-round enforcement of the regulation forbidding such keeping, there appears to be some danger of a general lapse into the old loose methods of dealing with milk for sale.

This check is the more regrettable, for the fact that we have lately been making some headway in the direction of securing greater cleanliness in cowkeeping and milking, and in the putting up of milk for sale, on the part, especially, of some of the larger dealers.

In discussing the matter with several small general shopkeepers, who are also milk-sellers, the Inspector and I have repeatedly been told that very little is usually

made out of the sale of milk from small shops, and that the shopkeepers would willingly give it up if their rivals would also do so.

When we consider this statement in conjunction with the facts, (*a*) that pure milk is an essential to the well-being of young hand-fed children (and a large proportion of young infants are now wholly or partially hand-fed), (*b*) that it cannot be obtained from these small shops, and (*c*) that there are plenty of large milk dealers who are prepared to undertake the sale of clean or sterilized milk on an extensive scale if only they can see a fair prospect of a profitable return from the sale, it seems in all respects desirable to put the regulations in force and stop the sale of milk from such places.

The number of cow-keepers on our register is 70.

The premises of many of these have been greatly improved of late, but others remain hopelessly bad. In the case of a large number of the latter, the only proper course appears to be to put the regulations affecting such premises rigidly in force, by insisting upon their reconstruction or total closure.

Wholesome conditions of life for the cows and clean milk are the essentials for which we ask, and these are unattainable in the case of a large number of the existing cow-keepers' premises.

It is often difficult to secure an appreciation of what is here meant by clean maintenance and clean milk on the part of the working dairyman, even on the best appointed premises, but on those I here refer to it is altogether impossible to do so.

I may mention that the sale of clean and sterilized milk is now undertaken by more than one of our larger local firms, but it is plain that, without some

clearance of the legion of unfit dealers and premises I have described, any attempt to obtain its general use on the part of the poor, by the establishment of depôts for its sale, would be likely to end in failure.

Ice Creams.—In my next Annual Report I shall have to record the acquisition by the Corporation of new and special powers for controlling the manufacture, sale, and storage of ice cream.

These powers are already possessed by many other municipalities, and I have long urged the desirability of obtaining them for Nottingham.

Sale of Food and Drugs Acts, 1875-1899. Adulteration and Abstraction.—The samples taken under these Acts during 1904, and sent to the City Analyst (Mr. S. R. Trotman, M.A., F.I.C.), for analysis, numbered 602. Mr. Trotman reports that 491 of these are practically pure or genuine, and 118 adulterated, deficient, or spurious.

	No. of Samples.	No. Pure.	No. Deficient or Adulterated:	
			Deficient in Fat.	Added Water.
Milk	256	224	1. 30% 1. 19% 1. 14½% 1. 13% 1. 11% 1. 10% 1. 8% 1. 6·5% 1. 5% 1. 4% 2. 3·3% 5. 3% 17	1. 40% 1. 37% 1. 24½% 1. 20% 1. 19% 1. 18% 1. 17% 1. 16.0 2. 15% 1. 14% 1. 13% 1. 6% 1. 5% 2. 4% 1. 3·5% 4. 3% 1. 2% 22
Milk, Separated	2	2	..	Both Pure.
Cream	6	6	..	All Pure.
			With Foreign Fat.	With Excess Water.
Butter	84	77	2. 95% 1. 85% 3	1. 30% 1. 11% 1. 10% 1. 9·5% 4

									With Foreign Fat.	
Bread & Butter	2	..	1	..	..	..	..	1.	0.7 grains.	
Margarine	3	..	3	..	..	..	..	..	All Pure.	
Lard	4	..	4	..	..	..	..	..	All Pure.	
Cheese	11	..	11	..	..	..	..	..	All Pure.	
Bread	11	..	11	..	..	..	..	..	All Pure.	
Treacle	6	..	6	..	..	..	..	..	All Pure.	
									With Arsenic.	
Demerara Sugar	8	..	7	..	..	..	..	..	1. $\frac{1}{360}$ grain per lb.	
									With Boric Acid :	
Sausage	6	..	3	..	..	..	..	..	1. 0·8 grains.	
									1. 0·3 ,,	
									1. 0·23 ,,	
									3	
Mincemeat	1	..	1	..	..	..	..	..	Pure.	
Raspberry Jelly	1	..	1	..	..	..	..	..	Pure.	
									With Copper :	
Preserved Peas	1	..	—	..	..	..	..	..	1. $\frac{1}{10}$ grain per lb.	
									With Arsenic :	
Aniseed Sweets	2	..	1	..	..	..	..	..	1. $\frac{1}{200}$ grain per lb.	
Tea	4	..	4	..	..	..	..	..	All Pure.	
Coffee	4	..	4	..	..	..	..	..	All Pure.	
Coffee Mixture	2	..	2	..	..	..	..	..	Both Pure.	
Cocoa	6	..	5	..	..	..	..		Added Starch. 1. 4%	
Arrowroot	1	..	1	..	..	..	..	..	Pure.	
Ground Rice	4	..	4	..	..	..	..	..	All Pure.	
Tapioca	2	..	2	..	..	..	..	..	Both Pure.	
Sago	4	..	—	..	..	..	..		With Tapioca : 4. 100%	
Pepper	9	..	9	..	..	..	..	..	All Pure.	
Mustard	8	..	7	..	..	..	..		Added Starch. 1. 20%	
Ground Ginger	2	..	2	..	..	..	..	..	Both Pure.	

					With		
					Arsenic.	Glucose Vinegar.	Acetic Acid.
Vinegar	16	..	10	..	1. $\frac{1}{300}$ grain per gal.	1. 30%	1. 50%
					1. $\frac{1}{700}$,, ,,		
					2. $\frac{1}{1000}$,, ,,		
					4		
Olive Oil	10	..	9	..	.. .. ..	With Foreign Oil. 1. 100%	
Cod Liver Oil	4	..	4	..	.. .. ..	.. All Pure.	
						With Arsenic.	
Ale	34	..	2	..	.. .. ..	1. $\frac{1}{36}$ Grain per Gallon.	
						1. $\frac{1}{40}$,, ,,	
						4. $\frac{1}{45}$,, ,,	
						2. $\frac{1}{50}$,, ,,	
						3. $\frac{1}{60}$,, ,,	
						2. $\frac{1}{70}$,, ,,	
						1. $\frac{1}{80}$,, ,,	
						9. $\frac{1}{90}$,, ,,	
						3. $\frac{1}{180}$,, ,,	
						4. $\frac{1}{200}$,, ,,	
						1. $\frac{1}{240}$,, ,,	
						1. $\frac{1}{360}$,, ,,	
						32	
Whisky	4	..	4	..	.. .. ..	.. All Pure.	
Gin	13	..	13	..	.. .. ..	.. All Pure.	
						With Foreign Spirit.	
Brandy	8	..	—	..	.. .. ..	.. 1. 50%	
						2. 40%	
						1. 38%	
						4. 35%	
						8	

Lime Water	5	..	4	..	..	..	..	..	Deficient in Lime. 1. 22%
Paregoric	9	..	7	..	Deficient in Opium. 1. 70%				Deficient in Alcohol. 1. 5%
Laudanum	9	..	8	..	..	..	..	..	Deficient in Alcohol. 1. 50%
Camphorated Oil	5	..	4	..	..	..	..	..	Deficiency in Camphor. 1. 55%
Somatose	2	..	2	..	..	..	..	..	Both Pure.
Sweet Nitre	11	..	7	..	..	..	..	..	Deficient in Ethyl Nitrite. 1. 60% 1. 42% 1. 40% 1. 28% 4
Tartaric Acid	7	..	6	..	..	..	..	..	With Lead. 1. ·005%
Cream of Tartar	3	..	3	..	..	..	..	..	All pure.
Glycerine	2	..	—	..	..	..	..	..	With Arsenic. 1. $\frac{1}{144}$ grain per lb. 1. $\frac{1}{150}$ „ „ 2
Precipitate Ointment	4	..	4	..	..	..	..	..	All Pure.
Prescription containing Potass. Iodide	6	..	6	..	..	..	..	..	All Pure.
	602		491						118
	Total Samples.		Pure.						Deficient or Adulterated.

It will be seen that these totals do not balance. This is due to the existence of more than one fault in some individual samples.

Particulars of legal proceedings in respect of offences under these Acts, and their results, will be found under "Prosecutions" below.

Prosecutions.—A list of all offences under the Sale of Food and Drugs Acts, the Public Health Acts, and the Factory and Workshop Act, in respect of which legal proceedings were instituted by order of the Health Committee, with the result of such proceedings in each case, is given in the following table.

The number of cases was unusually large, and all were successful.

SALE OF FOOD AND DRUGS ACTS.

Offence.	Result.
Sale of Milk containing 37% added water	Fine of £1.
" " 20% "	Fine of £2.
" " 16% "	Fine of £4.
" " 15% "	Fine of £1.
" " 14% "	Fine of £2.
" " 13% "	Fine of £1 and costs
" deficient in fat 43% and added water 5%	Fine of £3.
" " " 23% " " 3%	Fine of £1.
" " " 13% " " 10%	Fine of £5.
" " " 11% " " 15%	Fine of £2.
" " " 4% " " 19%	Fine of £5.
Delivering Milk containing 17% added water	Fine of £1 10s.
Sale of Butter containing 95% Margarine	Fine of £1 10s. and costs.
" 95% "	Fine of £1 and costs.
30% excess of moisture	Fine of 10s.
10% " "	Fine of 4s. 6d.
" " 9½% " "	Fine of £1.
Sale of Olive Oil containing 75% of foreign oil	Fine of 10s.
" Malt Vinegar " 50% Acetic Acid Vinegar	Fine of £1.
" Sweet Nitre 60% deficient in Ethyl Nitrite	Fine of 10s.
" " 42% " "	Fine of 10s.
" " 40% " "	Fine of 10s.
" " 28% " "	Fine of £1.
Refusing to sell Inspector	Fine of £10.
" " "	Fine of £5 and costs.
" "	Fine of £5.
" "	Fine of £1.
Impeding Inspector in course of duty	Fine of £1.
Obstructing Inspector	Fine of £1.

PUBLIC HEALTH ACTS.

Offence.	Result.
Deposit of Unsound Black Puddings and Sausages for sale	Fine of £5.
" " Fish "	Fine of £1.
" " " "	Fine of £1.
Exposure " Rabbits "	Fine of £1.
" " " "	Fine of £1.
" " Cocoanuts "	Fine of 10s.

FACTORY AND WORKSHOP ACT.

Offence.	Result.
Use of Underground Bakehouse Uncertified by District Council	Fine of £1.
do. do.	do.
do. do.	do.
do. do.	do.
do. do.	do.

Notices.—The written notices issued from the office of the Health Department during 1904 were as follows:—

Ordinary Notices	-	-	-	-	954
Statutory „	-	-	-	-	243

There was an increase in the statutory, but a decline in the ordinary notices, as compared with the previous year. The fluctuations in the numbers of these notices issued during given periods is largely a matter of accident. It must be remembered that much of the work done through the instrumentality of the inspectors is carried out in response to suggestions conveyed by word of mouth or by ordinary letter.

The District Inspectors.—In my Report for 1903 I alluded to the pressure of extra work and responsibility directly and indirectly occasioned to all divisions of the Health Department by the small-pox outbreak. This pressure was much more strongly felt during 1904 than in the previous year, for the disease had obtained a firmer hold, and the number of fresh centres and cases was increased by nearly 100 per cent. in 1904, as compared with the previous year.

Two of the District Inspectors, Messrs. Byrns and Ward (Cert. R. San. I.) were put on special small-pox duty, with the understanding that they should devote their spare time to the work of general inspection in their districts, and Inspector Herbert Read (Cert. R. San. I.), whose principal duty is that of clerk in the Health Department, was appointed an extra outside inspector, *pro. tem.* I am pleased to say that Mr. Herbert Read has proved himself a highly efficient inspector. These changes were officially made to meet the emergency, but there remained a need for co-operation and mutual assistance to make things run smoothly under altered conditions, and this co-operation and assistance, I am glad to say, was forthcoming on all hands as the need arose.

The number of items of sanitary work classed under the head of abatement of nuisances (page 132) was slightly less than in 1903—3,485 in 1904, as compared with 3,652 in 1903—but there was no reduction in the amount of some of the more essential work. For example, the number of houses repaired during 1904 was 159, as compared with 146 in 1903, and the number cleansed 98, as compared with 24 in 1903.

Lady Health Visitors.—The rôle of these officers is now so generally recognized and approved, that it seems hardly necessary to expatiate upon it. Still, for the sake of those who are not fully acquainted with the work they do, it may be desirable to devote a short paragraph to a description of this work. Their first function when, as with us, their numbers are small and the population relatively large, is to visit poor houses invaded by minor infectious diseases—notifications of which are sent in principally by the elementary school authorities — and advise those responsible for the care of patients upon the best methods of nursing the latter and of managing their households during the period of invasion.

This is specially desirable when, as often happens, no medical man is called in.

The question of school attendance necessarily arises in this connection, and upon this they are frequently called upon to advise, after consultation it may be with myself or the school authorities. The visit to the home for this specific purpose affords the lady visitor an opportunity of ingratiating and establishing herself as a general counsellor upon health matters. She also hears of many matters falling within the province of the district sanitary inspector, and of which she can notify him with advantage.

When these lady visitors are sufficiently numerous, there is open to them a large field of usefulness in the domain of school, workroom and factory hygiene, infant feeding, and nursing, and other like subjects which will at once occur to those conversant with the needs of the poor.

With us, at the present time, pending some more systematic arrangement for administering the provisions of the Midwives Act, the lady visitors serve, and serve very efficiently too, as superintendents of midwives.

The necessity for this new addition to our statute book is sufficiently demonstrated by the difficulty of securing compliance with the rules affecting the conduct and practise of midwives framed under the Act by the Central Midwives Board.

These rules are none too stringent, but a large number of the local midwives are totally incapable of understanding the principles which underlie them, and therefore regard the rules themselves as unnecessary and vexatious.

A consideration of the functions here set out as appertaining to the office of the lady health visitor will, I think, be sufficient to convince any thoughtful person that there is a great and growing field of usefulness for properly qualified ladies among the poorer sections of the community, especially in urban districts.

FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES, AND HOME-WORK.

[Inspectors Flint (Male) and Exton (Female).]

1.—Inspection.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions
Factories (including Factory Laundries) ..	240	28	..
Workshops (including Workshop Laundries)	3,400	24	..
Workplaces	..	..	..
Home-workers' Premises	400	..	..
Total	4,040	52	..

2.—Defects Found.

Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
Nuisances under the Public Health Acts :—				
Want of Cleanliness	300	290		
Want of Ventilation	8	8		
Overcrowding	11	11		
Want of drainage of floors	..	..		
Other nuisances	70	70		
Sanitary accommodations .. insufficient	15	15		
Sanitary accommodations .. unsuitable or defective	97	97		
Sanitary accommodations .. not separate for sexes	15	15		
Offences under the Factory and Workshop Act :—				
Illegal occupation of underground bakehouse (S. 101)	5	5	nil	5
Breach of special sanitary requirements for bakehouses (SS. 97 to 100)	190	190		
Failure as regard lists of outworkers (S.107)	..	..		
Giving out work to be done in premises which are unwholesome (S. 108)	1	1		
Giving out work to be done in premises which are infected (S. 110) ..	100	100		
Allowing wearing apparel to be made in premises infected by scarlet fever or small-pox (S. 109)	12	12		
Other offences	24	24		
Total	848	838		5

3.—Other Matters.

Class.	Number.	
Matters notified to H.M. Inspectors of Factories :—		
Failure to affix Abstract of the Factory and Workshop Act (S. 133)	36	
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Act (S. 5) .. .. — Notified by H.M. Inspectors	27	
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Act (S. 5) .. .. — Reports (of action taken) sent to H.M. Inspectors	27	
Other	..	
Underground Bakehouses (S. 101) :—		
In use during 1903	95	
Certificates granted — in 1903	28	
Certificates granted — in 1904	15	
In use at the end of 1904	42	
Homework :—	Number of	
Lists of Outworkers (S. 107) :—	Lists.	Outworkers.
Lists received	214	2,395
Addresses of outworkers — forwarded to other Authorities	170	450
Addresses of outworkers — received from other Authorities	6	
Homework in unwholesome or infected premises :—	Wearing Apparel :	Other.
Notices prohibiting homework in unwholesome premises (S. 108)	1	
Cases of infectious disease notified in homeworkers' premises	9	53
Orders prohibiting homework in infected premises (S. 110)	12	100
Workshops on the Register (S. 131) at the end of 1904.		
Important classes of workshops, such as workshop bakehouses, may be enumerated here. — Bakehouses (including underground) ..	177	
Important classes of workshops, such as workshop bakehouses, may be enumerated here. — Other Workshops	1,600	
Total number of Workshops on Register ..	1,777	

NOTTINGHAM, 1904.

Abatement of Nuisances (in Districts).

Description of Work Done.	Inspector Ward. Cer. R. San. In.	Inspector Old.	Inspector Byrns.	Inspector Betts.	Inspector Sutton. Cer. R. San. In.	Total.
Houses Repaired	57	8	3	66	25	159
,, Cleansed	2	2	4	3	87	98
,, Overcrowding of, Abated..	..	1	..	2	5	8
Bath Wastes Disconnected ..	..	..	1	11	..	12
,, Trapped	3	7	4	9	..	23
Sink Wastes Disconnected .	..	4	4	3	3	14
,, Trapped	..	2	3	10	12	27
Drains Repaired and Cleansed ..	89	113	149	211	70	632
,, Trapped	8	251	64	51	36	410
Water-Closets Repaired	13	13	51	49	10	136
Pail Closets Repaired	64	56	67	208	27	422
,, Provided	..	..	..	..	..	..
Waste-water Closets Repaired .	8	123	2	40	1	174
Ashpits Abolished	..	46	11	28	2	87
Privies Abolished	..	69	8	42	2	121
Water-Closets provided in lieu of Privies	..	72	7	44	3	126
Water-Latrines provided in lieu of Privies..	..	9	..	2	..	11
Water-Closets provided in lieu of Pail-Closets	6	13	10	2	..	31
Soft-water Cisterns Cleansed ..	6	13	9	13	1	42
Courts and Yards Paved	37	58	44	73	10	222
Piggeries Abolished	4	22	5	17	..	48
Stables, etc., Drained	1	7	2	..	1	11
Urinals Repaired, etc.	..	6	7	1	3	17
Manure Pits Repaired, etc. ..	4	10	6	5	..	25
Offensive Accumulations Removed	10	36	16	21	26	109
Miscellaneous	63	96	79	94	188	520
Totals	375	1037	556	1005	512	3485

APPENDIX A.

HANDBILLS AND LEAFLETS.

City of Nottingham. The Feeding and Care of Infants.

1.—The natural and best food for a young infant is its mother's milk.

2.—The child should be suckled once every two hours during the day, and once every four hours during the night, until it is about three months old, and at gradually lengthening intervals after the lapse of this period.

3.—The child should, if possible, receive no other food than its mother's milk until it is at least six or seven months old.

4.—During the suckling period the mother should take plenty of good, plain, nourishing food, but should avoid alcoholic stimulants and spices.

5.—The mother should wash her nipples after each time of suckling. If they become sore she should apply some glycerine or lanoline to them, and, if necessary, use a nipple-shield carefully cleaned with soap and warm water after each time of using.

The following instructions may be advantageously followed, at the earlier ages in cases where the mother is unable to suckle her infant, and at the later ages in all cases.

(*a*) During the first six weeks after birth the child should be fed every two hours throughout the day, reckoned between 4 a.m. and 10 p.m., and once again between these hours in the night. Its food should consist of one part of fresh, pure cow's milk, and two parts of water, mixed and boiled, and, after boiling, sweetened with a small teaspoonful of Porto Rico sugar to each pint (of the mixture). Barley water may sometimes with advantage be used instead of plain water, but lime water is better avoided. The mixture should be kept in a clean covered vessel, and in a clean cool place, between meals. The temperature of the food given to a young child should be 95 degrees Fahrenheit, *i.e.*, about the heat of the human hand. One-and-a-half ounces (three tablespoonfuls) to two ounces (four tablespoonfuls) should be given to a child each time it is fed.

Two bottles should always be used, each alternately; one being scalded and rinsed, and afterwards left to soak, while the other is in actual use. The bottles should have no tube or neck, but have a mouth large enough to admit the first finger, and this should be fitted with an india-rubber teat only. The teats should be washed inside and out, after each time of using, with soap and warm water.

(*b*) From six weeks to three months old the child should be fed with a mixture of equal quantities of cow's milk and water, with sugar as above; but two teaspoonfuls of cream may now be advantageously added to each meal. The quantity given at each meal should be about four ounces (eight tablespoonfuls). The interval between meals should now be gradually but continually lengthened.

(*c*) From three months to seven months old the child should have a mixture of two parts of cow's milk to one of water. About four ounces (eight tablespoonfuls) should at first be given at each meal, but, the intervals between meals being still lengthened, a larger quantity than this will soon be required for each. The quantity of cream given with each meal may now be increased from two to three or four teaspoonfuls.

The following is a useful working rule for the feeding of a child, with such substitutes for mother's milk as mentioned above, during the period in which liquids should be exclusively used :—

Begin with about 16 oz. a day of twenty-four hours, as under (*a*). Increase this by the addition of 1 oz. to 2 oz. a week up to the end of the first month. After the first month add 4 oz. a month up to the end of the seventh month. At this period, unless the child is regularly to have some quantity of the farinaceous food mentioned in the next paragraph, its milk should amount to at least 40 oz. a day. At nine months a milk-fed child should have three pints in the twenty-four hours.

(*d*) From seven months to twelve months old the child should be given five meals in a day of twenty-four hours. The number of meals will thus have been reduced by a little more than one-half (from eleven to five) in the first seven months. Each meal should consist at the first of about five or six ounces (ten or twelve tablespoonfuls) of undiluted cow's milk, with cream as under (*c*); but three of the meals may also each contain about a teaspoonful or more of some whole-meal farinaceous food, well boiled and stirred up with the milk. All the meals in this period should be given between 6 or 7 a.m. and 9 or 10 p.m.

(*e*) From twelve months to eighteen months old the child should again be fed only during the day, and at about the same intervals (on five occasions) between early morning and night. The amount of milk should be about twice as great as given under (*d*), and porridge, bread and milk, bread and gravy, bread and butter, and a lightly boiled egg occasionally, may with advantage be given with, or in place of the milk as time goes on. It must not be forgotten, however, that pure fresh cow's milk, well boiled, is an excellent and sustaining food, as well as a palatable drink for human beings at all ages.

The quantities of food given above are those generally suitable, but the capacity of children for food varies much, and signs of indigestion due to over-feeding should not be overlooked because a comparatively moderate amount of food is being taken.

It is unwise for a mother to undertake the medical treatment of her child, except, perhaps, to the extent of giving it a little opening medicine occasionally. She should never give it sleeping or quieting medicine except under medical advice.

A young child should not on any account sleep in the same bed with nurse or parents.

A young child should be warmly but loosely clothed over the whole of its body and limbs, and as few pins as possible should be used in dressing it.

It should be remembered that a young child is exceedingly liable to suck or to swallow anything within its reach which admits of being so treated.

It should also be borne in mind that a young child has no dread of fire or hot things unless or until it is actually burnt.

PHILIP BOOBBYER, M.D.,
Medical Officer of Health, Nottingham.

City of Nottingham. Prevention of Diarrhœa and Cholera.

These diseases may in great measure be avoided by the exercise of common care. Cleanliness of person and surroundings and a judicious diet are the best possible safeguards against them. Their germs enter the system through contaminated air, water, and food; it is most important, therefore, to secure the utmost possible purity of these three vital agents.

All parts of a house should be freely ventilated both by day and night:—there is as a rule much less harm to be apprehended from too much than too little fresh air, whatever its temperature or degree of moisture. No decomposing refuse should be allowed to remain in the house or its neighbourhood; all vegetable refuse should be burnt in the kitchen fire. The floors of all rooms, passages, and stairways should be frequently washed with soap and water, and all private courts, alleys, and yards should be flushed with fresh water, as often as possible. All dirty walls should be scraped and limewashed. All drains in the neighbourhood of the house should be flushed at short intervals, and all obstructions to the drainage and faults in the drains, which cannot be dealt with by the tenant, should be reported at once to the **Health Department in the Guildhall.** It is most important that all house drains should be completely disconnected from the sewers. All other offensive nuisances which are not receiving the necessary attention should also be at once reported.

The Public Water Supply of the town is now happily above the suspicion of contamination, but no water even from this source should be allowed to stand before being used for drinking purposes, and all water from private wells or other like sources should invariably be boiled before use.

Only sound and fresh flesh of any kind should be used as food, and this should be well cooked. The same remark applies to cooking vegetables of every description. Unripe or over-ripe fruit should be rigorously avoided. Infants under nine months of age should receive nothing but milk, or milk and water, well boiled, when the milk is from any other source than the mother's breast. All food utensils, and especially milk vessels and babies' feeding bottles, should be well washed and soaked before use, in clean, and, if possible, boiling water.

A qualified medical man should be at once called in to every case of severe bowel disturbance. It is a wise precaution to disinfect with strong solution of carbolic acid the bowel discharges of all Diarrhœa patients, before placing them in the closet pan or pail. All articles or material soiled with such discharges should be at once soaked and cleansed with the same solution.

After it has been ascertained that a patient is suffering from Asiatic Cholera it is essential that the strictest isolation should be maintained at home or in hospital, and that all discharges from the patient's body should be disinfected and placed in a separate receptacle, which will be provided and scavenged by the Corporation; and, further, that all articles soiled with such discharges should be promptly disinfected, or destroyed by fire. Persons attending upon Cholera patients should not touch with their hands, their own or other persons' faces, or any food or food utensil intended for their own or other unaffected person's use. Any case suspected to be one of **Cholera** should be at once notified to me at the **Health Department in the Guildhall.**

PHILIP BOOBBYER, M.D.,

Guildhall, Nottingham. *Medical Officer of Health.*

City of Nottingham. Prevention of Tuberculous Consumption.

This disease is infectious, and liable to spread among persons living in contact with those suffering from it. It is, however, in many cases entirely curable under appropriate treatment.

Where the lungs are principally affected, the spit of the patients contains most of the poison. This should, as far as possible be received into a vessel containing a strong solution of Carbolic Acid (1 of Carbolic to 20 of Water), and all washing materials and utensils soiled by the patients should be soaked in the same solution before being washed.

The spit and other infectious matters from consumptive patients, whether disinfected or not, should always be destroyed (if possible by fire) before they become dry. They are most dangerous when dried, especially when taking the form of dust.

Consumptive patients should always sleep alone.

The rooms of consumptive patients should be freely ventilated both by day and night, and should be disinfected and cleaned (with damp cloths that have been soaked in disinfecting liquid) at short intervals.

Consumptive patients should spend as much time as possible in the open air. In case of the death or removal of any consumptive patient, the Health Department will undertake the disinfection of the infected house and materials.

A considerable proportion of milch cows suffer from tuberculous disease, and the milk of such cows, especially when the udders are affected, is liable to be highly charged with the tuberculous poison. It has been shown that animals taking tuberculous milk in the raw state are exceedingly liable to contract the disease; all ordinary cow's milk, therefore, should be sterilized or boiled before use.

PHILIP BOOBBYER, M.D.,

Guildhall, Nottingham. *Medical Officer of Health.*

Nottingham Corporation. Bagthorpe Hospital. Scarlet Fever.

To Parents, Guardians, and Others.

Although every care is exercised to prevent the carriage of infection by persons discharged from Bagthorpe Hospital, it is impossible in some instances to insure against such an accident, for no one can say with certainty how long the scarlet fever poison may lurk in the system. Parents and others are warned against allowing recently discharged patients to come into unnecessarily intimate contact with others. No person discharged from a Fever Hospital should be allowed to sleep in the same bed as another until at least a fortnight after such discharge. A short holiday in the country, spent as far as possible apart from others and in the open air, is always desirable for persons convalescing from scarlet fever. But all persons recovering from scarlet fever should be warmly clothed, and otherwise protected against cold. Any recently discharged person who complains of sore throat, nose, or ears, or who has a breaking out on the skin, should be at once isolated, and placed under the care of a medical man. In any case the Corporation cannot accept responsibility or liability for the outbreak of infection occurring among the companions of persons recently discharged from hospital.

PHILIP BOOBBYER, M.D., *Medical Superintendent.*

City of Nottingham. Small-Pox and Vaccination.

Small-Pox is once more prevalent in this District and many other parts of the Country, and numerous fresh cases are reported daily. It is, therefore, desirable for people resident in Nottingham (and elsewhere) to seek protection against it.

Good Recent Vaccination is an Efficient Protection against Small-Pox, and the degree of protection it confers is directly proportional to the recentness and thoroughness of the operation.

All persons who have not been properly vaccinated or re-vaccinated within the past ten years, should be well vaccinated without delay.

The risk of injury from vaccination when considered in relation to the total amount of vaccination work done, is altogether insignificant.

PHILIP BOOBBYER, M.D.,

Guildhall, Nottingham. *Medical Officer of Health.*

Official Notice under the Shop Hours Acts, 1892 to 1895, to amend the Law relating to the Employment of Young Persons in Shops.

Notice is Hereby Given that, under the above Acts, a young person cannot be employed in or about a shop for a longer period than seventy-four hours, including meal times, in any one week.

A young person cannot, to the knowledge of his employer, be employed in a shop who has been previously on the same day employed in any factory or workshop, as defined by the Factory and Workshop Act, 1878, for the number of hours permitted by the said Acts, or for a longer period than will, together with the time during which he has been so previously employed, complete such number of hours.

In every shop in which a young person is employed, a Notice must be kept exhibited by the employer in a conspicuous place, referring to the provisions of these Acts, and stating the number of hours in the week during which young persons may lawfully be employed therein. If any employer fails to keep exhibited this Notice in the manner required, he is liable to a fine not exceeding forty shillings.

Where any young person is employed in or about a shop contrary to the provisions of these Acts, the employer will be liable to a fine not exceeding one pound for each person so employed.

The Council of any County or Borough, and in the City of London the Common Council, may appoint such Inspectors as they may think necessary for the execution of these Acts within the areas of their respective jurisdictions, and Sections 68 and 70 of the Factory and Workshop Act, 1878, shall apply in the case of any such Inspector as if he were appointed under that Act, and as if the expression "Workshop," as used in those sections, included any shop within the meaning of these Acts.

In these Acts, unless the context otherwise requires, "Shop" means retail and wholesale shops, markets, stalls, and warehouses, in which assistants are employed for hire, and includes licensed Public-houses and Refreshment-houses of any kind.

"Young person" means a person under the age of eighteen years.

Other words and expressions have the same meanings respectively as in the Factory and Workshop Act, 1878.

Nothing in these Acts applies to shops where the only persons employed are members of the same family dwelling in the building of which the shop forms part, or to which the shop is attached, or to members of the employer's family so dwelling, or to any person wholly employed as a domestic servant.

And Notice is Hereby Given, that no young person can be employed in or about these premises for a longer period than seventy-four hours, including meal times, in any one week.

The Sanitary Accommodation Order of 4th February, 1903.

In pursuance of Section 9 of the Factory and Workshop Act, 1901, I hereby determine that the accommodation in the way of sanitary conveniences provided in a factory or workshop shall be deemed to be sufficient and suitable within the meaning of the said section if the following conditions are complied with and not otherwise:—

1. In factories or workshops where females are employed or in attendance there shall be one sanitary convenience for every 25 females.

In factories or workshops where males are employed or in attendance there shall be one sanitary convenience for every 25 males: provided that—

(*a*) In factories or workshops where the number of males employed or in attendance exceeds 100, and sufficient urinal accommodation is also provided, it shall be sufficient if there is one sanitary convenience for every 25 males up to the first 100, and one for every 40 after;

(*b*) In factories or workshops where the number of males employed or in attendance exceeds 500, and the District Inspector of Factories certifies in writing that by means of a check system, or otherwise, proper supervision and control in regard to the use of the conveniences are exercised by officers specially appointed for that purpose it shall be sufficient if one sanitary convenience is provided for every 60 males, in addition to sufficient urinal accommodation. Any certificate given by an Inspector shall be kept attached to the general register, and shall be liable at any time to be revoked by notice in writing from the Inspector.

In calculating the number of conveniences required by this order, any odd number of persons less than 25, 40, or 60, as the case may be, shall be reckoned as 25, 40, or 60.

2. Every sanitary convenience shall be kept in a cleanly state, shall be sufficiently ventilated and lighted, and shall not communicate with any work-room except through the open air or through an intervening ventilated space: provided that in work-rooms in use prior to 1st January, 1903, and mechanically ventilated in such a manner that air cannot be drawn into the work-room through the sanitary convenience, an intervening ventilated space shall not be required.

3. Every sanitary convenience shall be under cover and so partitioned off as to secure privacy, and if for the use of females shall have a proper door and fastenings.

4. The sanitary conveniences in a factory or workshop shall be so arranged and maintained as to be conveniently accessible to all persons employed therein at all times during their employment.

5. Where persons of both sexes are employed, the conveniences for each sex shall be so placed or so screened that the interior shall not be visible, even when the door of any convenience is open, from any place where persons of the other sex have to work or pass; and, if the conveniences for one sex adjoin those for the other sex, the approaches shall be separate.

6. This order shall come into force on the 1st day of July, 1903.

7. This order may be referred to as the Sanitary Accommodation Order of 4th February, 1903.

A. AKERS DOUGLAS,
One of His Majesty's Principal
Secretaries of State.

Home Office, Whitehall,
4th February, 1903.

APPENDIX B.

From Mr. John Terry, Wharf Superintendent :—

COLLECTION OF REFUSE.

Pail-Closets.—The pail-closets now on the books number 37,225, as against 37,432 in 1903, and 37,617 in 1902. In accordance with your resolution passed in January, 1903, the wooden tubs are being gradually replaced by galvanized steel pails, and there are now about 21,000 of these in use. I find they are highly appreciated by the public, and we are often requested to supply these instead of the wooden tubs. The pails are emptied at various periods ranging from once to four times per week, depending on the locality and the number of persons using them.

There have been emptied during the year 2,602,575 pails, equal to 50,049 per week, and each pail has been emptied on an average 69·91 times during the year as against 69·7 times during 1903.

Number of Pails Collected, 14 Years ending December 31st, 1904.

Year.	Nottingham	Basford and Bulwell.	Radford and Lenton.	TOTAL.	Weekly Average.
1891	1,593,674	560,127	432,324	2,496,125	48,002
1892	1,523,965	580,061	446,687	2,550,713	49,052
1893	1,525,804	587,718	443,960	2,557,482	49,182
1894	1,559,608	605,349	445,606	2,610,563	50,203
1895	1,594,130	631,219	432,450	2,657,799	51,111
1896	1,598,814	636,951	441,126	2,676,891	51,478
1897	1,568,172	636,744	444,859	2,649,775	50,957
1898	1,542,856	638,493	468,070	2,649,419	50,950
1899	1,529,546	637,420	478,475	2,645,441	50,874
1900	1,522,549	640,976	475,195	2,638,720	50,745
1901	1,510,423	640,653	476,124	2,627,200	50,523
1902	1,496,922	638,370	481,970	2,617,262	50,332
1903	1,488,385	641,390	482,289	2,612,064	50,232
1904	1,477,526	644,031	481,018	2,602,575	50,049

We have now adopted a new method of disinfecting pails. Instead of each pail receiving a handful of chloride of lime as previously, patent water jets have been fixed up for the purpose, and the water which washes the pail carries with it in solution a quantity of carbolic acid; the disinfectant is brought in contact with all parts of the pail, and is thus much more likely to be useful than the dry sprinkling of chloride of lime.

Ashpits.—This work has not been so heavy as during the the previous two years, and the explanation is that we have now properly organized the work in the Basford and Bulwell district, which was taken over from a contractor in 1902.

During the year we have emptied 2,312 privy ashpits, 1,101 dry ashpits and 27 cesspools, from which 4,832, 1,550 and 94 loads have respectively been removed, giving a total of 6,476 loads. The totals for the three previous years were as follows :—

1901	1902	1903
4650	7933	8031

Dry Ash Bins.—There are now on the books 16,096 ash pans or tubs. (9,191 are worked from the Eastcroft Depôt, and 6,905 from the district depôts). The number at the end of 1903 was 14,242, and at the end of 1902, 12,190; thus showing an increase for the two years of 3,906.

The figures for previous years are not available, but as the increases are due chiefly to the erection of new houses, I have obtained from the City Engineer the figures as to new houses erected during the past eight years, and these show that the increases have been much heavier during the past three years than in any previous like period.

Year	1897	1898	1899	1900	1901	1902	1903	1904
Houses erected	784	900	837	871	850	1258	1630	1220

The dry ash carts have collected during the year 17,483 loads, and the pot carts 2,515 loads; a total of 19,998, or 384 per week, as against 351 per week during 1903. This increase is equivalent to two extra dry ash sets, or an additional expenditure of nearly £300 per year, and accounts for an increased expenditure of £800 in two years.

Slaughter-House Refuse.—964 loads (weighing 1,024 tons) have been collected from 54 slaughter houses. The amount received for the hire of galvanized pails for this refuse was £29 10s. 0d.

The following table shows the number of loads collected in each district during the past ten years :—

Number of Loads Collected.

	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904
NOTTINGHAM:—										
Pail-Closets	75,911	76,134	74,675	73,469	72,835	72,502	71,925	71,282	70,876	70,358
Night Ashpits	2,460	2,278	2,391	2,406	2,263	2,372	2,291	2,148	1,758	1,293
D.A. Pits and D.A. Tubs ..	8,820	9,518	10,230	11,851	13,275	14,055	15,018	11,000	11,673	11,658
Slaughter-house	975	1,037	1,021	1,034	1,023	1,058	1,123	1,060	918	964
Pot Cart	1,348	1,379	1,390	1,360	1,371	1,817	2,043	2,215	2,421	2,515
BASFORD & BULWELL:—										
Pail-Closets	30,058	30,331	30,321	30,404	30,353	30,522	30,507	30,398	30,543	30,668
Night Ashpits								1,037	2,047	2,032
D.A. Tubs								5,035	6,346	5,603
RADFORD & LENTON:—										
Pail-Closets	20,593	21,006	21,183	22,289	22,784	22,628	22,673	22,951	22,966	22,906
Night Ashpits	1,951	2,666	2,844	3,276	2,779	2,083	2,363	2,426	2,003	1,507
D.A. Tubs										1,772
TOTALS	142,116	144,349	144,055	146,089	146,683	147,037	147,943	149,552	151,551	151,276
WEEKLY AVERAGES ..	2,733	2,775	2,770	2,809	2,821	2,828	2,845	2,876	2,914	2,909

Disposal of Refuse.

	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904
No. of Wagons sent out ..	4,109	3,134	3,091	3,595	3,145	1,984	3,077	3,151	3,130	3,142
	T. C. Q.	T. C.	T. C. Q.	T. C. Q.	T. C. Q.	T. C.	T. C. Q.	T. C. Q.	T. C. Q.	T. C. Q.
Average Weight per Wagon..	7 17 2	7 18	7 19 3	7 19 1	8 1 2	8 0	8 1 2	8 2 2	8 3 0	8 2 1
No. of Boats sent out ..	359	574	514	479	592	734	633	580	613	491
	T. C. Q.	T. C.	T. C.	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 ..	32 10 0	32 10	32 17	33 6 1	33 2 2	31 10 1	29 17 2	29 3 2	29 13 3	29 17 0

Disposal of Refuse.—The disposal of nightsoil during the past year has been a comparatively easy task. The dry season has enabled farmers to cart over land which in the previous year was unapproachable on account of the heavy rain. The result has been that the supply of our nightsoil has fallen short of the demand. We have therefore been able to keep all the depôts free from fresh accumulations, and also to clear off old stocks, and thus, for the first time in a long series of years, the City is entirely free from deposits of nightsoil. Farmers have taken during the year 54,071 tons of nightsoil as follows :—By boat, 14,657 tons ; by rail, from Eastcroft 10,337 tons, from Basford 8,865 tons, and from Radford 6,314 tons ; by Traction Engine from Eastcroft and Radford, 7,048 tons ; direct to farms by drays, 6,384 tons ; and carted by farmers from Eastcroft, 466 tons. This tonnage is 787 less than in the previous year, but 6,845 more than in 1902.

With the exception of a small quantity collected at Bulwell, the whole of the dry ashes and refuse, other than manure, has been consumed in the destructors. The Eastcroft Destructor, which has been at work the whole year, has destroyed 24,764 tons, 10 cwt. 1 qr., as against 11,215 tons, for the six months 1903. Of the above quantity 3,251 tons were sent by rail from Basford.

The Radford Destructor commenced work on 17th February, and since that date has consumed 13,864 tons, 9 cwts. 3 qrs.

The following table shows the quantities of nightsoil sent out by rail and boat during the past ten years :—

The whole of the refuse received at the Eastcroft (except that from pail-closets) is now weighed, and the figures for the past three years are as follows :—

	1902	1903	1904
	Tons.	Tons.	Tons.
Dry Ashes	10,898	11,901	14,139
Wet Ashpits Refuse	1,981	1,517	1,242
Trade Refuse (General) ...	2,629	3,397	3,687
Trade Refuse (Butchers, &c.) ...	2,038	2,430	2,597
Ashes from Basford & Bulwell	1,830	4,884	3,251
Rammel from Radford ...	612	1,704	126
Totals,	19,988	25,203	25,042

Whilst dealing with the question of disposal it may be interesting to note that the following has been collected from the refuse and sold

	Tons	Cwts.	Qrs.
Solder (recovered from old tins)... ...	1	16	2
Light tins (from solder furnace)... ...	89	7	2
Heavy Iron	16	14	0
Light Iron	38	11	0
Light Hoops	29	18	1
Galvanized Scrap	17	4	0

The sale of the above realized the sum of £245 7s. 9d.

Depôts.—These are four in number, and situated as follows:—at the Eastcroft, Radford, Basford and Bulwell.

The policy of gradually improving your depôts has been continued during the year. At the Eastcroft, the old destructor has been pulled down and the site utilized as a timber and iron store, the workshops have been re-arranged, and that for the wheelwright has been enlarged. I trust also that during the present year you will see your way to erect wood working machinery, which is greatly needed in this department. The Radford depôt has been improved by the erection of a horsekeeper's house, weigh office and dray shed, and during the present year I hope to see it completed by the erection of a washing shed. At Basford and Bulwell we continue to occupy premises that are far from satisfactory, but as your new scheme has now been sanctioned by the Council, I hope that the present arrangements will soon cease to exist.

HORSES.

Total number of Horses, Dec. 31st, 1903	105
Disposed of during 1904	10
Purchased during 1904	14
Number of Horses at Eastcroft	69
,, ,, Basford	21
,, ,, Radford	13
,, ,, Bulwell	4
,, ,, Bagthorpe	2
Total number	109

The average working life of the horses disposed of was 8⅙ years, which is an extremely good record, and compares most favourably with that of the two previous years, when it was 7 and 4½ years respectively. The ten horses sold during the year realized £63 12s. 0d. while each new horse purchased cost £47.

As in the previous year, the health of the horses has been very satisfactory, there having been only one case of serious illness (that of an aged horse which ended fatally). The good health I attribute

to the extra comforts which have been provided during the past three years, which, therefore, in my opinion have been well worth the money expended upon them.

The cost of horse keep during the year has been 13/7 per horse per week. This, considering the amount of work performed by your horses, is a very reasonable sum, and compares most favourably with the cost during two previous years, when it was 14/1 and 16/9 respectively.

Rolling Stock.—This has been kept in good condition during the year, and now consists of 63 drays, 61 carts, 1 wagon, 31 railway trucks, and 7 canal boats.

Cleansing of Courts, Alleys, Passages, &c.—This is a new departure which was first tried as an experiment, but the results proved so satisfactory that it has now become a recognized part of your work.

Two men now devote the whole of their time to this work, which consists of washing out and disinfecting the closets, courts, alleys, &c., in the Meadow Platts District. The work is greatly appreciated by all visitors to the district. In my opinion, too, similar work might advantageously be undertaken in other parts of the city.

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