[Report 1894] / Medical Officer of Health, Nottingham City.

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BOROUGH OF NOTTINGHAM.

ANNUAL HEALTH REPORT

FOR

1894,

— BY —

PHILIP BOOBBYER, M.B.,

MEDICAL OFFICER OF HEALTH;
MEDICAL SUPERINTENDENT OF ISOLATION HOSPITAL.

Nottingham:

THOMAS FORMAN AND SONS, PRINTERS, SHERWOOD STREET.

BOROUGH OF NOTTINGHAM.

1894-95.

HEALTH COMMITTEE.

COUNCILLOR BRIGHT, MAYOR.

Chairman—
ALDERMAN BLACKBURN.

Vice-Chairman—
ALDERMAN PULLMAN.

ALDERMAN BENNETT
" JELLEY
COUNCILLOR S. O. ABBOTT
" G. ABBOTT
" ADAMS
" BAILEY
" BAGGALEY

COUNCILLOR BENTLEY
" FLEEMAN
" HUNTER
" MUTCH
" ROBERTS
" G. ROBINSON
" SUTTON

TO THE CHAIRMAN AND MEMBERS OF THE HEALTH COMMITTEE.

GENTLEMEN,—

The following is my Report for the year 1894, the fifth I have had the honour of laying before you.

The mortality in the borough during the year is the lowest yet recorded, being only at the rate of 16·68 per 1,000. The death-rate of England and Wales for 1894 was 16·59, also the lowest on record.

The birth-rate of Nottingham was only 28·57; the birth-rate of England and Wales was 29·6; the first is probably, the second is certainly, the lowest reliable record.

The figures for Nottingham will be scanned with the greater interest from the fact that, owing to the present very moderate estimate of population, they are probably rather in excess of the truth.

One matter of special interest, dealt with at length in the Report, is a sharp outbreak of small-pox, almost exclusively confined to a small section of the employees of one firm in the Lace Market and their friends, which occurred at the opening of the year. The ramifications of the outbreak were traced by following the movements of some cotton material which had been manipulated by a married couple suffering from small-pox. By the isolation of all persons thus followed up the outbreak was stayed. The iron small-pox hospitals which you very wisely erected in January were almost filled within three weeks of their completion with these Lace Market patients.

There has been very little cholera in our near neighbourhood, or indeed in Western Europe, during the past year, and this

disease is now apparently retiring once more to Eastern Europe and Asia.

There is nothing very special to note concerning any of the other zymotic diseases, excepting measles, which caused no less than 134 deaths. This number exceeds any previous annual record since 1886, when the total was 175. To give some idea of the destructiveness of the disease, I may mention that it caused a larger number of deaths in Nottingham during 1894 than did scarlet fever, enteric fever, and diphtheria combined.

Towards the end of the year I was instructed to prepare a report upon the conservancy and water-carriage systems of sewage disposal in Nottingham and other large towns in the United Kingdom. I therefore issued a comprehensive circular inquiry to more than 100 towns, with a result which I have embodied in a special report, as desired by you. This report goes to show that dry or conservancy systems, though still existing, are almost universally condemned, and that water-carriage is rapidly taking their place. The highly offensive and too often dangerous nuisance arising from the deposit and detention of excremental matter in the near neighbourhood of dwellings, as in the dry systems, is obviated by water-carriage, and thus one fruitful source of infection, especially in the case of such diseases as enteric fever and infective diarrhœa, is almost entirely done away with. In order to understand all that the dry systems mean in poor and populous neighbourhoods, it is only necessary to visit some of the poorer courts and alleys of our larger conservancy towns. The warmest advocates of such systems would, I think, hesitate to recommend their continuance after such an experience as this would afford them.

A somewhat unusually large number of insanitary houses have been condemned during the past year. The extreme state of dilapidation into which much of the older and poorer house property of the borough has lately been allowed to fall, is doubtless in great measure due to the lowering of rents in many districts.

PHILIP BOOBBYER.

TABLE I.

Nottingham. Population, Inhabited Houses, Marriages, Births, and Deaths for 1894, and for the 10 years 1884-93.

	Estimated Population.	Inhabited Houses.	† Marriages.	Births.	Deaths.			Deaths in Public Institutions.
					Total at all ages.	Under One Year.	Under Five Years	
1894	223,584	...	1635	6373	3728	1108	1609	547
1893	220,551	...	1638	6642	4061	1145	1569	610
1892	217,550	...	1672	6315	3961	1058	1613	561
1891	214,606	46,612	1615	6344	4162	1078	1646	540
1890	211,984	45,580	1549	6205	4031	985	1484	430
1889	237,812	...	1422	6636	3985	1216	1816	410
1888	230,912	...	1405	6879	3916	1039	1605	430
1887	235,000	...	1623	7395	4130	1265	1833	432
1886	233,000	47,834	1548	7820	4411	1406	2102	417
1885	230,000	..	1742	7932	4162	1256	1898	389
1884	218,950	...	1923	8329	4780	1632	2405	386
Average of the *ten* years 1884-93.	225,036	...	1613	7049	4159	1208	1797	460

† The returns of Marriages do not include those in Bulwell, Basford or Wilford.

Population at Census 1881—186,575; at Census of 1891—213,877.

Average number of persons in each house, at Census 1881—4.8; at Census 1891—4·6.

Area of Borough—10,935 acres.

Average number of persons to an acre—19·7.

TABLE II.

Nottingham. Annual Rates for 1894 and the Ten years 1884-93.

	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.
1894	28·6	16·7	174	336	432	147
1893	30·2	18·4	172	282	386	150
1892	29·4	18·4	167	267	407	141
1891	29·9	19·5	169	259	395	129
1890	29·2	19·0	158	244	368	106
1889	27·9	16·7	182	304	454	117
1888	29·9	17·3	151	264	419	110
1887	31·5	17·6	170	306	444	105
1886	33·6	18·9	181	319	477	95
1885	34·6	18·2	158	302	456	93
1884	36·7	21·1	196	341	503	81
Average of the *ten* years 1884-93.	31·3	18·5	170	288	431	113

TABLE III.

Nottingham.—Deaths Registered from all causes during the year 1894.

NOTE.—The Deaths of Non-Residents occurring in Public Institutions situated in the District are excluded, and the Deaths of Residents occurring in Public Institutions situated beyond the limits of the District are included.

	AGES.												Totals.			
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and upwards.	55 to 60*	1894	1893	1892	1891
I. SPECIFIC FEBRILE, OR ZYMOTIC DISEASES ..	240	204	52	36	29	28	9	12	13	5	2	6	630	781	636	689
II. PARASITIC DISEASES ..	5	..	2	..	..	1	..	..	..	..	..	..	8	10	6	9
III. DIETIC DISEASES	1	1	..	..	2	3	3	2	2	..	..	..	14	15	16	20
IV. CONSTITUTIONAL DISEASES	64	64	36	83	82	97	93	77	48	9	2	40	655	672	676	705
V. DEVELOPMENTAL DISEASES	194	2	..	..	..	..	..	3	32	87	30	..	348	377	351	349
VI. LOCAL DISEASES	381	202	60	58	89	124	159	232	262	148	17	87	1732	1789	1913	1973
VII. DEATHS FROM VIOLENCE ..	30	16	7	6	8	14	11	11	7	4	1	5	115	149	129	122
VIII. DEATHS FROM ILL-DEFINED and NOT SPECIFIED CAUSES	193	12	1	1	3	1	3	5	5	1	1	1	226	268	234	298
TOTALS	1108	501	158	184	213	268	278	342	369	254	53	145	3728	4061	3961	4162
1.—Specific Febrile, or Zymotic Diseases.																
1.—MIASMATIC DISEASES.																
Small-pox { Vaccinated ..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..
Small-pox { Unvaccinated ..	..	..	1	..	..	..	..	..	..	..	..	..	1	4	..	..
Small-pox { No Statement ..	..	1	1	..	..	..	..	..	..	..	..	..	2	..	..	..
Measles	36	88	9	1	..	..	..	..	..	..	..	..	134	25	118	110
Scarlet Fever	1	23	22	1	1	1	..	..	..	..	..	..	49	83	43	28
Typhus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Whooping Cough	59	58	2	..	..	..	..	..	..	..	..	..	119	59	117	121
Diphtheria	3	13	4	1	..	..	..	..	1	..	..	..	22	15	30	21
Simple Continued and Ill-defined Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..
Enteric or Typhoid Fever ..	..	1	11	21	8	10	5	2	3	..	..	2	61	68	36	70
Influenza	1	..	1	1	3	4	2	2	4	1	1	1	20	69	68	106
Chicken Pox	1	..	..	..	..	..	..	..	..	..	..	..	1	2	1	..
2.—DIARRHŒAL DISEASES.																
Simple Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	..
Diarrhœa, Dysentery	121	19	1	..	..	1	1	2	2	4	1	..	152	361	158	180
3.—MALARIAL DISEASES.																
Remittent Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
Ague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
4.—ZOOGENOUS DISEASES.																
Cowpox and effects of Vaccination	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Diseases (*e.g.* Hydrophobia, Glanders, Splenic Fever) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
5.—VENEREAL DISEASES.																
Syphilis	12	1	..	..	..	2	..	..	..	..	..	..	15	30	18	17
Gonorrhœa, Stricture of Urethra	..	..	..	..	1	2	1	4	1	..	..	1	9	1	3	3

* By filling in this column the Statistics of Table III. will be made comparable with those of the Weekly and Quarterly Returns of the Registrar-General, and also available for the Reports required by the Local Government Board.

	AGES.												Totals.			
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and upwards.	55 to 60*	1894	1893	1892	1891
6.—Septic Diseases.																
Erysipelas	3	..	..	1	1	..	..	1	2	..	..	1	8	21	10	9
Pyæmia, Septicæmia	3	..	..	..	3	2	..	1	..	..	..	1	9	10	11	7
Puerperal Fever	..	..	..	10	12	5	..	..	..	..	..	..	27	29	24	17
II.—Parasitic Diseases.																
Thrush, & other Diseases	5	..	2	..	..	..	..	..	..	..	..	..	7	8	3	9
Worms, Hydatids, &c.	..	..	..	..	..	1	..	..	..	..	..	..	1	2	3	..
III.—Dietic Diseases.																
Want of Breast Milk, Starvation	1	1	..	..	..	..	..	..	..	..	..	..	2	3	4	10
Scurvy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chronic Alcoholism	..	..	..	..	1	2	3	2	2	..	..	..	10	10	10	8
Delirium Tremens	..	..	..	..	1	1	..	..	..	..	..	..	2	2	2	2
IV.—Constitutional Diseases.																
Rheumatic Fever, &c.	..	..	3	7	3	3	5	..	2	..	..	..	23	19	16	21
Rheumatism	1	..	..	..	..	1	2	2	..	1	1	..	8	14	10	6
Gout	..	..	..	..	..	..	..	..	1	..	..	..	1	3	4	3
Rickets	13	11	..	..	..	..	..	..	..	..	..	..	24	15	14	11
Cancer, Malignant Disease	..	3	1	4	4	22	45	44	35	8	1	22	167	142	180	161
Tabes Mesenterica	24	7	..	..	..	..	..	..	..	..	..	..	31	44	41	45
Tubercular Meningitis, Hydrocephalus	16	27	8	..	1	..	..	1	..	..	..	1	53	49	54	51
Phthisis	8	12	20	66	71	67	36	22	8	..	..	18	310	305	306	360
Other forms of Tuberculosis, Scrofula	2	4	1	3	..	..	1	..	..	..	..	..	11	51	16	14
Purpura, Hæmorrhagic Diathesis	..	..	..	1	..	1	..	..	..	..	..	..	2	6	..	3
Anæmia, Chlorosis, Leucocythæmia	..	..	2	1	3	..	2	1	1	..	..	1	10	7	14	11
Glycosuria, Diabetes Mellitus	..	..	1	1	..	3	2	7	1	..	..	4	15	15	21	19
Other Constitutional Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
V.—Developmental Diseases.																
Premature Birth	153	..	..	..	..	..	..	..	..	..	..	..	153	156	152	135
Atelectasis	3	1	..	..	..	..	..	..	..	..	..	..	4	1	7	1
Congenital Malformations	38	1	..	..	..	..	..	..	..	..	..	..	39	23	15	12
Old Age	..	..	..	..	..	..	..	3	32	87	30	..	152	197	177	201
VI.—Local Diseases.																
I.—Diseases of Nervous System																
Inflammation of Brain or Membranes	14	16	7	3	1	1	1	4	4	..	..	3	51	48	51	54
Apoplexy, Softening of Brain, Hemiplegia, Brain Paralysis	1	1	2	2	5	14	21	43	59	35	2	17	185	207	210	204
Insanity, General Paralysis of the Insane	..	..	..	1	3	4	1	3	2	1	..	3	15	12	15	20
Epilepsy	1	..	3	3	3	2	2	2	2	..	..	..	18	11	12	14
Convulsions	94	15	2	..	..	..	..	..	..	..	..	..	111	117	123	133
Laryngismus Stridulus (Spasm of Glottis)	1	..	..	..	..	..	..	..	..	..	..	..	1	..	4	4
Disease of Spinal Cord, Paraplegia, Paralysis Agitans	..	..	2	3	2	4	1	3	..	..	..	1	15	12	18	8
Other Diseases of Nervous System	..	..	..	1	1	..	..	..	..	..	..	..	2	3	8	1

	AGES.												Totals.			
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and upwards.	55 to 60*	1894	1893	1892	1891
2.—Organs of Special Sense.																
(*e.g.*, of Ear, Eye, Nose).. ..	5	..	..	..	1	1	..	..	..	..	..	..	7	5	9	4
3.—Circulatory System.																
Pericarditis	..	..	..	..	1	..	..	..	..	..	..	..	1	1	4	1
Acute Endocarditis	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	7
Valvular Diseases of Heart ..	..	..	9	6	14	20	23	25	20	9	..	9	126	106	111	134
Other Diseases of Heart.. ..	1	..	..	2	5	4	12	33	55	27	5	14	144	128	143	103
Aneurism	..	..	..	..	..	1	1	..	2	..	..	..	4	7	15	13
Embolism, Thrombosis	..	..	..	..	..	..	..	3	..	4	..	..	7	9	4	13
Other Diseases of Blood Vessels	..	..	..	..	..	..	2	1	3	1	..	..	7	13	2	1
4.—Respiratory System.																
Laryngitis..	3	3	4	..	..	..	..	..	..	1	..	..	11	16	3	8
Croup	2	9	1	..	..	..	..	..	..	..	..	..	12	12	12	4
Emphysema, Asthma	..	..	..	..	..	1	4	4	2	1	..	1	12	10	7	7
Bronchitis..	141	76	4	2	4	11	25	55	64	45	4	11	431	425	524	619
Pneumonia	58	63	9	13	10	15	10	16	12	6	3	6	215	253	298	286
Pleurisy	..	..	1	..	..	1	..	1	..	..	..	1	3	13	12	20
Other Diseases of Respiratory System	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..
5.—Digestive System.																
Dentition	12	8	1	..	..	..	..	..	..	..	..	..	21	15	32	12
Sore Throat, Quinsy	1	..	..	..	..	..	..	..	..	..	..	..	1	7	..	1
Diseases of Stomach	20	..	1	1	4	1	2	3	1	..	..	1	33	43	23	23
Enteritis	8	4	1	1	..	..	3	..	1	..	..	..	18	9	10	15
Obstructive Diseases of Intestine	3	..	1	1	2	3	2	5	5	7	1	..	30	34	28	30
Peritonitis..	1	2	2	3	6	1	3	1	3	..	..	1	22	24	12	23
Ascites	..	..	..	1	..	..	..	..	..	..	..	..	1	1	2	2
Cirrhosis of Liver	..	..	..	..	1	9	11	5	5	2	..	3	33	36	25	37
Jaundice and other Diseases of Liver	4	2	..	..	..	..	8	3	4	3	..	4	24	21	14	10
Other Diseases of Digestive System	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3	..
6.—Lymphatic System.																
(*e.g.*, of Lymphatics and of Spleen)	..	..	1	..	..	1	..	..	..	1	..	..	3	3	1	3
7.—Gland-like Organs of Uncertain Use.																
(*e.g.*, Bronchocele, Addison's Disease)	..	..	..	1	1	1	..	..	..	..	..	..	3	5	6	2
Myxœdema	..	..	..	..	..	..	..	1	..	..	..	..	1	2	..	..
8.—Urinary System.																
Nephritis	1	2	4	1	4	4	9	5	6	..	1	4	37	34	31	44
Bright's Disease, Albuminuria ..	1	..	2	2	7	9	14	12	7	2	1	7	57	45	54	43
Disease of Bladder or of Prostrate	..	..	..	..	..	2	..	2	4	1	..	1	9	22	23	16
Other Diseases of the Urinary System	..	..	1	1	..	..	..	..	..	1	..	..	3	2	3	2

	AGES.												Totals.			
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and upwards	55 to 60*	1894	1893	1892	1891
9.—Reproductive System.																
A. *Organs of Generation.*																
Male Organs	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Female Organs	..	..	..	2	3	4	2	2	..	..	..	..	13	18	19	11
B. *Of Parturition.*																
Abortion, Miscarriage	..	..	..	1	..	2	..	..	..	..	..	..	3	7	7	7
Puerperal Convulsions	..	..	..	..	1	..	..	..	..	..	..	..	1	1	2	..
Placenta prævia, Flooding	..	..	..	1	..	6	..	..	..	..	..	..	7	3	1	5
Other Accidents of Child Birth	..	..	..	1	5	2	..	..	..	..	..	..	8	5	10	13
10.—Bones and Joints.																
Caries, Necrosis	..	..	..	2	..	2	3	4	..	2	..	1	1	..	..	15	13	12	12
Arthritis, Ostitis, Periostitis	....	1	..	..	2	1	..	..	..	..	..	..	..	4	4	1	3
Other Diseases of Bones & Joints		..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	1
11.—Integumentary System.																
Carbuncle, Phlegmon	..	..	..	1	..	..	..	..	..	..	..	..	..	1	13	2	2
Other Diseases of Integumentary System	..	..	...	6	..	..	..	..	..	..	..	..	..	6	9	3	6
VII.—Deaths from Violence.																
1.—Accident or Negligence.																
Fractures and Contusions	..	1	3	3	1	2	5	4	7	5	2	..	3	33	55	45	30
Gunshot Wounds	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..
Cut, Stab	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	2	2
Burn, Scald	..	..	..	8	..	..	1	3	..	..	..	1	..	13	15	20	21
Poison	..	..	..	1	2	..	..	1	2	1	..	..	1	7	1	3	7
Drowning	..	..	..	..	1	2	1	1	..	1	1	..	1	7	12	12	12
Suffocation	..	..	..	20	1	..	..	..	..	..	..	1	..	22	30	14	14
Otherwise	..	..	..	5	..	..	..	..	..	..	..	..	1	5	4	3	1
2.—Homicide.																
Manslaughter	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	1	1
Murder	..	..	..	3	1	..	..	..	..	..	..	1	..	5	2	5	4
3.—Suicide.																
Gunshot Wounds	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	2	1
Cut, Stab	..	..	..	..	..	..	..	1	1	1	1	..	..	..	4	3	6
Poison	..	..	..	..	..	1	2	1	..	..	..	..	..	..	4	4	2
Drowning	..	..	..	..	..	..	..	1	1	..	..	..	..	..	2	3	2	2
Hanging	..	..	..	..	..	1	2	1	1	1	..	..	..	..	7	15	11	9
Otherwise	..	..	..	..	..	..	..	1	..	..	..	1	..	..	2	..	2	1
4.—Execution.																
Hanging	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..
VIII.—Ill-Defined Causes.																
Dropsy	..	..	..	..	..	..	..	..	1	..	1	..	..	2	2	..	5
Debility, Atrophy, Inanition	..	164	10	1	..	1	..	..	..	..	..	..	..	176	194	153	182
Mortification	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Tumour	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..
Abscess	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2
Hæmorrhage	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	1
Sudden Death (cause not ascertained)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Causes not specified (Ill-defined)		1	..	..	1	..	..	..	..	1	..	..	..	3	6	4	10
Uncertified	..	..	..	28	2	..	..	2	1	3	4	4	..	1	1	45	61	75	95

SUMMARY OF TABLE III.

	No. of Deaths.			
	1894	1893	1892	1891
I.—Specific Febrile, or Zymotic Diseases.				
1. Miasmatic Diseases	410	326	414	456
2. Diarrhœal „	152	363	159	180
3. Malarial „	..	1	..	..
4. Zoogenous „	..	..	..	..
5. Venereal „	24	31	21	20
6. Septic „	44	60	45	33
II.—Parasitic Diseases	8	10	6	9
III.—Dietic Diseases	14	15	16	20
IV.—Constitutional Diseases	655	672	676	705
V.—Developmental Diseases	348	377	351	349
VI.—Local Diseases—				
1. Diseases of Nervous System	398	410	437	438
2. Diseases of Organs of Special Sense	7	5	9	4
3. Diseases of Circulatory System	289	265	281	272
4. Diseases of Respiratory System	684	729	859	914
5. Diseases of Digestive System	183	193	149	153
6. Diseases of Lymphatic System	3	3	1	3
7. Diseases of Gland-like Organs of uncertain use	4	5	6	2
8. Diseases of Urinary System	106	103	111	105
9. Diseases of Reproductive System	..			
(*a*). Diseases of Organs of Generation ..	13	18	20	11
(*b*). Diseases of Parturition	19	16	20	25
10. Diseases of Bones and Joints	19	20	14	16
11. Diseases of Integumentary System	7	22	5	8
VII.—Violence—				
1. Accident or Negligence	88	119	99	87
2. Homicide	6	2	6	6
3. Suicide	20	28	24	21
4. Execution	1	..	..	..
VIII.—Ill-Defined and Not Specified Causes ..	226	268	234	295
TOTAL	3728	4061	3961	4162

TABLE IV.

Nottingham, 1894. 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 Zymotic Diseases	541	2·42	145
2. Pulmonary Diseases	684	3·0	183
3. Tubercular Diseases	405	1·8	109
B. Infants under 1 year of Age.	Deaths.	Deaths per 1000 *Births.*	Deaths per 1000 *Deaths under 1 year.*
4. Wasting Diseases ...	318	49·9	287
5. Convulsive Diseases	136	21·3	123

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 Hydrocephalus, Infantile Meningitis, Convulsions, and Dentition.

TABLE V.

Nottingham. Deaths from the Principal Zymotic Diseases in the ten years 1884-93, and in the Year 1894.

Disease.	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	Ten years, 1884-93.		1894.	
											Annual Average.	Proportion of Deaths to 1000 Deaths.	Deaths.	Proportion of Deaths to 1000 Deaths.
Small-pox	..	2	2	..	12	..	..	..	..	4	2·0	0·48	4	1·1
Measles	145	112	175	58	115	86	52	110	118	44	102·5	24·6	134	35·9
Scarlet Fever	37	31	13	22	25	32	33	28	43	83	34·7	8·3	49	13·1
Diphtheria	39	28	10	10	34	11	16	21	30	15	21·3	5·1	22	5·9
Whooping Cough	129	116	90	153	81	153	47	121	117	59	106·4	25·6	119	31·9
Fevers. Typhus	..	..	..	..	..	..	..	..	..	..	0·0	0·0	..	..
Fevers. Enteric	60	42	61	74	89	66	58	70	36	68	62·4	15·0	61	16·3
Fevers. Simple Continued ..	7	2	2	2	1	2	4	..	..	1	2·1	0·50	..	..
Diarrhœa	377	163	328	315	157	263	185	180	158	361	248·7	59·8	152	40·8
Total	794	496	681	634	514	613	395	530	503	616	580·1	139·5	541	145·1
Total, London	13,629	11,261	11,121	12,684	10,803	9,709	12,279	9,675	11,983	13,223	11,636	126·1	11,549	149·7
Total, England and Wales	71,762	57,726	62,859	64,676	50,684	61,027	59,698	53,221	56,032	73,499	61,118	110·9	52,771	105·9

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

I. NOTTINGHAM.

In five yearly periods, 1856—1885, and in single subsequent years.

	Birth Rate.	Death Rate.	Infantile Death Rate.	DEATH RATE FROM								
				7 Prin. Zymotic Diseases.	Small Pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	"Fever."	Diarrhœa.	Phthisis and other tubercular 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	0·13	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	33 6	18·9	180	2·92	0·01	0·75	0·06	0·04	0·39	0·27	1·41	1·61
1887	31·4	17·6	170	2·55	0·00	0·24	0·10	0·03	0·66	0·32	1·30	1·43
1888	29·9	17·3	151	2·08	0·05	0·50	0·11	0·14	0·34	0·40	0·54	1·42
1889	27·9	16·7	182	2·57	0·00	0·36	0·13	0·04	0·64	0·28	1·10	1 28
1890	29·2	19 0	158	1 86	0·00	0·24	0·15	0 07	0·22	0·29	0·87	1·88
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

II. ENGLAND & WALES.

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

1858—1860	34·3	22·2	153	4·03	0·22	0·48	0·89	0·37	0·49	0·79	0·78	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	1·59
1892	30·5	18·9	148	2·78	0·01	0·46	0·19	0·22	0·45	0·14	0·50	1·46
1893	30·8	19·2	159	3·16	0·05	0·37	0·23	0·31	0·34	0·23	0·95	1·88

Principal Vital Statistics of the 33 Greater English Towns for 1894 (taken from the Registrar-General's Quarterly Reports and Annual Summary). Populations revised by Census Returns of 1891.

	Census Population 1891.	Birth Rate.	Recorded Death Rate.	Corrected Death Rate.	Death Rates at Age Periods.			Death Rate from seven chief zymotic diseases.	Percentage of uncertified Deaths.
					Deaths under one ear 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	29,001,018	29·6	16·6	16·6	137	8·8	62·3	1·76	2·5
33 Large Towns..	10,188,449	30·7	18·1	19·6	152	10·5	64·6	2·44	1·7
London	4,231,431	30·1	17·8	18·9	143	10·4	61·9	2·66	0·8
Liverpool ..	517,951	35·4	23·8	26·5	179	15·1	68·7	3·41	3·5
Manchester ..	505,343	32·0	20·4	23·1	160	12·4	77·3	2·38	1·3
Birmingham ..	429,171	31·7	18·6	20·5	163	10·6	66·0	2·50	5·1
Leeds	367,506	32·2	17·9	19·8	155	10·0	68·2	2·00	1·0
Sheffield	324,243	33·4	17·8	19·8	157	9·9	65·5	2·27	3·6
Bristol	221,665	28·2	17·3	18·0	150	9·1	66·5	2·04	1·3
West Ham ..	217,113	34·0	16·2	17·4	138	9·4	61·9	3·19	4·2
Bradford	216,361	26 7	17·0	19·5	145	9·9	71·3	1·76	0·9
Nottingham ..	213,877	28·6	17·2	18·5	174	9 1	59·8	2·42	1·3
Hull	199,991	32·4	17·4	18·2	142	9·7	65·9	1·76	4·2
Salford	198,136	34·3	21·0	23·6	174	12·5	74·0	3·25	2·8
Newcastle ..	186,345	31·0	18·3	19·9	157	10·7	68·9	2·16	1·0
Portsmouth ..	159,255	27·6	15·1	15·5	131	8·2	56·1	1·95	0·8
Leicester.. ..	142,051	31·5	14·6	15·9	162	7·1	52·2	1·94	3·1
Oldham	131,463	27·2	18·6	21·3	161	11·5	70·6	1·84	0 8
Sunderland ..	130,921	35·1	20·8	21·8	167	12·2	66·6	3·06	1·0
Cardiff	128,849	34·4	16·2	18·1	141	9·4	59·1	1·94	1·2
Blackburn ..	120,064	28·8	17·9	20·1	169	10·0	74·8	1·60	3·6
Brighton	115,402	25·8	16·4	16·6	138	8·7	59·2	1·21	1·4
Bolton	115,002	31·5	18·8	21·3	162	10·9	72·7	1·82	0·9
Preston	107,573	32·1	20·8	22·9	217	10·3	76·3	2·61	4·8
Croydon	106,152	25·0	13 2	13·7	121	6·7	57·5	1·54	—
Norwich	100,964	29·8	18·7	17·9	164	8·8	67·1	1·51	1·7
Birkenhead ..	99,184	30·6	18·1	19·8	143	10·6	72·0	2·64	0·5
Huddersfield ..	95,422	20·2	15·8	18·4	160	9·3	65·7	1·45	3·4
Derby	94,146	29 3	15·0	16·6	123	8·1	70·4	1·62	0·7
Swansea	92,344	32·3	17·0	18·6	163	9·1	65 3	1·77	1·1
Burnley	90,589	32·2	18·7	21·5	170	10·9	69·2	2·46	1·8
Gateshead ..	88,588	34·2	17·7	18·9	152	9·9	65·9	2·35	0·9
Plymouth ..	84,179	28 8	18·3	17·8	169	9·1	58·9	1·59	1·2
Halifax	82,864	23·1	16·5	18·3	135	9·3	73·0	0·87	4·9
Wolverhampton..	82,620	34·1	20·7	21·7	166	11·5	69·1	3·23	0·7

GENERAL VITAL STATISTICS.

Population.—Our estimate of the population of Nottingham at the middle of 1894, based on the assumption that it has continued to increase since the 1891 census at the same rate as during the preceding decennium, amounts to 223,584. As I have before pointed out, this figure is probably below the truth, for there has been every indication of a more rapid increase during the past few years. Still, the above criterion being adopted by the Registrar-General and other statistical authorities, it is certainly best, if only for the sake of uniformity of data, to adhere to it now.

The population of Nottingham, estimated in this way, will be made up of 102,070 males and 121,514 females, provided the ratio of the sexes remains the same as at the census of 1891.

According to this estimate, Nottingham still stands tenth on the list of the 33 great towns arranged in order of magnitude; Bradford stands next above it, with an estimated population of 223,985 (or only 401 more), and Hull next below, with an estimated population of 212,679. There are now no less than seven towns in England with estimated populations of between 200,000 and 240,000. The six towns above these, including London, range from 338,316 (Sheffield) upwards.

Marriages.—It will be remembered that no separate returns of marriages are made for those parts of the Registration Sub-Districts of Basford, Bulwell, and Wilford, which are situated within the borough. The population of these portions amounts to about 36,000 persons, or between a sixth and a seventh of the whole population of the town.

The number of marriages registered in the four sub-districts of the Nottingham Registration District during 1894 was 1,635, which is three less than in 1893 and 37 less than in 1892.

The numbers in each of the four quarters of the past year were :—1st quarter, 378; 2nd, 360; 3rd, 439; 4th, 458. The largest annual number of marriages registered in the Nottingham Registration District in recent years was 2,264 in 1882, the smallest 1,405 in 1888. The annual average of the past 10 years has been 1,613.

Births.—The births registered in Nottingham during 1894 numbered 6,373. The number during 1893 was 6,642, and the average annual number of the past 10 years has been 7,049. The birth-rate per 1,000 of population during the past year was 28·6, the lowest reliable record yet made. The rate for 1893 was 30·2, and the average rate of the past decennium 31·2. There were 3,235 male births, and 3,138 female; 212 of the male and 219 of the female, or 6·8% of all, were illegitimate.

On comparing the other large towns with Nottingham, we find that only eight have lower birth-rates for the past year, whereas 24 have higher rates. London (30·1), Manchester (32·0), Liverpool (35·4), Birmingham (31·7), Leeds (32·2) and Sheffield (35·4) have all higher rates, these being the first six towns of the country. The towns having the lowest rates are Bristol (28·2), Bradford (26·7), Portsmouth (27·6), Oldham (27·2), Brighton (25·8), Croydon (25·0), Huddersfield (20·2), Halifax (23·1), arranged according to the magnitude of their populations from above downwards.

The average rate of the 33 greater towns taken together was 30·7, and that of England and Wales as a whole 29·6. This last rate is the lowest yet recorded, and is 2·0 per 1,000 below the mean rate of the 10 years, 1884—1893.

The illegitimate births of England and Wales amount to about 4·2% of the total number registered.

of Nottingham people

Deaths.—The deaths registered in Nottingham during 1894 numbered 3,728. This number corresponds to a recorded rate per 1,000 of 16·7. The total number of deaths registered in the town was 3,844, corresponding to a rate of 17·2. Had the age

and sex constitution of the Nottingham population been identical with that of England and Wales, and the same rate of mortality been maintained at each age period, the death-rate would have been 18·5 instead of the recorded rate of 17·2.

The recorded death-rate among males in Nottingham during 1894 was 18·7, that among females 15·7, presuming the sexual ratio in the population to be the same as at the census in 1891.

Nottingham now occupies the 14th place from the lowest on the list of the 33 great towns classed according to their death-rates, its place being identical whether recorded or corrected rates be taken. The lowest corrected rate is that of Croydon at 13·75, the highest that of Liverpool at 26·46. The death-rate of England and Wales was 16·59, that of the large towns 19·54, and that of London 18·93, during the past year.

The comparative figures of the Registrar-General represent the mortality of Nottingham during 1894 by 1,118, that of London by 1,141, and that of the 33 greater towns taken together by 1,181, against a standard thousand in England and Wales as a whole.

The deaths under 1 year to every 1,000 births in Nottingham numbered 174. This is 2 per 1,000 higher than in 1893, and 4 per 1,000 higher than the average rate of the past ten years. No less than 29 of the towns have lower infant rates than Nottingham. This rate in London was 143, and the mean of the 33 towns was 152.

The rate of mortality among persons from 1 to 60 years was equal to 9·1 per 1,000 living. Only six of the greater towns had lesser rates under this heading, and 25 had higher rates. That of London was 10·4, and that of the 33 towns together 10·5.

The deaths among persons aged 60 and upwards were at the rate of 9·1 per 1,000. Only five of the greater towns had lower mortality among aged persons than this.

The inquest cases of the borough numbered 230, and were equal to 6% of the total deaths. The corresponding rate in London was 8·6, and that in the 33 towns 7 3.

The deaths from violence were at the rate of 0·56 per 1,000 living, against 0·73 in London and 0·68 in the 33 towns.

The uncertified deaths amounted to 1·3% of all, as compared with 0·8 in London and 1·7 in the 33 towns. The uncertified deaths of England and Wales were 2·5% of all during the year 1894.

Registration Sub-Districts. — These sub-districts still remain unchanged, although it would certainly be more fitting in every way to include within the geographical sub-division of the Nottingham district those parts of Basford, Bulwell, and Wilford which are situated within the borough boundaries.

It will be seen in the accompanying table that I have given only the populations discovered in each of the sub-divisions at the census of 1881 and 1891. The variations which these populations have undergone from time to time through fluctuations in local trade, spasmodic building operations, and the like causes, render it impossible to adopt any exact and uniform method of calculating the intercensual population figures in detail. I have therefore given only the census numbers, and calculated the several rates upon the basis of the last enumeration. By adhering to this plan I have practically insured against the unsatisfactory error of making out too good a bill of health for any district, though certainly in some cases causing the local rates of sickness and mortality to appear unduly high.

The actual numbers of births registered in each of the divisions, except N.E., were less than in 1893, and the birth-rates calculated as above were as follows :—Bulwell, 40·4 ; Basford, 31·7 ; N.W., 27·5 ; N.E., 29·2 ; S.W., 27·4 ; S.E., 32·0 ; Wilford, 36·3. The increase in the number of births in N.E. is probably an indication that its population, which had declined between 1881 and 1891, is now once more advancing. It is difficult to account for the very marked decline in the number of births registered in Bulwell as compared with those of 1893.

NOTTINGHAM SUB-DISTRICTS.

Summary of Statistics for 1894.

	Census Population		Births.	Birth Rate.	Deaths.			Death Rate.			DEATHS FROM										Notified Cases of			
	1881.	1891.			Total.	Under 1 Year.	From 7 prin. Zymotic Diseases.	Total per 1000 of Population.	Under 1 Year per 1000 Births.	From 7 prin. Zymotic dis. pr 1000 pop.	Small Pox	Measles.	Scarlet Fever	Diphtheria.	Whooping Cough.	"Fever."	Diarrhœa.	Influenza.	Cancer.	Phthisis.	Small Pox.	Scarlet Fever	Diphtheria.	Enteric Fever.
Bulwell ..	8,575	11,400	461	40·4	188	88	24	16·5	191	2·1	..	7	9	1	1	3	3	1	3	14	..	199	4	23
Basford ..	18,137	22,900	699	31·7	373	117	*73	16·3	167	3·2	4	13	29	1	11	9	6	1	5	17	6	149	6	34
N.W. ..	39,574	54,885	1512	27·5	760	228	104	13·8	151	1·9	..	20	3	4	25	12	40	2	25	60	3	212	18	112
N.E. ..	53,911	52,749	1541	29·2	1136	296	132	21·5	192	2·5	..	43	5	4	40	10	30	7	50	98	20	301	8	65
S.W. ..	25,483	28,558	784	27·4	606	126	75	21·2	161	2·6	..	2	2	5	16	23	27	2	31	31	1	107	12	60
S.E. ..	40,295	40,886	1314	32·0	707	238	124	17·3	181	3·0	..	49	2	4	20	4	42	6	34	43	29	180	7	66
Wilford ..	597	2,064	75	36·3	36	16	9	17·4	213	4·3	..	..	..	1	4	1	3	..	..	1	..	16	1	3
The whole Borough ..	186,572	213,442	6386	28·6	† 3805	1109	541	17·2	174	2·4	4	134	50	20	117	62	151	19	148	264	59	1164	56	363

* This total includes the deaths in Bagthorpe Isolation Hospital. † Including deaths of non-residents, in Public Institutions.

The death-rates of the several sub-districts come out as follows :—Bulwell, 16·5 ; Basford, 16·3 ; N.W., 13·8 ; N.E., 21·5 ; S.W., 21·2 ; S.E., 17·3 ; Wilford, 17·4. The diminished death-rate of Bulwell does not indicate a saving of infant life, for the deaths of infants were almost as numerous as last year, though the number of births exhibits a decline of more than 12°/₀. The extremely low death-rate in N.W. probably implies an increase of population since the census, for which, as I have stated, no allowance is made. The highest infant death-rates per 1,000 births are those of Bulwell (191), N.E. (192), S.E. (181), and Wilford (213), though the last, from the smallness of the population, has little significance. Measles, scarlet fever, and whooping-cough have in all cases been chiefly responsible for excessive mortality under this heading. The zymotic rates, ranging from 1·9 in N.W. to 4·3 in Wilford, have also been swelled by deaths from measles and whooping-cough, which caused 251 out of 541 deaths from the seven principal diseases of this group, or 46°/₀ of all. The zymotic deaths in Basford, it must be borne in mind, include those in the Borough Isolation Hospital.

The deaths from diarrhœa exhibited an extraordinary decline as compared with the record of 1893. The latter, it will be remembered, was described as a typical diarrhœa year, with an exceptionally warm and dry summer and autumn. The diarrhœa season of 1894, on the contrary, was characterized by low temperature and high comparative rainfall. The total deaths from this cause were 151 only, against 358 in 1893, and the diminution of mortality was shared by all the divisions except Wilford, but here, as I have before pointed out, the figures are too small to be of any importance. I shall have something further to say of the special incidence of diarrhœa upon the damp and porous flats of the borough when discussing the disease under its proper heading.

GENERAL REPORT.

Zymotic Diseases. –The total amount of sickness and fatality from the seven principal diseases of this class, in Nottingham during 1894, exhibits a marked decrease as compared with that of 1893. The total number of deaths registered (without correction) was 541, against 616 in the previous year; the annual average of the past 10 years has been 580. The zymotic death-rate for 1894, per 1,000 living, amounts to 2·42; that of 1893 was 2·62; and that of the past decennium 2·68.

It will be noticed that the Registrar-General makes the zymotic rate of the town somewhat lower (0·9) than 2.42, and I have given his figures when comparing the local rate with others elsewhere, but I have reason to believe that my own higher figure is the more correct.

According to the Registrar-General's annual summary, there were 12 of the larger towns with higher zymotic death-rates than Nottingham during 1894. These rates ranged upwards from 0·87 in Halifax, 1·21 in Brighton, and 1·45 in Huddersfield, to 3·06 in Sunderland, 3·19 in West Ham, 3·23 in Wolverhampton, 3·25 in Salford, and 3·41 in Liverpool. In London the zymotic rate for the year was 2·66, in the 33 towns 2·44.

There have been four deaths only from small-pox in Nottingham during 1894, notwithstanding a sharp local outbreak of the disease in January and February, and the vigorous continuance of the epidemic in Birmingham. The high local rate of mortality from measles (0·60) and whooping-cough (0·53) have made up for the decline in diarrhœa. These two diseases, indeed, contributed about a half of the total zymotic mortality during 1894, as compared with only one-seventh during 1893. The deaths from primary scarlet fever numbered 50 during 1894, and the rate was equal to 0·22 per 1,000; the number and the rate for 1893 were 83 and 0·37 respectively. Diphtheria is giving rise to very little trouble in Nottingham at present; the death-rate during 1894 was little

Nottingham, 1894. Temperature, Rainfall, and Seasonal incidence of Zymotic Diseases.

		Thirteen Four-weekly Periods, Ending on													
		Jan. 27.	Feb. 24.	Mar. 24.	April 21.	May 19.	June 16.	July 14.	Aug. 11.	Sep. 8.	Oct. 6.	Nov. 3.	Dec. 1.	Dec. 29.	Total.
Mean Temperature		37·7	39·7	42·4	48·0	47·2	54·0	57·0	58·2	55·4	49·7	43·1	42·2	37·1	..
Rainfall in Inches..		1·43	2·09	1·31	0·60	1·83	2·05	1·03	2·57	1·24	0·61	2·19	1·90	1·82	20·67
Onsets of ascertained Cases of	Small-pox	34	12	4	4	..	3	..	..	..	..	..	..	..	57
	Scarlet Fever	119	111	86	79	69	79	64	64	66	84	119	91	129	1160
	Diphtheria	4	6	10	3	5	3	3	3	3	1	4	5	6	56
	Enteric Fever	57	49	34	19	6	10	11	12	26	29	49	41	18	361
Recorded Deaths from	Measles	4	2	5	11	27	40	25	13	5	..	1	..	1	134
	Whooping Cough ..	6	8	3	11	16	16	18	11	11	6	2	3	7	118
	Diarrhœa	5	2	2	7	3	5	8	37	33	21	21	4	5	*153
	Influenza	7	4	1	2	2	..	..	1	..	2	..	..	1	†20

* Total number of primary deaths from Diarrhœa.

† Total number of deaths certified as due to Influenza, without correction.

more than one-eighth that of London, and one-fifth that of the 33 towns as a whole. The deaths from enteric fever amounted to 61 during the past year; the corresponding rate was 0·28. The number and rate for 1892 were 68 and 0·31 respectively. The average death-rate from enteric fever in Nottingham during the past 10 years has been 0·31.

I have already commented on the diarrhœa mortality in writing of the sub-districts, but may here draw attention to the fact that the proportional decline from the fatality of 1893 has been almost equally marked in Nottingham, in London, and in the great towns as a whole.

The number of deaths registered as due to influenza in this town was only 20 during 1894, the lowest number recorded since 1889; the deaths also from respiratory diseases, which necessarily increase largely during influenza epidemics, were less numerous than for many years past. These facts taken together gave rise to the hope that we had seen the last of influenza in a severe form for the present; the experience of 1895, however, is proving the entire falsity of this hope.

Zymotic Death Rates, 1894.

	Nottingham.		London.		33 Towns.	
	10 years. 1884-93.	1894.	10 years. 1884-93.	1894.	10 years. 1884 93.	1894.
Small Pox	0·01	0·01	0·07	0·02	0·06	0·04
Measles	0·48	0·60	0·61	0·76	0·62	0·63
Scarlet Fever ...	0·17	0·23	0·26	0·22	0·30	0 21
Diphtheria	0·10	0·08	0·35	0·61	0·23	0·38
Whooping Cough ...	0·52	0·53	0·66	0·48	0·59	0·48
Enteric Fever ...	0·31	0·28	0·17	0·15	0·22	0·19
Diarrhœa	1·09	0·60	0·73	0·42	0·91	0·51
Total Zymotic rate	2·68	2·33	2·85	2·66	2·93	2·44

Small-Pox.—At the end of 1893 the epidemic in Birmingham and its neighbourhood was still continuing, and this focus of infection was then the principal source of danger to the Midlands, though the disease was also existent at the same time in Edinburgh, Dublin, London, Liverpool, and a few other localities to a lesser extent.

The outbreak at the Nottingham County Asylum on the Carlton-road, which occurred in December, 1893, certainly had origin outside the borough, but it was never satisfactorily traced to its source. This outbreak was almost exclusively confined to inmates of, and persons having entry to, the Asylum. Twelve cases were discovered, with dates of onset all within a period of ten days, and there were two deaths. The cases were promptly isolated, and by the end of December the outbreak appeared to have ceased.

On January 15th "a suspicious case" was notified to me as existing in a closed yard in the very centre of the old town, and close to the Lace Market. I at once proceeded to the spot, and in the course of half an hour discovered eight cases of undoubted small-pox in the yard and its near neighbourhood. All but two were of very recent date; the exceptions (those of husband and wife) were some three and five weeks old respectively, and the first had certainly derived its infection from a person having access to the Asylum but living outside that institution. Owing to the comparative rarity of small-pox in Nottingham of late years, the true nature of these cases was not suspected by the persons in charge of them.

All the patients were at once (after their discovery) removed to the Isolation Hospital, and their homes were disinfected; as many of their friends and neighbours also were vaccinated as could be persuaded to consent to the operation. While making house-to-house visitation in this neighbourhood, I found a large quantity of cotton material, sent out by wholesale firms in the town for various kinds of treatment at the workpeoples' homes. Wherever such material appeared to have been in contact with infected persons or things, I insisted on removing it for disinfection.

This rough material taken home by outside employees of the warehouses appeared such a ready vehicle of the small-pox virus that I decided to visit the warehouses having dealings with the affected area without delay.

Upon making inquiry, I discovered that two warehouses only were having such dealings with the infected yard and its neigh-

bourhood at this time; the reason for this being that many houses send their material to contractors, who sublet it in turn to their immediate neighbours, and thus often confine certain small areas to certain houses of business. I visited the warehouses in question and obtained permission to examine the employees. I also secured a list of absentees from work at the time of my visit, and during the preceding few weeks. Something I heard at the warehouses, concerning the two less recent cases already mentioned, led me to revisit the yard at once with the view of clearing up certain points in their history. I now discovered definitely that the wife's attack (of very mild varioloid) had commenced about December 12th, and the husband's (of well-marked discrete pustular small-pox) about eleven days later. I found that these two people had worked at the cotton goods in their own home throughout their illnesses, and had sent in a large amount of them through the contractor to the warehouses on the 3rd and 6th, and other later dates in January. I subsequently learnt that one of these people was actually at this time secreting a considerable amount of these goods, with a view of returning them to the warehouse through the contractor, and this notwithstanding the fact—of which she was then fully aware—that through her case had arisen the whole epidemic. This woman, I am pleased to say, was successfully prosecuted under section 126 of the Public Health Act of 1875.

I returned to the warehouse that had received the first consignments (January 3rd and 6th), and asked what had become of the goods. I learnt that they had all been made up in one room, that part of them remained in stock, and that part had gone away abroad. I obtained possession of the part remaining in stock, and proceeded with my investigations. I asked about the work-people in the making-up room above mentioned, and learnt that fifteen girls and one youth, out of a total of twenty-seven usually working in this room, were absent through illness. I had previously obtained a list of absentees, but now discovered for the first time that they were practically all from one room. I next examined all the employees in the house, ninety odd in number. Three of the eleven remaining in the making-up room were affected with small-pox rash—mild, aborting varioloid. These

I had at once removed to hospital, and then proceeded to look up the home cases. Without wearying you with unnecessary detail, I may say that, by the end of the ensuing four days, the infectious diseases inspector and I had succeeded, with the aid of only two ordinary notifications, in discovering the whereabouts of and examining all the other absentees from the making-up room, sixteen in number. They all had small-pox almost contemporaneously, and they all went to hospital. I had in the meantime visited and examined the employees at the second warehouse mentioned (which received later consignments of goods from the married couple first infected), but with an entirely negative result, and other subsequent visits and inquiries were equally satisfactory.

There are, I think, several special points of interest about this outbreak. The first is connected with the mode of transmission of the virus from the yard to the warehouse. This transmission was undoubtedly effected through the cotton goods sent in on January 3rd and 6th by the husband and wife first affected, for there was no other conceivable vehicle, and all the nineteen cases subsequently occurring in the making-up room at the affected warehouse had onsets between the 14th and 23rd. The rash of the husband was commencing to scab about the 6th, and he admits that he helped his wife with the work all through his illness. As the second warehouse mentioned had received cotton goods from these people at a later date without any further cases resulting, it is, I think, to be inferred that but little effective poison could have existed in the later scabs of the man, although these were even continuing to form after his admission to hospital on January 15th. I may say in passing that I am strongly of opinion that the infective stage of even acute small-pox does not last so long as is commonly supposed.

Another point is the mildness of type which prevailed among the warehouse patients, and the apparent shortness of the incubation period in some of them. While examining the affected employees—who were mostly adults—I was much struck by these features. Although all but one had been successfully vaccinated in

infancy, only two had been revaccinated ; still, there was not a confluent case among them all, and most of them had extremely modified rashes. The exact incubation period was hard to determine in the majority, but, as three of the mildest cases apparently began to develop within eleven days of exposure to infection, and as one exhibited what appeared to be an inoculation sore on the lip, I came to the conclusion that several of the girls had inoculated themselves ; the possibility of this, indeed, was accentuated by one of the principals at the warehouse passing his thumb from the material to his mouth in the process of stretching and flattening it to show me how the work was done.

Thirty other cases occurred in the town resulting from this outbreak of infection, but by March 8th these further cases had all been isolated, and the history of the lace market outbreak therefore closes with this date. Seven additional cases occurred between the 11th of April and the 6th of June, as a result of infection derived from Birmingham, but there was no small-pox in the town between June 6th and the close of the year.

The accompanying table gives the principal points in the history of all cases discovered in the borough between January 1st and June 6th. These cases (including one which developed before the close of 1895) were 58 in number.

The following is a brief analysis of the tabular statement :—

There were two patients, aged 8 months and 10 months respectively, who were successfully vaccinated, the one 4 days, the other five days, before the appearance of the small-pox rash, and whose attacks were undoubtedly modified and rendered mild by the vaccination. Both of these infants made uninterrupted recoveries. There were no other patients under 5 years of age. There were eight aged between 5 and 15 years ; one was certainly unvaccinated and died ; two others, reported to be vaccinated but having no visible marks, had mild though unmodified rashes and recovered ; the others were well vaccinated, had modified rashes and all recovered. There were 23 aged between 15 and 25 ; all had been vaccinated, all had modified rashes, and all recovered. There were 23 aged between 15 and 25 ; all had been vaccinated,

all had modified rashes, and all recovered. There were 11 between 25 and 35; all had been well vaccinated, and all recovered; in seven the rash was modified; in one, though mild and discreet, it was not modified. There were 13 aged from 35 to 45; all were reported to be vaccinated, but two had no visible marks; one of the latter had confluent, hœmorrhagic small-pox and died, the other, and also two with good vaccination marks, had severe attacks, but recovered. Two were aged 48; both had fairly good vaccination marks, and both had mild attacks followed by recovery; but in one only was the rash modified by vaccination, in the other it was typical in character, though discrete. There was one patient, the oldest, aged 56 years, with two good vaccination marks, who had a mild abortive rash and made a rapid recovery.

There were 58 cases in all, 39 female and 19 male. The excess of female cases was due to the special incidence of infection. Fifty-five of the cases were vaccinated, and these all recovered. Four had been vaccinated, and one within five years of the attack; these all had extremely mild types of the disease, and one had only the prodromal rash, with other signs of onset, without the eruption proper; the variolous nature of the attack, however, was practically proved by the failure of four attempts at vaccination, at intervals of a few days, during the patients' residence in hospital. Three of the cases were certainly unvaccinated, and two of these ended fatally. Prodromal rashes, mostly of the measly and scarlatinal type, were well marked in 14 cases. In one (Female æt. 40) the prodromal rash was hæmorrhagic, and very dark; the variolous eruption, however, which followed, was of a mild form, and the patient made a good recovery. The successful performance of vaccination in the case of two infants, after their infection with small-pox, and within four and five days respectively of the appearance of rash, which I have mentioned above, is a very unusual experience.

The protection afforded by effectual recent vaccination is again well exemplified by the immunity of our hospital staff from small-pox during the whole period covered by this outbreak, notwithstanding their continual exposure to concentrated infection.

NOTTINGHAM, 1894.—History of Small-pox Cases in the Borough.

No.	Initials of Name.	Sex.	Age.	Address.	Condition as to Vaccination. — = unvaccinated. V.i = vaccinated once (in infancy, unless otherwise stated). V.ii = Twice vaccinated.	Nature of Attack. VM = very mild. M = mild. D = discrete. C = confluent. H = hæmorrhagic. Unmod. = unmodified (*in form*). Mod. = modified. Abort. = abortive.	Date of Eruption.	Date of Admission.	Result.	Date of Death or Discharge.
1	E. P.	F	35	24, Lomas Yard, Bellar Gate ..	V ?	D Unmod.	22 . 12 . 93	..	Recovery	This case was the connecting link between the Asylum and Lace Market outbreaks; it was not discovered till convalescent.
2	W. L.	M	56	13, Thorneywood Lane	V.i Two marks	D Mod. Abort. M..	4 . 1 . 94	4 . 1 . 94	Recovery	27 . 1
3	M. L.	F	23	13, Thorneywood Lane	V.i Two marks	D Mod. Abort. VM	4 . 1 . 94	4 . 1 . 94	Recovery	27 . 1
4	M. McG.	F	21	23, Broad Marsh	V.i Two marks	D Slightly Mod.	12 . 1 . 94	13 . 1 . 94	Recovery	24 . 2
5	G. S.	M	13	19, Lomas Yard	V.ii Eight marks	D Mod. Abort. VM	19 . 1 . 94	15 . 1 . 94	Recovery	10 . 3 This patient had scarlet fever when admitted.
6	E. S.	F	35	19, Lomas Yard	Said to have been vaccinated, but no visible marks.	C H Unmod.	12 . 1 . 94	15 . 1 . 94	Death ..	21 . 1 This patient miscarried at 7½ months on the second day after eruption.
7	S. S.	F	38	8, Lomas Yard	V.i Two marks	D Mod. M	15 . 1 . 94	15 . 1 . 94	Recovery	14 . 2
8	W. P.	M	35	24, Lomas Yard	V.i Three marks	D Unmod.	3 . 1 . 94	15 . 1 . 94	Recovery	10 . 2
9	J. R. M.	M	25	25, London Road	V.i Two marks	D Slightly Mod. M	15 . 1 . 94	15 . 1 . 94	Recovery	24 . 2
10	E. M.	F	25	25, London Road	V.i Four marks	D Mod. M	15 . 1 . 94	15 . 1 . 94	Recovery	21 . 2
11	S. A. H.	F	42	7, Lomas Yard	V.ii Six marks	D Mod. Abort. VM	16 . 1 . 94	16 . 1 . 94	Recovery	8 . 2
12	E. W.	F	48	309, Alfred Street	V.i Two marks	D Mod. M	19 . 1 . 94	20 . 1 . 94	Recovery	8 . 2
13	E. H. or R.	F	34	26, Lomas Yard	V.i Three marks	Prodromal rash only. Vaccination rep'tedly tried wth'ut effect	21 . 1 . 94	21 . 1 . 94	Recovery	31 . 1
14	S. G.	F	24	12, Kirkewhite Pl., Kirkewhite St...	V.i Three marks	D Mod. Abort. M	21 . 1 . 94	21 . 1 . 94	Recovery	24 . 2
15	E. B.	F	21	1, Sandringham Ter., Turner St..	V.ii Three marks	D Mod. VM	22 . 1 . 94	22 . 1 . 94	Recovery	10 . 2
16	L. B.	F	7	19, Henry Place, Henry Street ..	V (?) No visible marks	C Slightly H Unmod.	22 . 1 . 94	22 . 1 . 94	Recovery	10 . 3
17	A. S.	F	15	23, Radcliffe Street	V.i Three marks	D Mod. M	21 . 1 . 94	22 . 1 . 94	Recovery	17 . 2
18	H. S.	F	21	32, Lamcote Street	V.i Three marks	D Mod. M	21 . 1 . 94	22 . 1 . 94	Recovery	24 . 2
19	E. W.	F	40	7, Saxon Place, Alfred Street, N. ..	V.i Two marks	D Mod. Abort. M..	22 . 1 . 94	22 . 1 . 94	Recovery	17 . 2
20	C. H.	M	21	43A, Blue Bell Hill	V.i Three marks	D Mod. Abort. VM	23 . 1 . 94	23 . 1 . 94	Recovery	14 . 2
21	L. G.	F	15	62, Blue Bell Hill	V.ii Three marks	D Mod. Abort. VM	23 . 1 . 94	23 . 1 . 94	Recovery	8 . 2
22	E. B.	F	24	2, Waverley Terrace, Goldsmith St.	V.i Three marks	D Mod.	23 . 1 . 94	23 . 1 . 94	Recovery	28 . 2
23	S. A. R.	F	41	5, Mugleston's Yard, Alfreton Rd...	V.i Three marks	D Mod., but severe	23 . 1 . 94	24 . 1 . 94	Recovery	10 . 3
24	A. P.	F	16	3, Hudson Street	V.i Three marks	D Mod. Abort. VM	23 . 1 . 94	24 . 1 . 94	Recovery	18 . 2
25	N. W.	F	16	11, Napoleon Terrace, Bell Street..	V.i Four marks	D Mod. Abort. M	24 . 1 . 94	24 . 1 . 94	Recovery	10 . 2
26	E. H.	F	20	Coleridge Street	V.i Two marks	D Mod. Abort.	24 . 1 . 94	24 . 1 . 94	Recovery	14 . 2
27	L. J.	F	15	25, London Road	V.ii Four marks	D Mod. Abort. M	24 . 1 . 94	24 . 1 . 94	Recovery	8 . 2

28	K. H.	F	34	15, Grenville Street	V.i	Three marks	D Mod.	24 . 1 . 94	25 . 1 . 94	Recovery	24 . 2
29	A. S.	F	22	162, London Road	V.i	Three marks	D Mod. Abort. VM	24 . 1 . 94	26 . 1 . 94	Recovery	14 . 2
30	E. T.	M	38	32, Seymour Street	V.i (?)		C Slightly H Unmod.	26 . 1 . 94	26 . 1 . 94	Recovery	24 . 3
31	J. W.	M	8/12	1, Parker's Yard, Hockley	V.i	Four marks. This vaccination was successfully performed five days before the appearance of s p. rash ..	D Mod. Course of vaccination apparently prolonged by concurrence of s.p. rash	26 . 1 . 94	26 . 1 . 94	Recovery	21 . 2
32	E. R.	F	8	1, Smalley's Yard, Hollins Street ..	V.i	Two marks	D Mod. Abort. VM	23 . 1 . 94	27 . 1 . 94	Recovery	14 . 2
33	A. L.	F	25	13, Hollow Stone	V.i	Three marks	D Mod. Abort. VM	25 . 1 . 94	28 . 1 . 94	Recovery	14 . 2
34	M. A.	F	27	25, Lomas Yard	V.i	Three marks	D Mod. M	28 . 1 . 94	28 . 1 . 94	Recovery	28 . 2
35	T. B.	M	10/12	19, Henry Place, Henry Street ..	V.i	Four marks. This vaccination was successfully performed four days before the appearance of the s.p. rash	D Mod. M	5 . 2 . 94	5 . 2 . 94	Recovery	21 . 3
36	J. B.	M	11	19, Henry Place, Henry Street ..	V.i (?)		Semi C Unmod.	6 . 2 . 94	6 . 2 . 94	Recovery	31 . 3
37	M. P.	F	14	42nd Avenue, Carlton Road ..	V.i	Two marks	D Mod.	6 . 2 . 94	6 . 2 . 94	Recovery	14 . 3
38	F. L.	M	23	13, Hollow Stone	V.i	Two marks	D Mod. Abort. M..	6 . 2 . 94	7 . 2 . 94	Recovery	3 . 3
39	C. T.	F	7	32, Seymour Street	V.i	One mark	D Mod. Abort. M..	8 . 2 . 94	8 . 2 . 94	Recovery	10 . 3
40	M. T.	F	6	17, Bond Street	—	.. ..	C H Unmod.	9 . 2 . 94	9 . 2 . 94	Death ..	17 . 2
41	M. T.	F	38	17, Bond Street	V.i	Two marks	D Mod. Abort. VM	28 . 1 . 94	9 . 2 . 94	Recovery	17 . 2
42	M. R.	F	34	16, Coalpit Lane	V.i	Two marks	D Mod. Abort. M..	12 . 2 . 94	11 . 2 . 94	Recovery	10 . 3
43	L. W.	F	15	97, Alfred Street, S.	V.i	Two marks	D Mod. Abort. M..	22 . 2 . 94	22 . 2 . 94	Recovery	17 . 3
44	P. H.	M	14	39, Brighton Street	V.i	Two marks	D Mod. Abort.	18 . 2 . 94	22 . 2 . 94	Recovery	14 . 3
45	F. H.	F	18	4, Mandalay Street	V.i	Two marks	D Mod. Abort. M..	16 . 2 . 94	22 . 2 . 94	Recovery	3 . 3
46	M.A.H. (or B.)	F	35	4, Mandalay Street	V.i	Two marks	D Mod.	22 . 2 . 94	22 . 2 . 94	Recovery	17 . 3
47	S. S.	M	35	23, Haydon Road	V.i	Two marks	D Mod. Abort.	2 . 3 . 94	3 . 3 . 94	Recovery	24 . 3
48	L. B.	F	40	At R.'s, 3, Conway Street	V.i	Two marks	D Mod. Remarkable hæmorrhagic prodromal rash five days before rash	8 . 3 . 94	4 . 3 . 94	Recovery	14 . 4
49	L. R.	F	22	At R.'s, 3, Conway Street	V.i	Two marks	D Mod. Abort. VM	26 . 2 . 94	4 . 3 . 94	Recovery	14 . 3
50	H. G.	M	21	37, Sherbrooke Road..	V.i	Two marks	D Mod. Abort.	1 . 3 . 94	4 . 3 . 94	Recovery	14 . 3
51	J. B.	F	31	107, Vernon Road	V.i	Three marks	D Unmod.	8 . 3 . 94	8 . 3 . 94	Recovery	14 . 4
52	F. G.	F	29	345, Alfred Street, N.	V	.. ..	D Mod. Abort.	11 . 4 . 94	11 . 4 . 94	Recovery	12 . 5
53	M. T.	M	21	10, Eyre Yard, Eyre Street.. ..	V.i	Two marks	D Mod. VM	16 . 4 . 94	17 . 4 . 94	Recovery	27 . 4
54	A. G.	M	25	20, Cliff Terrace, Hollis Street ..	V.i	One mark	D Mod. M	13 . 4 . 94	15 . 4 . 94	Recovery	4 . 4
55	H. B.	M	23	6, Lees Yard, Newcastle Street ..	V.i	Three marks	D Mod. Abort. M..	20 . 4 . 94	20 . 4 . 94	Recovery	26 . 5
56	A. C.	M	19	27, Eastville Street	V.i	Two marks	D Mod. Abort. VM	22 . 5 . 94	22 . 5 . 94	Recovery	27 . 6
57	J. B.	M	48	Union Workhouse	V.i	Three marks	D Unmod. VM	24 . 5 . 94	29 . 5 . 94	Recovery	27 . 6
58	J. E.	M	37	Union Workhouse	V.i	.. ..	D Mod. M	5 . 6 . 94	5 . 6 . 94	Recovery	18 . 7

In contrast with this I may cite the rapid infection of 19 out of 27 persons engaged in making up infected cotton material, an account of which I have given above.

Vaccination.—I am unable to give the full return of vaccination in Nottingham during 1894, as it has not yet been made up by the vaccination officers. The figures for the first half of the year, however, which I am able to give, are certainly not encouraging from the point of view of the advocates of vaccination. The percentage of total children born who were successfully vaccinated is one of the lowest recorded in the town for the first six months in any recent year.

Vaccination in Nottingham Union. Summary of Statistics, 1883-94.

	Births.	Per centage.			Certified as Insusceptible of Vaccination.	Had Small Pox.
		Successfully Vaccinated.	Died Unvaccinated.	Not finally accounted for*		
Average of 5 years 1883-88	6194	74·3	12·4	13·0	10	0
1889	5398	67·3	12·0	12·1	12	0
1890	5084	69·8	11·7	14·0	11	0
1891	5033	67·1	12·0	16·0	8	0
1892	5142	63·8	12·0	16·2	15	0
1893	5193	64·4	13·4	17·7	24	0
1894 1st half year. ...	2632	62·5	12·7	11·2	9	0

* Up to July 31st of the next year.

Measles.—The prevalence of measles in the borough during the past year shows in strong contrast with that in 1893. The deaths in 1893 were 25 in number; in 1894 they had risen to 134. This last is the largest annual total since 1886, in which year the deaths amounted to 175. The summer maximum was well marked in 1894, for 40 deaths occurred in June, and 100 (out of the total 134) in the three months of May, June, and July.

In the first quarter of the year the disease was existent to some little extent in Bulwell and N.W. Throughout the second quarter it was extensively prevalent in Bulwell, Basford, N.E., and S.E. It had practically disappeared from the neighbourhood by the middle of August. Only 7 deaths from measles were registered in the borough between August 11th and the end of the year.

Four schools were closed during the continuance of the summer epidemic for periods varying from three to six weeks, but with very little apparent effect upon the spread of the disease.

Much inconvenience was caused, on four occasions during the summer, in the scarlet fever wards of Bagthorpe Hospital by the accidental introduction of the infection of measles. The extreme infectiousness of this complaint, and its long incubation, combine to make the task of protecting a large community of young persons (like those in the scarlet fever wards of our Isolation Hospital), during its epidemic periods, an extremely difficult one.

Thirty-six of the deaths occurred among infants under 1 year; 88 in persons aged from 1 to 5 years; 9 from 5 to 15; and 1 from 15 to 25. The death-rate in the first age period is more in accordance with common experience this year than last, when one death only out of a total of 25 occurred among infants under 1.

I shall not again discuss here the vexed question of the provision of Hospital isolation for measles, but can confidently assert that the circulation of warning and instructive handbills, as at present practised by us, is little better than a pretentious and ineffective substitute for leaving the disease entirely alone.

Whooping-Cough.—The concurrent prevalence of whooping-cough and measles has been well marked during 1894. The number of deaths registered as due to whooping-cough was 118; the highest mortality, as in the case of measles, occurred during June, and 83, or 70 per cent., of the total deaths took place during the five four weekly periods ending August 1st, the remainder of the deaths being more or less evenly distributed over the earlier and later months. The average annual number of deaths during the past 10 years has been 106; the highest total was 153 in 1887, the lowest 47 in 1890.

During the first quarter of the year the disease was almost exclusively confined to the N.E. and N.W. sub-districts; during the 2nd quarter it became evenly distributed over the N.W.,

N.E., and S.E. sub-districts; during the 3rd quarter it continued with almost unabated prevalence in N.W. and N.E., while disappearing from S.E.; during the 4th quarter a few scattered cases only were recorded, but these were more or less evenly distributed in all the sub-divisions, except N.W. and N.E., which were entirely free.

The age distribution of the fatal cases was as follows:—0 to 1 year, 59 cases; 1 to 5 years, 58 cases; 5 to 15 years, 2 cases.

The observations I have made respecting the amount of preventive opposition we are at present able to exert against the inroads of measles may be taken as applying almost equally to whooping-cough. Both diseases are highly infectious, give rise to a high aggregate mortality, and, where not fatal, are liable to leave behind a legacy of permanent damage to vital organs; and yet we cannot but feel, and indeed know, that their ravages receive but little check at our hands.

Scarlet Fever.—The number of cases of this disease notified in Nottingham during 1894 was 1,164; the number during 1893 was 1,511, the difference in favour of 1894 being 347. The deaths during 1894 amounted to 49; those of the preceding year were 83 in number. The proportion of deaths to cases was therefore 4·2% in 1894, against 5·4 in 1893.

The cases and deaths in age periods were as follows:—0 to 5 years, 364 cases and 24 deaths; 5 to 15 years, 705 cases and 22 deaths; 15 to 25 years, 67 cases and 1 death; 25 to 35 years, 19 cases and 1 death; 35 to 45 years, 7 cases and 1 death; 45 to 55 years, 2 cases and no death. The death-rates from scarlet fever in London, and in the 33 towns taken together, were almost identical with that of Nottingham during 1894, at 0·22 and 0·21 per 1,000 respectively; but the rates in Bradford, Liverpool, Burnley, Salford, and Wolverhampton ranged upwards from 0·32 to 0·63 per 1,000.

The distribution of the disease in the several sub-districts of

the town during successive quarters of the year is given in the following table :—

Notifications of Scarlet Fever during the Four Quarters of 1894 in the Registration Sub-Districts of the Borough.

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total.
Bulwell	68	45	19	69	201
Basford	56	41	27	30	154
N.W.	56	34	47	76	213
N.E.	73	64	41	110	288
S.W.	16	31	36	31	114
S.E.	58	52	29	38	177
Wilford	3	1	2	11	17
Total	330	268	201	365	1164

Schools were closed on three occasions during the year on account of scarlet fever.

Diphtheria.—The amount of this disease recorded in Nottingham during 1894 was again below the average of the preceding ten years. Fifty-six cases were notified and 20 deaths were registered, but I should mention that two other deaths were probably due to the disease as a primary cause. The mortality in Nottingham during 1894 was equal to a death-rate per 1,000 living of 0·08 ; the rate for the decennium had been 0·10. The rate in London was still very high at 0·68, and the mean rate of the 33 greater towns was as much as 0·38. In other words, the rate of mortality from this disease during the past year was more than seven-and-a-half times greater in London, and nearly five times greater in the 33 towns, than in Nottingham.

A large part of the apparent fluctuation in the proportion of deaths to cases is undoubtedly due to defective diagnosis, and, unless systematic bacteriological investigation of suspected cases is undertaken in the future, it is much to be feared that this source of error will continue to exist as heretofore.

The comparatively few cases I have mentioned as occurring in Nottingham were evenly distributed in almost all parts of the

town throughout the year, but the maximum mortality occurred in the first quarter, half of the total deaths being registered in this period.

The deaths in age periods were as follows :—0 to 1 year, 3 deaths ; 1 to 5, 13 deaths ; 5 to 15, 14 deaths. The two doubtful deaths I have mentioned occurred in the 15 to 25, and 65 to 75 age periods, respectively.

We know but little of the causes which determine the local incidence, persistence, and decline of such diseases as diphtheria, but we can have no doubt of their intense infectiousness.

There are, at the present juncture, very few local cases requiring isolation in hospital, and consequently very few are now removed to Bagthorpe Hospital, but with a greater degree of prevalence it would certainly become necessary to set apart some wards of the latter for the accommodation of cases. Careful disinfection of houses, clothing, bedding, furniture, &c., is practised by officers of the Health Department in all cases of ascertained diphtheria, as with other dangerous zymotic diseases.

The treatment of human diphtheria with the immunized serum of horses has been introduced throughout the civilized world with a boom which probably transcends that of any remedial agent of the present day, but it remains to be seen whether it will sustain the reputation it has so quickly earned.

Enteric Fever.—Although the notified cases of enteric fever numbered only 361 during 1894, as compared with 490 in 1893, the deaths were but eight less in 1894 than in 1893. The deaths in 1894 were 61 in number, in 1893 they were 69. A larger reduction of the mortality was to have been looked for, considering the contrast in the meterological condition of the two years, and the marked decline in the typhoid death-rate throughout the country. The death-rate of the 33 towns fell from 0·24 in 1893 to 0·19 in 1894 ; that of Nottingham only from 0·31 to 0.28.

The number of cases and deaths in Nottingham during 1894 arranged in age periods, were, according to the above figures, as

follows :—0 to 5 years, 25 cases and 1 death ; 5 to 15 years, 114 cases and 11 deaths ; 15 to 25 years, 101 cases and 21 deaths ; 25 to 35 years, 66 cases and 8 deaths ; 35 to 45 years, 34 cases and 10 deaths ; 45 to 55 years, 10 cases and 5 deaths ; 55 to 65 years, 9 cases and 2 deaths; 65 to 75 years, 3 cases and 3 deaths; over 75 years, 1 case and 1 death. The nature of this last case, however, both on the score of age and the favourable issue at such an age, is certainly open to question.

The seasonal distribution of the disease was unusual : 144 of the cases occurred in the first three months of the year, and 142 in September, October, and November; *i.e.*, 286 out of the 361 total cases occurred during these six months, leaving only 75 distributed over April, May, June, July, August, and December. The autumnal rise was well marked, but the very high degree of prevalence in the early part of the year was an unusual circumstance. The fact also that half of the registered mortality occurred in the first quarter adds to the significance of the figures.

The regional distribution of the disease in the town was more uniform than usual during 1894, but Bulwell and N.W. suffered somewhat more than the other sub-districts in proportion to their populations. It must be remembered that a correction is necessary in the returns from S.W., on account of the presence of the General Hospital in this division.

In previous reports I have given accounts of outbreaks of this disease propagated otherwise than through food, milk, and water supplies which had been infected prior to their distribution, but I have seldom had opportunity of studying an outbreak in which there was less reason for suspecting these to have been thus previously infected than there was in one which commenced at Old Radford in September.

George M., a coal miner, aged 36, working at Wollaton, and living at 75, Kennington-road, Old Radford, was attacked with the disease about September 26th. He was apparently infected at Wollaton, as two other men working with him at Wollaton Pit, but living outside the town, were infected about the same time.

This man was laid up at Kennington-road on September 29th. Prior to his attack there had been no case of typhoid in the neighbourhood since the early part of May. George M. died of the disease on October 4th. Between September 26th and December 11th, eight other members of his household, his brother and brother's child, living in the same street and occasionally visiting his house, a midwife and her daughter, also living near, who both assisted in nursing and looking after the sick household, were attacked with the disease. Later still two other neighbours who had visited the patients became infected. The people in Kennington-road and its vicinity were repeatedly warned of the danger of infection, and how best to avoid it. Very little food appeared to be taken by the neighbours in the affected houses, and the special pails provided for the dejecta of the latter were carefully shunned, but, speaking generally, it is of course too much to expect that people of this class will be punctiliously clean and careful in their habits.

It is extremely difficult to determine in detail the actual channels by which the infection is conveyed to each individual. I wish only to emphasize the fact that it was here, and is frequently elsewhere, conveyed in ways which, however difficult to determine in detail, are sufficiently obvious in kind to suggest the necessity of exercising the utmost care in the treatment of typhoid fever cases among persons not yet affected with the disease. Our pail closets are certainly not by any means entirely innocent in the matter, and, when we consider what a favourable nidus a pail closet offers for the cultivation and dissemination of the infective poison, it seems difficult to overrate their possible power for evil in this direction in a crowded and infected neighbourhood. Separate pails, frequently scavenged and cleaned, are provided for infected houses, but it is useless to disguise the fact that this system is more satisfactory in theory than in practice.

I could cite numerous instances to show that multiple cases occur with much greater frequency in houses supplied with pail-closets than in those with water-closets, but the risk from pails is too obvious to call for demonstration.

I have not space to discuss others of the many vehicles by which typhoid infection is probably carried, after its introduction from without, but I may point once more to the fact that very few of our large hospitals, which admit cases of typhoid fever, fail to suffer each year from the infection of members of their staffs. Our hospitals in this neighbourhood suffer continually in this way, and I have found on inquiry that the London Hospitals and others in the provinces have a similar experience. A friend of mine who recently obtained a medical appointment at one of the Metropolitan Asylums Board Hospitals had not been on duty there many weeks before he was laid up with typhoid fever, apparently contracted in the wards.

Although I have laid particular stress upon the conveyance of the typhoid fever infection from person to person in the community after its introduction from without, I have done so simply because I do not think that sufficient importance is ordinarily attached to this method of spread. I do not for a moment wish to minimise the risk of infection through food and water contaminated before distribution.

The reputed infection of oysters and other "shell fish" with typhoid fever and cholera poison is probably one of the most startling and unpleasant scares of which the public mind has recently been the subject in this connection, and at the same time one that must prove extremely difficult to allay, especially as regards typhoid fever. There can be no doubt that grave suspicion attaches to "shell fish" as carriers of infection when the beds upon which they grow are liable to be visited by recent sewage, and it is next to impossible to guarantee that any particular consignments distributed to inland consumers have not been derived from sources exposed to such risk of contamination.

Notification.—The following tables give the numbers of ascertained cases, fatal or otherwise, of the notifiable infectious diseases at various age periods, and at all ages, together with the deaths from the non-notifiable infectious diseases, which have occured in Nottingham during 1894, and other recent years.

Nottingham. Notified Infectious Diseases; cases and deaths in age periods.

1891.

	0-5 yrs.	5-15 yrs.	15-25 yrs.	25-35 yrs.	35-45 yrs.	45-55 yrs.	55-65 yrs.	65-75 yrs.	Over 75 yr.	Total.
Scarlet Fever *Cases*	302	466	80	31	10	6	..	..	..	895
Deaths	14	13	1	..	..	..	..	..	..	28
Diphtheria *Cases*	31	33	13	16	6	1	..	..	..	100
Deaths	14	6	..	1	..	..	..	..	..	21
Enteric Fever *Cases*	29	150	99	66	26	15	8	1	1	396
Deaths	5	15	19	12	4	7	6	1	1	70

1892.

	0-5 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*	313	711	108	24	6	1	..	..	..	1163
Deaths	17	23	3	..	..	..	..	..	..	43
Diphtheria *Cases*	25	20	11	13	5	1	..	..	1	76
Deaths	25	3	..	..	1	1	..	..	..	30
Enteric Fever *Cases*	20	64	58	32	16	10	3	1	1	205
Deaths	3	7	12	6	5	1	1	..	1	36

1893.

	0-5 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	3	12	18	9	6	4	..	..	53
Deaths	1	..	1	1	1	1	..	..	..	5
Scarlet Fever *Cases*	412	918	145	25	8	2	1	..	..	1511
Deaths	50	27	3	2	1	..	..	..	..	83
Diphtheria *Cases*	14	35	13	12	7	..	..	..	..	81
Deaths	7	7	..	..	1	..	..	..	..	15
Enteric Fever *Cases*	30	170	146	71	42	23	7	1	..	490
Deaths	6	12	19	12	8	5	6	..	..	68

1894.

	0-5 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*	2	8	21	11	13	2	1	..	..	58
Deaths	1	2	1	..	1	..	..	..	..	4
Scarlet Fever *Cases*	364	705	67	19	7	2	..	..	..	1164
Deaths	24	22	1	1	1	..	..	..	..	49
Diphtheria *Cases*	20	23	6	5	1	..	..	1	..	56
Deaths	16	4	1	..	..	..	..	1	..	22
Enteric Fever *Cases*	25	114	101	66	34	10	9	3	1	363
Deaths	1	11	21	8	10	5	2	3	..	61

Nottingham. Notification Data up to the end of 1894.

	Scarlet Fever. *			Enteric Fever. †			Small-Pox. *			Diphtheria. ‡			Deaths from Non-Notified 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.
1878	72	..	..	62	..	..	..	..	..	6	..	..	47	83	197	327
1879	180	..	..	42	..	..	1	..	..	1	..	..	73	68	93	234
1880	134	..	..	58	..	..	..	..	..	6	..	..	265	87	273	625
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	115	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

* 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.

Diarrhœa.—The diarrhœa mortality in Nottingham during 1894 was less than half that of 1893, and the actual number of deaths (152) was lower than in any year since 1879, when they were 93 only. The explanation of this low mortality is doubtless to be found in the comparative coolness of the summer and autumn of 1894. The average temperature of the air during the 24 weeks ending November 3rd, 1894, was nearly seven degrees below that of the corresponding period of 1893. The actual rainfall of 1894 was only slightly greater than that of 1893, but its relative value is increased by the lower temperature.

Although the aggregate mortality was much reduced during 1894, the death-rate of the population on the damp and low-lying flats of the S.W. and S.E. sub-districts was again much higher than that of the people living in the more elevated and drier parts of the town. The diarrhœa mortality of the latter was equal to a rate of 0·57 per 1,000, that of the former to 1·13 per 1,000, or almost exactly twice as much.

I have once more appended the tables of earth temperatures and deaths from diarrhœa during each week of the diarrhœa seasons of the past five years. It will be seen that during 1894 the highest superficial temperature was 62·3, and the highest deep temperature 59·1, as compared with 66·8 and 62·3 in 1893.

Temperature of Soil, and Deaths from Summer Diarrhœa.

1890.

	WEEK ENDING.													
	July 19	July 26	Aug. 2	Aug. 9	Aug. 16	Aug. 23	Aag. 30	Sept. 6	Sept. 13	Sept. 20	Sept. 27	Oct. 4	Oct. 11	Oct. 18
Earth Temperature 1 ft. below surface of ground	59·3	59·8	61·0	62·3	60·5	58·7	56·1	56·5	59·1	59·0	57·7	56·4	56·9	..
Earth Temperature 4 ft. below surface of ground	55·9	56·9	57·6	58·6	59·2	58·6	57·8	56·8	57·8	58·0	58·0	57·8	57·2	..
Deaths from Diarrhœa..	1	8	8	12	16	15	11	17	5	13	9	15	11	4

1891.

	WEEK ENDING													
	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 of ground.. ..	58·5	58·1	58·6	59·5	57·9	56·8	57·7	58·7	56·5	54·7	53·7	52·1	49·2	47·6	46·0
Earth Temperature 4 ft. below surface of ground.. ..	57·9	57·2	57·1	57·7	57·5	57·0	56·7	57·7	57·2	56·2	55·1	54·3	52·5	51·2	49·6
Deaths from Diarrhœa	5	5	8	4	6	5	6	12	13	15	10	5	5	4	3

1892.

	WEEK ENDING													
	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
Earth Temperature 1 ft. below surface of ground	55·6	57·4	58·0	57·7	59·2	61·5	59·7	55·7	55·8	54·2	54·0	50·0	48·5	47·7
Earth Temperature 4 ft. below surface of ground	56·0	55·8	56·1	56·5	57·1	58·2	58·8	58·1	56·7	56·0	55·2	53·5	51·4	47·5
Deaths from Diarrhœa..	3	4	5	5	8	10	10	12	13	12	10	10	3	1

Temperature of Soil, and Deaths from Summer Diarrhœa.

1893.

	WEEK ENDING																
	June 17	June 24	July 1	July 8	July 15	July 22	July 29	Aug. 5	Aug. 12	Aug. 19	Aug. 26	Sept. 2	Sept. 9	Sept. 16	Sept. 23	Sept. 30	Oct. 7
Earth Temperature 1ft. below surface ..	59·2	67·4	59 7	63·1	62·1	60 7	61·2	61·2	62 5	66·8	63·1	60·2	61·1	56·8	56·0	53·4	51·4
Earth Temperature 4ft. below surface ..	55·0	56·8	57·4	58·(	59·5	58·7	59·0	59·5	60·0	62·1	62·3	61·2	61·0	59·5	58·6	56·6	55·6
Deaths from Diarrhœa..	2	9	12	15	31	41	29	11	28	22	18	20	16	14	14	9	3

1894.

	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
Earth Temperature 1ft. below surface ..	62·3	61·1	59·4	61·1	61·8	60·0	58·8	57 1	57·9	56·0	54·6	55·3	53·8	51·1	53·2	49·8	47·0	48·4
Earth Temperature 4ft. below surface ..	56·7	58·0	57·9	58·1	59·1	58·9	58·7	57·7	57·4	57·3	56·1	55·7	55·4	53·9	53·4	53·2	51 1	50·2
Deaths from Diarrhœa..	3	3	5	6	13	13	10	16	3	4	5	3	5	8	7	4	2	8

Epidemic Influenza.—The number of deaths attributed to influenza during 1895 fell below any previous annual record since the commencement of the present series of epidemics in 1890. The deaths so registered in Nottingham numbered only 20, and, as the number of deaths ascribed to respiratory diseases also fell below those of recent years, there was much ground for the hope very generally entertained that this most distressing

and fatal malady was leaving us at any rate for the present. The epidemic of February and March 1895, however, bids fair to prove as general and fatal as any of its predecessors.

Nottingham. Weekly number of deaths from Influenza in each of the Registration Sub-Districts of the Borough, during the epidemic periods of 1890, 1891, 1892, 1893, and 1894.

Deaths from Influenza, 1890

Registration Sub-District.	DURING THE WEEK ENDING											
	Jan. 25	Feb. 1	Feb. 8	Feb. 15	Feb. 22	Mar. 1	Mar. 8	Mar. 15	Mar. 22.	Mar. 29	April 5	
Bulwell	..	..	..	..	..	..	..	..	..	..	..	
Basford	..	..	..	..	..	..	2	..	..	..	..	
N.W.	..	..	..	1	3	1	2	2	3	..	..	
N.E.	..	..	..	1	3	..	1	1	1	2	..	
S.W.	1	..	1	..	..	..	..	..	..	..	..	
S.E.	..	..	..	..	..	2	..	..	..	..	1	
Wilford	..	..	..	..	..	..	..	..	..	..	..	
Totals	1	..	1	2	6	3	5	3	4	2	1	= 28

Deaths from Influenza, 1891.

Registration Sub-District.	DURING THE WEEK ENDING									
	April 30	May 7	May 14	May 21	May 28	June 4	June 11	June 18	June 25	July 2
Bulwell	..	..	..	..	..	..	..	..	..	..
Basford	1	1	..	2	1	..	1	..	..	1
N.W.	2	3	6	1	3	3	1	1	1	..
N.E.	1	2	12	2	10	2	5	3	2	..
S.W.	..	1	3	3	3	..	3	..	..	..
S.E.	2	3	1	2	6	5	..	..	..	..
Wilford	..	..	..	..	..	..	1	..	..	..
Totals	6	10	22	10	23	10	11	4	3	1 = 100

Deaths from Influenza, 1892.

Registration Sub-District.	DURING THE WEEK ENDING												
	Jan. 9	Jan. 16	Jan. 23	Jan. 30	Feb. 6	Feb. 13	Feb. 20	Feb. 27	March 5	Mar. 12	Mar. 19	Mar. 26	April 2
Bulwell . ..	..	..	..	..	..	..	1	..	..	..	..	..	..
Basford.. ..	..	..	1	..	..	1	..	..	..	..	..	..	2
N.W.	..	..	1	2	4	3	2	1	2	2	1	2	..
N.E.	..	..	..	1	3	2	2	..	1	2	..	1	..
S.W.	..	1	..	1	3	2	1	..	3	1	..	2	1
S.E.....	1	..	..	2	..	2	1	4	..	2	..	..	..
Wilford.. ..	..	..	..	..	..	..	..	..	1	..	..	..	..
Totals..	1	1	2	6	10	10	7	5	7	7	1	5	3 = 65

Deaths from Influenza, 1893.

Registration Sub-District.	DURING THE WEEK ENDING													
	Oct. 21	Oct. 28	Nov. 4	Nov. 11	Nov. 18	Nov. 25	Dec. 2	Dec. 9	Dec. 16	Dec. 23	Dec. 30	Jan. 6	Jan. 13	
Bulwell..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Basford..	..	..	..	..	1	1	..	2	..	1	..	..	..	
N.W. ..	..	..	..	..	..	1	3	2	1	2	2	1	..	
N.E. ..	..	1	..	..	1	1	2	2	3	1	1	..	..	
S.W. ..	..	..	..	..	..	..	2	..	2	..	..	..	..	
S.E. ..	..	..	..	1	..	..	1	3	4	3	..	..	1	
Wilford..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Totals ..	..	1	..	1	2	3	8	9	10	7	3	1	1	= 46

Deaths from Influenza, 1894.

Registration Sub-District.	DURING THE WEEK ENDING						
	Jan. 6	Jan. 13	Jan. 20	Jan. 27	Feb. 3	Feb. 10	Feb. 17
Bulwell	..	..	..	..	..	..	..
Basford	..	..	..	..	..	1	..
N.W.	1	..	..	..	1	..	..
N.E.	..	..	1	..	..	..	1
S.W.	..	..	2	..	..	..	..
S.E.	..	1	1	1	..	..	1
Wilford	..	..	..	..	..	..	..
Totals	1	1	4	1	1	1	2 = 11

The accompanying tables show the number and the distribution of the fatal cases in Nottingham during the epidemic periods of the past five years, but it must be remembered that, although the numbers may indicate fairly by their relative magnitude the respective severity of the epidemics, they fail altogether to show the actual mortality occasioned by them. This can only be estimated by comparing the numbers of deaths from respiratory and heart diseases, and some others which are found to increase in fatality with the prevalence of influenza, during years in which the latter is respectively present and absent. This comparison I have made in former reports; I shall therefore content myself here with a simple statement of the facts.

Constitutional Diseases.—The variations which the population has undergone of late years, through fluctuation in

trade, render a comparison of the actual numbers of births, deaths, and the like, in successive years, in many cases as reliable as that of rates based upon an estimated population. In discussing the mortality from this, and the other groups of diseases that follow, I shall for the most part confine myself to a discussion of actual numbers.

The total number of deaths during 1894 from the constitutional group was 655, which is lower than any annual record of the preceding 10 years. The reduction has been principally due to a falling off in the mortality from tubercular diseases, of which I shall speak in their turn. Rheumatism and gout in the aggregate showed but little variation from the mean of recent years. Cancer and other malignant growths appear to have been slightly more fatal than in 1893, but the cancer deaths of 1892, again, had been largely in excess of those in either of the later years. The actual number registered in 1894 was 167, and 124 of these were of persons aged from 45 to 75 years. The number of females affected were 102, and the number of males 65. The Registrar-General, in his annual report for 1889, estimated that, according to the records of 1887-8-9, 1 in 12 women and 1 in 20 men in this country who survive 35 years would succumb to cancer (*i.e.*, some form of malignant growth); and, by the law of probabilities it must follow, that on an average in one of three cases either a parent or a grandparent, if he or she survived 35 years, will have died of such an affection. But it must not be forgotten that a large part, if not all, of the apparent increase in the cancer mortality of recent years is undoubtedly due to more accurate diagnosis and classification.

The deaths from the tubercular group of diseases have again declined as compared with the average of other late years Of the reality of this most desirable reduction there can be no doubt, and the record of Nottingham in this respect corresponds with that of the country as a whole. The deaths from diabetes, 15 in number, show but little variation from the mean of recent years. The mortality from the other diseases in this group calls for no special comment.

Developmental Diseases.—The deaths ascribed to premature birth, though slightly less numerous than those of 1893, are considerably above the average of recent times, and that, too, with an extremely low birth-rate. Those from congenital malformations also have largely advanced. The deaths on the other hand attributed to simple old age have fallen off. This last apparent decline, however, is in all probability due to the return of several senile deaths under more definite headings

Local Diseases.—The deaths from this class have declined in a very marked degree. The average annual number during the past five years has been 1,900; those of 1894 numbered only 1,732. The falling off in this mortality as a whole is not entirely due to the decline of influenza during 1894, and the negative influence of this upon respiratory, cardiac, and other diseases; for the average of the five years ending with 1888 (and preceding the present influenza period) was even higher than that given above for the influenza period.

Diseases of the nervous system appear to have been less fatal than in any of the preceding ten years. The deaths from diseases of the circulatory system were slightly in advance of the average. Respiratory diseases, and here the influenza factor principally operates, fell below any record of the past ten years. The deaths in 1894 numbered 684, as compared with a previous (decennial) maximum of 944 in 1891, and minimum of 741 in 1889. Diseases of the digestive system were somewhat above the mean of other recent years. Diseases of the urinary organs have increased in fatality since the late advent of influenza, but there has been singularly little annual variation since 1890. Diseases of the organs of generation and of parturition manifest a slight tendency to decline; the deaths from each were below the decennial average.

Violence.—The deaths attributed to violence were 115 in number, and less numerous than in any year since 1890, when they were 107 only. The accidental deaths amounted to 88, and this number falls below the average of other recent years. There

were six homicidal deaths; these were considerably above the average. The suicides, which numbered 20, were very slightly under the average. There was one execution in Bagthorpe Prison.

Ill-Defined Causes.—The deaths insufficiently explained were somewhat less numerous than of late. Their number was 226, against 268 and 234 in the two immediately preceding years.

Uncertified Deaths. — These, according to the Registrar-General's annual summary, were 50 in number; according to my own returns there were only 45. The higher figure represents a percentage of the total deaths of 1·3. The corresponding rate in London was 0·8, and that in the 33 greater towns 1·7. The highest rate was that of Birmingham at 5·1%.

Inquests.—230 inquests were held by the Borough Coroner during the past year. This number corresponds to a percentage of total deaths of 6·0. The inquest rate in London was 8·6%, and that in the 33 towns 7·3%. The highest rate among the latter was that of Derby at 10·1%, the lowest those of Birmingham and Preston at 2·9%.

Meteorological and Mortality Chart for 1894.—This chart, setting forth the principal statistical data under the above heading capable of such expression (together now with the weekly birth-rate throughout the year), which is prepared under the direction of the Borough Engineer and myself, is bound up under the cover of this Report.

THE BOROUGH ISOLATION HOSPITAL, BAGTHORPE.

The demand for hospital isolation was not so great during 1894 as 1893, and this was mainly owing to the diminished number of scarlet fever cases in the borough. Still, the hospital was

very nearly as full on two occasions during the past year as in the winter of 1893. The maximum number of patients on any one day was 208 on January 24th, the minimum 99 on September 12th. It will be remembered that for a short time in 1893 it became necessary to refuse admission to a certain number of cases. Such a necessity, I am pleased to say, has never arisen during 1894, although the escape from it was more a matter of accident than otherwise.

The cases admitted were of nature and number as follows :— Small-pox, 57 ; scarlet fever, 934 ; enteric fever, 7 ; other diseases, such as measles and whooping-cough (for the most part admitted accidentally in the stage of incubation), 18 cases.

Nottingham. Numbers of Scarlet Fever cases notified, and removed to Hospital, in 1894, and other recent years respectively.

	Known cases.	Removed to Hospital.	Per cent. isolated.
*1882 ..	1029 ..	— ..	—
1883 ..	428 ..	— ..	—
1884 ..	384 ..	— ..	—
1885 ..	390 ..	47 ..	12
1886 ..	351 ..	51 ..	15
1887 ..	615 ..	275 ..	45
1888 ..	643 ..	318 ..	49
1889 ..	1047 ..	745 ..	71
1890 ..	984 ..	800 ..	81
1891 ..	895 ..	771 ..	86
1892 ..	1163 ..	1025 ..	88
1893 ..	1511 ..	1065 ..	70
1894 ..	1164 ..	934 ..	80

* First year of the practice of compulsory notification.

Total Cases in Isolation Hospital, 1894.

	Remaining at end of 1893.	Admitted during 1894.	Recovered.	Died.	AVERAGE RESIDENCE IN DAYS. Non-fatal Cases.	AVERAGE RESIDENCE IN DAYS. Fatal Cases.	Remaining at end of 1894.
Small Pox	4	57	58	3	26	7	—
Scarlet Fever	171	934	895	25	52·8	18	185
Enteric Fever	1	7	4	3	52	21	1
Other diseases	—	18	17	1	18·6	11	—
TOTAL	176	1016	974	32	—	—	186

Age and sex distribution of non-fatal and fatal cases of Scarlet Fever admitted to Bagthorpe Hospital during 1894.

	Males.	Died.	Females.	Died.
Under 1 year ..	5	1	1	–
Between 1 and 2 years	16	2	13	–
„ 2 and 3 „	33	3	26	2
„ 3 and 4 „	38	–	44	1
„ 4 and 5 „	52	2	40	2
„ 5 and 10 „	198	4	218	7
„ 10 and 15 „	77	–	99	–
„ 15 and 20 „	20	–	17	–
„ 20 and 25 „	6	–	8	–
„ 25 and 30 „	3	–	7	–
„ 30 and 35 „	3	–	1	1
„ 35 and 40 „	1	–	3	–
„ 40 and 45 „	–	–	3	–
„ 45 and 50 „	–	–	1	–
„ 50 and 55 „	–	–	1	–
Totals ..	452	12	482	13

Total cases, 934. Total deaths, 25. One of the latter was from acute necrosis of lower jaw, one from brain abscess, and four from post-scarlatinal nephritis.

A full account of the small-pox outbreak will be found under "Small-pox." One only of the cases was left at home, and here the period of infection was exhausted before the discovery of the case. All the others were found in an infectious condition, and removed to hospital as soon as discovered. Four were removed before the small-pox rash appeared, 32 on the same day as the rash, 10 on the first day after rash, two on the second day after, and the remaining 10 within twelve days of the first appearance of rash. It is perhaps hardly necessary to say that the value of isolation depends mainly on two things, and that these are,—the promptitude with which it is carried out, and its degree of completeness.

The system of paying for the maintenance of persons recently exposed to infection, during a sixteen days' quarantine after their last exposure, has been found by us to work exceedingly well, and the money thus laid out has proved, by the undoubted curtailment this system has effected in recent outbreaks, to have been well expended. On two occasions only was it found necessary to provide accommodation for persons temporarily deprived of their home during its compulsory disinfection (under the Infectious Diseases Prevention Act, 1890). This has hitherto been done either by arrangement with private persons, or by

sending the evicted tenants to empty wards at the hospital, but a better plan would be to keep a small house for the purpose upon the hospital enclosure.

The total number of scarlet fever cases notified during the year was 1,164, against 1,511 in 1893; and 934, or 80°/₀ of these, were isolated in hospital, as compared with 1,065, or 70°/₀, in 1893. The cause of the decline in the proportion of admissions in the last year was the temporary block to which I have already alluded. The proportion of early removals of scarlet fever patients has again risen as compared with the preceding year, although not quite to so high a figure as in 1892. The percentage of cases removed on the day of rash was 15·4, and 78°/₀ of the cases were removed within a week of its first appearance. The corresponding figures for 1892—the best we have to record—were 16°/₀ and 86°/₀.

NOTTINGHAM, 1894.

Scarlet Fever in Houses of various Classes.

Annual Rental of Houses	Under £10.	£10 to £15.	£15 to £20.	£20 to £30.	£30 to £40.	£40 to £60.	£60 to £80.	£80 to £100	£100 to £200.	£200 and over.
Average number of rooms in each class of houses ..	3	5	6	6	7	8	8	12	14	18
Nos. of Patients admitted to Hospital from each class ..	344	409	137	48	6	8	3	1	..	..
Per-centage of total Patients admitted to Hospital from each class ..	36·8	43·8	14·6	5·1	0·6	0·8	0 3	0·1	..	..
Nos. of Patients not removed to Hospital in each class ..	39	82	44	16	8	7	3	1	..	..
Per-centage of total Patients not removed to Hospital in each class ..	19·5	41·0	22·0	8·0	4 0	3·5	1·5	0·5	..	..

I have once more prepared a table shewing (*a*) the number of scarlet fever patients removed to hospital from houses of various sizes and rentals, (*b*) the percentage such numbers represent of all patients removed, (*c*) the numbers of patients remaining at home in various classes of houses, and (*d*) the percentage of all unremoved cases represented by these numbers. The removals from houses of rentals under £10, and from £10 to £15, have increased as compared with the previous year's record by more than 6%, or almost exactly the amount by which they had fallen below those of 1892. The removals from houses of higher rental have declined. These alterations are partly explained by the fact that there has been no check to the admissions from the poorer houses during the year, and partly to a desire recently expressed by you that the removal of patients from larger houses in which isolation could be fairly carried out should not be unduly encouraged.

The contrast, in favour of the hospital, between the hospital and home mortality of 1894 is more remarkable than in any other year for which I have hitherto prepared this record. The hospital mortality, expressed as percentage of cases, was but 2·7, whereas the corresponding rate among cases nursed at home was no less than 10·4%, shewing a difference of actually 7·7% in favour of the hospital. A small part of this difference is probably accounted for by the fact that some very severe cases are kept at home, but it is out of the question that the whole difference should be so explained. Careful nursing in our hospital, and our standing rule of three weeks confinement to bed as a minimum for all cases, are a far more probable explanation.

I regret to say that in drawing up the accompanying table of primary and secondary hospital and home cases, and their respective mortalities, I have not been able to insure the same accuracy in all particulars which the estimate of hospital and home mortalities admit of. It will be seen that I have not always been able to classify every case as either primary or secondary. Still, the uncertainties are so few as not materially to affect the value of my figures.

NOTTINGHAM, 1894.

Table shewing the results of hospital and home isolation respectively, during the year 1894, both with regard to the development of secondary cases, and to mortality in each class of cases.

	Class of Cases.	No. of Cases.	% of Cases.	No. of Deaths	Deaths % of Cases	
Hospital cases.	(*a*) Primary	771	66 % of all notified cases	17	2·2	Total death-rate per cent. 2·7
	(*b*) Secondary in houses from which (*a*) came, within 21 days of their removal	110	13·5 % additional to (*a*)	4	3·6	
	(*c*) Secondary after return home from hospital, and within 21 days of return	41	4·5 % additional to (*a*) & (*b*)	4	9·7	
Home cases.	(*d*) Primary	170	14·6 % of all notified cases	16	9·4	Total death-rate per cent. 10·4
	(*e*) Secondary during progress of case at home	60	35 % additional to (*d*)	8	13·3	

The principal points brought out by this table are—(*a*) the difference in hospital and home mortality, already discussed, of 7·7 in the hospital's favour; (*b*) the difference in the amount of secondary infection resulting from hospital and home treatment, the latter being twice as great as the former; (*c*) the amount of return cases, or those apparently infected by the return of hospital cases to their homes, which last year I am pleased to say was only 4·5% of all hospital cases, as compared with 5·0% the year before; and (*d*) the very high mortality (which I have now for some years noticed to be almost invariable) among persons infected by those in whom the infection is presumably almost exhausted.

Only seven cases of typhoid fever were admitted, as, by a recent rule, you have decided practically to leave the isolation of typhoid fever cases to the General Hospital, which now reserves 20 beds for the purpose. One of our cases proved fatal from simple exhaustion, and two from the intensity of the disease. I

may mention here that my own recent experience points strongly to the conclusion that it is highly dangerous to remove typhoid fever cases after the end of their second week. The other cases accommodated in hospital during the year call for little comment. The majority were cases of measles and whooping-cough which developed in the wards after admission for other ailments. All but one ended in recovery. One very interesting septic case (that of a boy aged 18) taken in from the Union, may be mentioned here, although the history properly belongs to the previous year. The true nature of this case was, I think, never determined, but it was called erysipelas for lack of other definite diagnosis. It was characterised by high fever and subsequent collapse, and by the sloughing away of practically all the skin and superficial tissues of the left leg and left half of the buttock. Notwithstanding this frightful condition, however, the boy was making a good recovery, when, by desire of the Union Authorities, he was returned to the Union Hospital. Within a fortnight of his return he succumbed to erysipelas.

The following were the actual numbers or percentages of the more important recorded complications among the Hospital cases during 1894:—

SCARLET FEVER.

Otorrhœa (ear inflammation)	13·5 per cent.
Nephritis (kidney inflammation)	5·9 „
Secondary sore throat	4·2 „
Rheumatism	1·9 „
Glandular abscesses	4·3 „
Post-aural abscesses (ear)	1·0 „

SMALL-POX.

Abscesses	3·4 per cent.
Ulceration of cornea and conjunctivitis	5·1 „
Erysipelas	1·7 „
Bronchitis	5·1 „
Laryngitis	6·8 „

ENTERIC FEVER.

Pneumonia	1 in 7 cases
Scarlet fever	1 in 7 „
Hæmorrhage	1 in 7 „
Anæmia	4 in 7 „

The total hospital expenditure during the year ending March 31st, 1895, amounted to £4,814. If we deduct from this the sum of £330, which was received for the maintenance of patients, for special disinfection, and for rent of land, we obtain a net expenditure of £4,484 for the year. This sum compares very favourably with the £5,969 expended in the preceding year; but, as I have before pointed out, rather more than £1,000 of this last amount should have been relegated to the capital account, as it was laid out in the erection of more or less permanent iron small-pox hospitals and a permanent shelter at the hospital entrance, in furniture and repairs, and in the payment of a lump sum royalty on the disinfecting apparatus.

Estimating the mean number of beds in use during the year to have been 150, the annual cost per bed amounts to about £30. This figure is a very low one, being little more than half the amount stated to be expended in several other large permanent Isolation Hospitals of this country.

The average cost per head of patients during the year was £4 8s. 3d., which, with an average residence in hospital of nearly seven weeks, is a very small sum.

Dr. Augustine Griffith continues to act as Resident Medical Officer at the Hospital, and it is perhaps hardly necessary to add that his conduct in this capacity is entirely satisfactory. He has also continued during the year to devote a large part of his leisure time to the acquisition of experience in all the various work of the Health Department. Practical experience gained in this manner is the best possible qualification for gentlemen intending, as he does, to enter the Public Health Service. Public authorities are every year demanding more practical experience from candidates for Public Health appointments.

Miss Dickinson, who had been Matron of Bagthorpe Hospital from its opening in 1891, was appointed Matron of the new and important hospital of the London Asylums' Board at Tooting, in March of last year, and Miss Fox, who had previously acted as

Deputy Matron, was appointed to succeed her as Matron. I desire to acknowledge the excellent service which both these ladies have rendered in this responsible position.

Disinfection.—The number of houses cleaned and disinfected by officers of the Health Department, and of articles removed to the disinfecting stations at the Eastcroft depôt and Bagthorpe Hospital, for disinfection by steam and other agents, have alike increased during 1894 beyond those of any previous year. Every encouragement has been and is offered to the public to submit any of their goods which may have run the risk of infection from the "dangerous infectious diseases," or from tubercular diseases, to disinfection at the borough stations, and the result has been to increase the work of this department to a very large extent. The lists of articles disinfected during 1894 and other years, which accompany this paragraph, show that the aggregate for last year has advanced by more than 4,000 articles beyond that of 1893, and by nearly 10,000 articles as compared with any previous year.

Articles Disinfected at the Public Stations in Nottingham, 1883-1894.

	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894
Bedding ..	1614	1767	2154	2411	4956	5250	5683	6020	5357	6735	8521	2943
Clothing ..	771	1025	944	1316	3674	4827	5513	7577	4741	10253	11266	20579
Furniture & Hangings	380	492	687	572	1091	799	757	585	401	439	726	1541
Miscells. Articles	765	1127	2378	2147	6273	7565	10118	11548	8586	13319	10573	10303
TOTAL ...	3530	4411	6163	6446	15994	18441	22071	25730	19085	30746	31086	35366

The importance of this branch of preventive work has long been recognised by most people, but such illustrations of the extreme danger frequently arising from the exposure of goods to infection as I have given in my account of the Lace Market outbreak are useful object lessons for the incredulous. Current or

superheated steam is the best disinfecting agent for articles which are not seriously damaged by exposure to steam, but there are several materials (such as leather) which are completely destroyed by it, and articles into the composition of which such materials enter have to be otherwise treated. It speaks well for the care exercised by the disinfecting staff that very few complaints of damage have recently been received. A small charge is still made for the disinfection of goods affected only with moth and other vermin, and the like, and this charge should, in my opinion, be maintained, to prevent the too general use of the public stations for such minor purposes.

The somewhat discrepant variations, which, according to my list, appear to have taken place in the respective numbers of the various classes of goods disinfected, are due to lack of uniformity in the system of entering up these goods when received; for example, bedclothes will at one time be classed as bedding, at another as clothing—but these errors are of no practical importance.

Mortuary.—Sixty-eight bodies were received at the Eastcroft Mortuary during 1894. This total is slightly less than that of 1893, but the decrease is probably only accidental, for there can be no doubt of the increasing popularity of the mortuary as a place of temporary deposit for the dead. It is now superintended by a trustworthy officer, and provided with a special carriage for the conveyance of bodies. All has been done, therefore, that can be done under existing conditions, to merit public confidence. The one great drawback to the mortuary, however, is its situation. Sentiment affects public opinion more largely in connection with the dead than in any other matter, and public sentiment is offended by the notion of placing the dead in the immediate vicinity of a refuse depôt. Mortuaries should certainly be isolated if possible, but there is plenty of open space in the southern part of the town more suitable for this purpose than the Eastcroft. The situation (from this point of view) of the new mortuary at Hyson Green will undoubtedly be far better. I have

already alluded elsewhere to the necessity for further accommodation of this kind in the town. A well appointed and well managed mortuary is a great boon to a dense and poor neighbourhood.

The Eastcroft mortuary was opened in 1883, and 582 bodies have been admitted to it since this date.

Common Lodging Houses. — There are now sixty-eight of these houses upon our books, registered in the names of sixty-two lodging house keepers. Twelve old houses previously closed have been reopened, and three new houses have been started. The existing 68 houses contain bed accommodation for 1,160 persons. There are 778 single, and 198 double beds. The number of separate houses at the end of 1893 was 53, and the number of lodging house keepers 38. The bed accommodation was then sufficient for 1,038 persons. There were 650 single, and 194 double beds.

A special effort has been made during the year to improve the condition of these houses. Inspector Golding has measured up the rooms in each of the houses, and, whenever the full 300 cubic feet per bed was not allowed, the number of beds have been curtailed to bring the cubic space allowance up to the required amount. The closet accommodation also has been improved and increased, especially in the neighbourhood of Narrow Marsh, where there was, and indeed is still, room for much improvement in this respect.

Ten summonses have been issued for infringement of the regulations on the part of two lodging house keepers, and convictions obtained in each case. The effect of these punitory examples has certainly been beneficial, and is seen in the improved condition of a large number of houses besides those in respect of which proceedings were taken.

During the local prevalence of small-pox, returns of the previous day's arrivals at each of the houses in the Borough were once more obtained (under Section 83, Public Health Act, 1875), and a continual visitation made by the Inspector, but, owing to the fact that infection was not then specially rife among the tramp population, the result was less directly useful than on former occasions. The available accommodation and the number of lodgers received in each of the Corporation Lodging Houses, in 1894 and other previous years, is given in the accompanying table. By this it will be seen that both the Corporation Houses now in use have admitted more lodgers than in the preceding year. The closing of the Millstone Lane House, which took place in 1893, will not have affected the admissions to these.

Situation of lodging-house.	No. of beds.	No. of Lodgers admitted in each of the years.						
		1888.	1889.	1890.	1891.	1892.	1893.	1894.
Millstone Lane	18	3,828	3,696	3,803	3,786	4,276	3,769	—
Popham Street	38	6,151	5,172	5,810	6,442	7,708	7,273	7,813
Parliament Street (for women only)	20	3,597	3,804	4,107	4,720	5,110	5,387	5,555
		13,756	12,672	13,720	14,948	17,094	16,429	13,368

The increase, noticeable alike in the admissions to the Corporation and private lodging houses, is doubtless due to the large influx of workpeople occasioned by the commencement of the new works of the Manchester, Sheffield, and Lincolnshire Railway in the neighbourhood of the town. The town works were begun only in October, but the immigration of workpeople commenced at an earlier date.

Housing of the Working Classes Act, 1890—Insanitary Dwellings, &c.—The following is a list of the houses which have been actually certified by me as unfit for human habitation, under section 30, part ii. of the above Act, which states that—"It shall be the duty of the Medical Officer of Health of every district to represent to the local authority of that district any dwelling-house which appears to him

to be in a state so dangerous or injurious to health as to be unfit for human habitation" :—

Date of Certificate.	Situation of Houses.	No. of Houses.
March 8th	No. 6, Gibraltar Place	1
„	„ 8 and 9 „	2
„	„ 1 and 7 „	2
Sept. 21st	„ 9 to 21, Patriot Street	7
„	„ 6 to 18, Abinger Street	7
Nov. 1st	„ 11 and 13, Bridge Square, Ilkeston Road, and first house from the road	3
Dec. 13th	S.E. District	8
„	S.E. District	7
„	S.E. District	10
„	S.E. District	10
	Total	57

Not all the houses on this list have up to the present been dealt with, because neither the owners nor the magistrates will in all cases take the same view of their condition as the Medical Officer of Health and the Health Committee; but the moral effect upon the owners of decaying house property in the borough, of the proceedings that have been and are to be taken, is more gratifying than any simple success of such proceedings could be.

Besides the houses officially condemned, there have been 30 others voluntarily closed by the owners, and 21 of these were subsequently surrendered to the Corporation for demolition. All the property here referred to has been examined by the Borough Engineer and yourselves, and you and he have entirely concurred in the action that was taken in the first instance.

Factory & Workshop Acts—1878-1891.—I have once more given, at the end of this Report, a list of the hand power trades carried on in the borough, with the number of workshops devoted to each, the number of persons, male and female, employed in each trade, and the number of inspections made by

Mr. Flint and Miss Hawksley, the male and female Workshop-Inspectors of the borough, during the year. There will also be found, with these, tables of the remedial work done in workshops, and of the provision of means of escape in case of fire for factories (which falls within the province of the Health Department).

Section 3 of the Factory and Workshop Act of 1891 requires the Medical Officer of Health to give written notice to H.M. Inspector of Factories in his district whenever he becomes aware of the employment of any child, young person, or woman in a workshop.

I have sent notice respecting 68 workshops in which such labour was employed to Captain Bevan during the past year. I desire to take this opportunity of acknowledging the invariable courtesy of both this gentleman and Miss Deane, H.M. Lady Inspector acting in this district, upon all occasions and in all matters which have brought us into official contact.

The work of improving the conditions of life in factories and workshops progresses slowly but steadily, and the outlook is hopeful, though not to any great extent perhaps for the immediate future. Prejudice and superstition die hard, and most people, especially the young, are far more prone to accept, for good, statements on authority as necessarily true, than to inquire for themselves respecting the reasonableness of such statements. It is often, therefore, extremely difficult to convince grown up persons, by even the clearest and most convincing demonstration, that pure air is better than foul for their lungs, and cleanliness better than the opposite for their persons and surroundings.

With the view of assisting the workpeople to understand and appreciate some of the reforms that are being introduced in the condition under which they live and work, you have lately provided for the delivery of lectures on Hygiene to workpeople in various parts of the town. These lectures have been delivered by the lecturers of the Ladies' Sanitary Association (now the Nottingham Technical School for Women), of which I am a member,

and have been so well attended as to give us confident hope of their future success. Our thanks are due to some leading employers in the Lace Market for their co-operation with us in promoting this lecture scheme. It is further proposed, in the autumn of 1895, to commence a course of lectures to workwomen upon the management of their health when in a pregnant condition. It is hoped that these lectures may prove specially helpful in view of probable future legislation affecting the employment of pregnant women. The Act of 1891 forbids the employment of a woman within a period of four weeks after her confinement in any factory or workshop, but the period of inhibition will almost certainly be extended so as to embrace a considerable term both before and after the confinement.

Shop Hours Acts, 1892, 1893.—The first of these Acts forbids the employment of young persons (under 18 years of age) in any shop for more than seventy-four hours a week, or in any factory or workshop and shop, concurrently, for such a time as to exceed the aggregate period allowed for work by this, and the Factory and Workshop Acts respectively. In the opinion of many people it would be better also to stipulate a maximum daily time, for there is still nothing to prevent the employment of these "protected persons" for excessively long hours during a few days of the week, provided the weekly aggregate of 74 hours be not exceeded. Four serious offences only under this Act have come to light during the year, and the illegal employment was in all cases at once discontinued on the receipt of a notice from the Health Department.

It is extremely difficult to prevent the employment of young persons for excessively long hours in certain shops the trade of which takes on an increased activity at particular seasons of the year. Provision dealers, fishmongers, and poulterers at and about Christmas time are perhaps the worst offenders against this Act. The best way out of the difficulty for such people is to employ their "young persons" in shifts.

Considerable difficulty has often been experienced in the past in securing the exhibition of an Abstract of the Act upon

premises where young persons were employed; but the recent amendment authorizing the imposition of a 40/- fine in cases of neglect should entirely remove this difficulty.

Canal Boats Acts.—The Inspector of Canal Boats, Mr. Willbond, reports that he has examined 186 boats during the year. Eighteen infringements of the Acts and Regulations have been brought to light, but no difficulty has been experienced in obtaining redress of matters complained of. The number of children carried upon canal boats in this district appears to be on the increase, a fact to be borne in mind by the School Board Officers. There seems to be a general rule among the latter of looking only after the children upon those boats which are registered in their own districts. This, of course, should not be.

Dairies and Cowsheds.—The number of dairymen and milksellers upon the Borough register was 881 at the close of 1894. Twenty fresh names had been added during the year. The keepers of cowsheds numbered 160, and twenty of these were registered during 1894.

There is much work to be done in the way of bringing dairies and cowsheds, and the trade carried on in them, into reasonable conformity with the regulations recently made by you and approved by the Local Government Board. Hitherto our practice has been to interfere only in cases where glaring nuisances existed, but now that definite regulations exist for our own guidance, and that of persons engaged in the trade, it is time that a more systematic line of action were taken. Eight hundred cubic feet (the regulation amount) seems little enough space for a cow, and yet a very large proportion of the cows in the Borough are housed in less space than this.

Slaughter Houses. — The number of slaughter houses upon the borough register at the end of 1894 was 150. Seven existing slaughter houses were closed during the year, but none reopened. Six transfers of permits were granted. Six

applications for permits to open new slaughter houses were received; three were granted, and three refused:—

	Situation of proposed Slaughter House.	Result of Application.
1.	Alfred Street Central	Granted.
2.	Bangor Street, Alfred Street North ...	Granted.
3.	North Gate, New Basford	Granted.
4.	Barkers' Yard, Crocus Street... ...	Refused.
5.	Constance Street, Sandon Street, Basford	Refused.
6.	Radford Road, Hyson Green... ...	Refused.

The slaughter houses of the borough are not increasing in number, and their general condition is now for the most part much better than it was a short time ago. But this is all that can be said from the health standpoint in favour of these private slaughter houses. Effective official supervision is practically impossible under the present system, and can only be looked for when all the slaughtering of the borough is carried out in a public abattoir.

I have stated elsewhere that the amount of butchers' meat seized during one month in Edinburgh, which is not greatly larger than Nottingham, but is provided with abattoirs, frequently exceeds that taken during a whole year in this town. I find, upon again consulting the returns of both places, that the amount of meat annually seized during recent years in Edinburgh has averaged considerably over 150,000lbs.; whereas that taken in Nottingham has never reached 10,000 lbs. in any year of which the records have been kept, and has once recently (1892) fallen as low as 2,534 lbs. I leave these figures to speak for themselves; the inference to be drawn from them is obvious.

Diseases of Animals Act, 1894. — This Consolidated Act leaves the paramount administrative function in the hands of the Central Department and its Travelling Inspectors. Local Authorities, however, may still have special powers conferred upon them by orders of the Board of Agriculture.

Eight notifications of reputed outbreaks of swine fever have been notified by us to the Board of Agriculture during the past year.

Food Stuffs.—The accompanying lists of various food stuffs seized and condemned during the year show that there has been no lack of activity in this department of work, and also very forcibly impress upon us the necessity for active supervision. The very large increase in the amount of fish seized is doubtless due to the re-opening of the full trade with Hull and Grimsby, which had been curtailed to a considerable extent during the cholera period of 1893. But, as I have pointed out in the paragraph on slaughter-houses, if we compare the amount of butchers' meat seized in Nottingham with that taken in a large town with a public abattoir, the former, large as it appears on paper, dwindles to comparative insignificance.

MEAT.

	Stones.
Beef	568
Pork	133
Mutton	8
Plucks	1
	710

FISH.

	Stones.
Herrings	752
Cod	205
Halibut	200
Mackerel	156
Shrimps	147
Haddocks	130
Catfish	108
Hake	96
Finneys	79
Conger Eel	41
Kippers	36
Skate	33
Salmon	24
Codling	16
Eels	12
Whiting	10
Pullen	8
Bloaters	4
	2057

"SHELL FISH."

	Stones.
Mussels	192
Cockles	30
Whelks	22
Oysters	5
	249

VEGETABLES.

	Stones.
Peas	80
Watercress	4
	84

FRUIT.

	Stones.
Plums	188
Pears	131
	319

Fowls	10

Sale of Food and Drugs Acts.—The samples taken for analysis during the year, with the results obtained upon analysis, are given in detail below. The number of samples is larger than in 1893, but that of the adulterations is less. The inference, I need hardly say, is gratifying. We do not wish to swell the number of our cases won, but to keep the food supplies pure. Particulars of proceedings instituted in respect of the above, and other offences, are given under the heading "Prosecutions."

	No. of samples taken.	No. Pure.	No. adulterated or deficient.	
			Deficient in Fat.	With added water.
Milk	63	49	1. 40% 1. 11% 1. 10% 1. 4% 1. 3%	1. 17·0% 1. 11·5% 1. 11·0% 2. 7·0% 2. 4·4% 1. 2·5% 1. 1·6%
Lard	23	22	1 with Water, 2%	
Butter	24	21	1 with Water, 5·9% 1 with No Butter Fat. 1 with 30% Fat other than Butter Fat.	
Whiskey	13	12	1 with 3% excess of Water.	
Pepper	12	11	1 with 5% of Mineral Matter (which proved to have been derived from shop sweepings).	
Turpentine	1	1		
	136	116	20	

Work of the District Inspectors.—The table of nuisances abated at the instance of the District Inspectors, which is given at the end of this report, shows a considerable reduction under several headings, in the amount of work accomplished, as compared with that of 1893; but this is chiefly due to the difference in the meteorological conditions of the two years. 1893 was a diarrhœa year, and the unusual prevalence of diarrhœa and enteric fever, coupled with the unusual heat and dryness of the summer (which gave rise to this prevalence), caused the public to be much more alive than usual to the existence of offensive nuisances. During such a year the Sanitary Inspector meets with more cordial co-operation on the part of those for whose benefit he exists than at ordinary times, and the consequence is that he hears of more work to do and gets more work done. Another contributory cause of the diminution is that the special activity of such a year as 1893 leaves a less number of items ready to hand when it is over.

In looking down the list and comparing it with those of other years, we notice that the alteration of old standing structural defects, excepting those of outside drains, have proceeded without much variation for some time past. For instance, the disconnection of sink wastes, the repair of water closets, the abolition of ashpits and privies, and the substitution of pail-closets, slop-or waste-water closets, or water closets, and the paving of courts and alleys, show no falling off.

The recent state of uncertainty as to the future attitude of the Corporation towards the pail system of excrement disposal has placed the Sanitary Inspector in a very unsatisfactory position in dealing with nuisances arising out of the condition of pail closets and privies. If the dry system were to be allowed to continue as that approved by the Corporation for all houses of less annual rental than £18, the Inspector could not reasonably ask owners of property to put in water closets unless they were willing to do so. He had, therefore, simply to advise property owners upon the respective merits or demerits of the different kinds of closets, and then leave the choice to them. In the vast majority of cases, it is almost unnecessary to add, the owner decided to adopt the unsavoury but, to him, economical pail closet.

The Leen and the Lower Meadow Drainage.—The Corporation are to be congratulated upon having at length undertaken to deal effectually with these two urgent and highly important matters. With the practical details of the elaborate schemes by which, upon the advice of the Borough Engineer, it is proposed to deal with them, I have of course nothing to do; but I may once more repeat that, in my opinion, the Corporation have seldom undertaken work the performance of which lay more in the line of their proper duty, or the neglect of which would expose them to more just and grave reproach, than the removal of the old standing and dangerous nuisances connected with the state of the Leen and the Lower Meadow Drainage.

Burial Grounds.—The decision of the Public Parks and Burial Grounds Committee to proceed without further delay

with the highly important and necessary project of providing a practically extra-mural cemetery for the town, is one that cannot fail to meet with the approval of all classes. The average annual number of deaths in Nottingham exceeds 4,000, and all the existing burial grounds are within the borough, and are either already filled or rapidly filling up.

The burial of the dead in populous places has long been regarded with disfavour by sanitarians. If people will not submit their dead to cremation, they should at any rate bury them at a distance from human dwellings.

While speaking of the proposed new cemetery, I may suggest to the Committee that it would be an excellent and not very expensive new-departure to erect a crematorium at the same site.

Conservancy and Water-carriage Systems for the Removal of Excreta.

In the autumn of last year I was instructed by you to obtain information and draw up a report upon such points of importance, in connection with the so-called conservancy and water-carriage systems for the removal of excreta existent in the great towns of the three kingdoms, as were likely to be of interest to the sanitary administrators of such a town as Nottingham. I accordingly made a general enquiry upon forms bearing the following queries:—

Name of town?
Its population?
Its acreage?
Existing No. of Midden-privies?
" " Box-, pail-, pan-, or earth-closets?
" " Water-closets?
" " Slop- or waste-water closets?
" " Water-latrines?
Forms of closet most approved by Authority?
Opinion with respect to water-latrines and slop-water closets, and patterns of these, if any, approved?

Opinion as to fitness of ordinary w.c.'s for outside use?
System of sewage disposal in use?
Area of land used for sewage disposal?
Amount of money, if any, voted for conversion of obsolete forms of closets?
Remarks. — Opinions respecting conservancy and water-carriage systems, etc.?

Having received replies from more than a hundred towns, accompanied in 78 cases by permission to publish, I prepared and furnished you with a report containing the major part of the information I had obtained, and the conclusions to be drawn from it. These conclusions I have briefly summarized as follows:—

Conservancy systems on a large scale and in populous districts have had their day. Their place must be taken by some form of water-carriage.

Of all closets, the ordinary single w.c. is undoubtedly the best from a sanitary point of view, and it is clearly the only admissible form for the interior of houses; it is scarcely suitable, however, for the poorer class of house property, and when used in the open air, except where carefully protected, is liable to occasional injury from frost, although this liability would appear to be exaggerated in popular estimation. The best patterns of w.c.'s are the "wash-down" and the "valve."

"Automatic slop- or waste-water closets" are not liable to injury from frost, are not easily disordered or damaged by rough usage, are not so readily choked as w.c.'s, and utilize the domestic waste-water for flushing purposes. They are, therefore, mechanically viewed at any rate, eminently suitable for rough and poor neighbourhoods in towns where sewage-farms and water-supplies have to be considered. It must, however, be borne in mind, that they are liable to become offensive unless carefully cleaned at regular intervals, that the disinfection of their interiors is a matter of difficulty, and that it is almost impossible to prevent the occasional use by householders, for flushing them, of a certain amount of fresh water in excess of that ordinarily used by the house.

"Automatic water-latrines or trough-closets" have many of the mechanical advantages of the waste-water closets, especially for poor neighbourhoods and public institutions, to a large extent without their offensiveness. They are, however, liable to occasional disturbance and injury from frost—their troughs and flushing cisterns being in most cases above ground—and they require a special (clean) water-supply.

Both the last two varieties of closet continue to find favour in those places where they have been most used, and are, therefore, best known. It is, however, absolutely essential to the satisfactory working of both (and of ordinary water-closets also, where these are used for poor neighbourhoods) that a staff of men should be kept by the Sanitary Authority to look after them.

The following is a list of most of our principal towns in which conservancy systems still survive to a considerable extent, with their populations and the number of midden-privies and pail-closets in each:—

Name of Town.	Population.	*Number of Midden-Privies.	Number of Pail- and other like Closets.
Accrington ...	40,500 ...	800 ...	2,800
Aston-Manor ...	72,898 ...	10,000 ...	—
Barnsley	35,427 ...	3,891 ...	—
Belfast	275,000 ...	30,000 ...	—
Birmingham ...	492,301 ...	11,500 ...	33,000
Bolton	118,303 ...	14,700 ...	6,759
Bradford	223,985 ...	30,000 ...	—
Burnley	90,000 ...	4,684 ...	904
Burton-on-Trent ...	47,500 ...	3,817 ...	4,576
Chatham	31,657 ...	3,500 ...	—
Darlington	38,060 ...	6,087 ...	191
Darwen	36,000 ...	30 ...	6,946
Derby	98,795 ...	7,275 ...	4,777
Dudley	47,000 ...	5,000 ...	37
Gateshead	85,692 ...	6,000 ...	10,000
Halifax	92,000 ...	1,500 ...	13,373
Hanley	56,547 ...	3,270 ...	3,440

Name of Town.	Population.	*Number of Midden-Privies.	Number of Pail- and other like Closets.
Huddersfield ...	98,511 ...	2,000 ...	15,000
Hull	212,679 ...	47,500 (of all sizes)	100
Ipswich	58,610 ...	9,600 ...	90
Leeds	388,761 ...	17,214 ...	1,413
Leicester	184,547 ...	2,080 ...	7,639
Manchester... ...	515,567 ...	25,000 ...	78,726
Middlesboro' ...	80,300 ...	3,400 ...	8,195
Newcastle-on-Tyne	201,947 ...	2,900 ...	4,300
Norwich	105,000 ...	12,000 ...	3,500
Nottingham ...	223,580 ...	500 (circ.)	40,253
Oldham	138,000 ...	76 ...	23,381
Preston	111,425 ...	20,000 ...	—
Rochdale	71,401 ...	120 ...	13,593
St. Helen's	77,690 ..	5,021 ...	6,727
Salford	205,828 ...	13,983 ...	8,990
Scarboro'	33,776 ...	8,000 ...	—
Sheffield	338,316 ...	20,000 ...	—
Smethwick	36,170 ...	8,414 ...	—
South Shields ...	87,045 ...	11,150 (of all sizes)	—
Stockport	73,000 ...	6,000 ...	—
Stoke-on-Trent ...	26,000 ...	4,364 ...	—
Tynemouth	47,175 ...	2,000 ...	3,000
Wakefield	33,146 ...	1,847 ...	1,274
Warrington ...	49,124 ...	30 ...	10,506
West Bromwich ...	60,000 ...	7,000 ...	—
Widnes	30,612 ...	5,102 ...	—
Wigan	57,000 ...	64 ...	8,400
Wolverhampton ...	85,000 ...	— ...	14,000
York	67,926 ...	7,787 ...	61

* There are two privies to one pit in most cases.

Hull, Rochdale, Warrington, and Darwen are the only towns, included in my inquiry, in which a continuance and extension of the pail system is advocated and practised. Midden-privies, as may be seen by the above list, still exist in huge numbers in many towns, but the midden system (in any form) is almost exclusively without defenders at the present time.

Notices issued by the Health Department during 1894:—

Statutory Notices under the Public Health Act.....	516
Other Notices	703
	1219

The Statutory Notices are of almost exactly the same number as in the previous year, but the ordinary notices shew a falling off corresponding more or less with the decline in the number of nuisances dealt with during the year, to which allusion is made in the section devoted to the routine work of the District Inspectors.

Prosecutions:—

SALE OF FOOD AND DRUGS ACTS.

Offence.	Result.
Sale of Milk deficient in fat 40%.....	Dismissed on technical objection, that nature of adulteration was not stated on information.
,, ,, ,, 10%.....	,, ,, ,,
,, Margarine as Butter	.....Fine of 10/-.
,, Adulterated Butter	Dismissed on technical objection (see above).
,, Milk containing 7% added water	.....Fine of £1.
,, ,, ,, 7% ,,	..... ,, £1.
,, ,, ,, 10% ,,	..... ,, £1.
,, ,, ,, 11% ,,	..... ,, £1.
,, ,, ,, 12% ,,	..... ,, £1.
,, ,, ,, 17½% ,,	..... ,, £2.
Refusal to sell sample for analysis	..... ,, £1.

PUBLIC HEALTH AND OTHER ACTS.

Offence.	Result.
Exposure for sale of "unsound Meat" carcase	.....Fine of £15.
,, ,, ,, live Sheep in market	..... ,, £5.
Deposit of unsound Meat for sale	..... ,, £20.
Exposure ,, Fish ,,	.....1 month or ,, £2.
Sale of ,, Pears ,,	.....Dismissed.
Failure to deliver up Bedding for disinfection	.....Fine of £1.
Exposure of Children suffering from Scarlet Fever—2 cases	..Fine of £5 in each case.
,, Cotton material to infection of Small-pox	.....Fine of £1 10s.
Lodging house dirty, no utensils, dirty bedding—4 offences	..Fine of £1 for each offence.
Dirty bed-clothes in lodging house	..... Fine of 2/6.
Unregistered lodging house	..... ,, 2/6.
,, ,, ,,	..... ,, 10/-.
,, ,, ,,	..... ,, 10/-.
Breach of Swine Fever regulations	..... ,, £1.
Polluted well	....."Order to close."

Abatement of Nuisances.

(a) General Table.

Description of Work done.	Inspector Copley.	Inspector Old.	Inspector Byrne.	Inspector Betts.	Total.
Houses repaired	7	2	11	5	25
Houses cleaned	2	..	7	1	10
Houses overcrowded	2	2	2	1	7
Bath-wastes disconnected	10	1	11	7	29
Bath-wastes trapped	2	1	1	1	5
Sink-wastes disconnected	26	2	101	22	151
Sink-wastes trapped	..	..	2	..	2
Drains repaired and cleansed	141	156	230	168	695
Drains trapped	81	70	106	98	355
Water closets repaired	35	15	50	76	176
Pail closets repaired	150	72	123	68	413
Pail closets provided	69	55	10	61	195
Waste-water closets provided	3	..	1	5	9
Ashpits abolished	49	29	38	51	167
Privies abolished	85	44	23	83	235
Water Closets provided in lieu of privies	5	7	18	26	56
Soft water cisterns cleansed	14	8	14	18	54
Courts and yards paved	28	88	49	47	212
Piggeries abolished	7	19	6	9	41
Stables, &c., drained	3	5	3	7	18
Urinals repaired, &c.	5	1	5	14	25
Manure pits repaired, &c.	2	3	4	4	13
Offensive accumulations removed	30	41	25	24	120
Miscellaneous	14	8	23	12	57
Totals	770	629	863	808	3070

(b) Workshops.

Inspector Flint. (Male).

Work done.

Workshops and bakehouses limewashed	330
Insanitary workshops and bakehouses closed	4
Drains removed from bakehouses	8
Workshops and bakehouses repaired	23
Sink-wastes repaired and trapped	7
Overcrowding abated in workshops	4
Additional ventilation provided in workshops and bakehouses	5
Offensive refuse removed	7
Water-closets repaired	2
	390

Inspector Hawksley. (Female).

Work Done.

Workrooms limewashed	114
Workrooms painted	5
Additional ventilation provided in workrooms	5
Additional ventilation provided in W.C.'s and other offices	8
Overcrowding abated in workrooms	18
Additional exit provided	2
Wooden floors substituted for stone	2
Chappuis' Daylight Reflector provided	1
	155

Inspection of Workshops in which Males are employed.

Branch of Trade.	Number of Workshops.	Number of Employees.	Number of Visits.
Aerated Water Manufacturers	19	170	38
Bakers and Confectioners	250	496	1470
Bamboo Furniture Maker	1	4	2
Basket Makers & Wicker Workers	34	279	80
Beer Bottlers	4	64	11
Bicycle Makers	10	75	15
Blacksmiths	60	126	85
Box Makers	6	57	6
Boat Builder	1	3	1
Bobbin and Carriage Maker	1	10	1
Boot and Shoe Makers	60	288	90
Brewers	2	18	3
Brass Founders	2	6	2
Brass Workers	2	12	2
Brick Makers	3	95	3
Brush Makers	6	38	9
Cabinet Makers	24	375	65
Card Punchers	7	30	10
Carvers and Gilders	2	6	2
Chair Makers	3	12	3
Chemists (Manufacturing)	2	45	3
Clog Maker	1	7	2
Coachbuilders and Wheelwrights	31	204	65
Confectioners and Sugar Boilers	10	82	21
Coopers	6	50	11
Copper Smith	1	2	2
Corn and Seed Merchants	2	40	3
Cycle Enamellers	3	7	6
Dropper and Box Makers	3	10	6
Druggist, Wholesale	1	12	2
Electrical Engineer	1	20	2
Engravers	2	4	2
Engineers and Machinists	6	85	9
Fellmonger	1	7	2
Fire-wood Merchants	5	20	6
Framesmith	1	10	2
Framework-knitters	20	144	40
Furniture Painters & Polishers	5	16	2
General Smiths	15	55	20
Gut Cleaners	9	20	20
Hatter	1	1	1
Hosiery Manufacturers	9	170	9
Hosiery Trimmers	2	14	4
Ice Cream Makers	4	6	8

Branch of Trade.	Number of Workshops.	Number of Employees.	Number of Visits.
Implement Makers (Agricultural)	2	12	2
Iron Founders	3	30	4
Joiners and Builders	102	458	155
Lace Designers	2	15	4
Lace Manufacturers	8	206	9
Lath Benders	2	5	3
Leather Dressers	6	27	12
Lime Light Operator	1	5	2
Maltsters	6	24	6
Marine Store Keepers	16	45	27
Mattress Makers	4	20	6
Needle Makers	4	14	6
Optician	1	2	2
Packing Case Makers	4	30	7
Painters and Decorators	11	60	14
Paper Merchants	2	36	2
Paper Rulers	2	8	3
Perambucot Makers	5	61	10
Picture Frame Makers	3	10	4
Pipe Clay and Pipe Makers	4	14	8
Plaster Cast Maker	1	3	2
Plumbers	34	101	59
Rope and Twine Makers	3	25	4
Sack and Cover Makers	2	4	2
Saddlers	19	60	26
Sauce Manufacturers	4	10	9
Scale Maker	1	2	1
Screw Maker	1	1	1
Sculptors and Stonemasons	9	28	12
Setter-up of Lace Machines	1	2	1
Silk Hosiery Makers	3	25	8
Sinker Makers	3	12	5
Size and Glue Makers	2	16	3
Soap Makers	4	35	7
Spring and Point Makers	3	20	3
Stay and Corset Maker	1	3	1
Steel Bar Makers	2	7	2
Stonemasons	9	50	14
Surgical Hosiery Makers	5	28	6
Tailors	85	441	195
Tallow Chandlers	2	5	6
Ticket Writers	3	7	3
Tin Plate Workers	33	78	67
Trunk Maker	1	1	1
Undertakers	8	30	12

Branch of Trade.	Number of Workshops.	Number of Employees.	Number of Visits.
Upholsterers	9 ..	46 ..	11
Venetian Blind Makers ..	2 ..	12 ..	2
Watch Makers	2 ..	4 ..	2
Waggon Builder	1 ..	9 ..	1
Warpers	2 ..	2 ..	2
Whip Makers	4 ..	17 ..	6
Whitesmiths	8 ..	23 ..	8
	1103	5384	2924

Inspection of Workshops in which Females are employed.

Trade.	Number of Workshops.	Number of Employees.	Number of Visits.
Box Makers	26 ..	259 ..	51
Book Folder	1 ..	20 ..	4
Bed and Mattress Maker ..	1 ..	3 ..	2
Boot and Shoe Maker	1 ..	2 ..	2
Bonnet Front Maker	1 ..	16 ..	1
Corset Makers	2 ..	5 ..	4
Curtain Dressers	2 ..	3 ..	3
Cricket Outfitter	1 ..	6 ..	1
Cap and Cap-shape Makers ..	5 ..	48 ..	10
Cigar Box Maker	1 ..	10 ..	3
Cork Sock Manufacturer ..	1 ..	8 ..	2
Dressmakers	256 ..	1075 ..	456
Embroiderers	4 ..	17 ..	6
Furrier	1 ..	1 ..	1
Hosiery Manufacturers ..	21 ..	781 ..	37
Hair Net Manufacturer ..	1 ..	4 ..	3
Lace Menders	17 ...	225 ..	23
Laundresses	11 ..	74 ..	20
Lace Clippers and Chenille Spotters	50 ..	591 ..	145
Lace Manufacturers	193 ..	2958 ..	329
Marine Store Keepers	7 ..	40 ..	17
Makers up of Hosiery	25 ..	292 ..	52
Milliners	36 ..	157 ..	57
Makers-up of Underclothing ..	3 ..	3 ..	3
Pneumatic Tyre Makers ..	2 ..	7 ..	3
Paper Bag Makers	2 ..	10 ..	3
Perambucot Makers	1 ..	3 ..	2
Pipe Maker	1 ...	4 ..	2
Salt Packer	1 ..	3 ..	1
Shirt Makers	4 ..	18 ..	7
Surgical Appliance Makers ..	2 ..	12 ..	5

Trade.	Number of Workshops.	Number of Employees.	Number of Visits.
Sun Bonnet, Mob Cap, & Apron Manufacturers	23	323	35
Sugar Boilers	2	8	2
Straw Hat Cleaner	1	1	1
Tailors	49	288	101
Upholsterers	10	44	18
	765	7319	1412

Bakehouses in Nottingham, 1894.

Bakehouses in use	256
„ underground	88
„ partly underground	23
Underground Bakehouses approached from interior of premises only	47
,, ,, ,, from outside only	27
,, ,, with entrance from both inside and outside..	14

The largest Bakehouse is above ground, and contains a space of 18,000 cubic feet. This Bakehouse is 10 ft. 8 in. in height, and is efficiently ventilated at the highest point of the walls.

The smallest Bakehouse contains a space of 450 cubic feet.

The greatest number of men working in any one Bakehouse is 13.

The minimum height of any Bakehouse from floor to ceiling is 6 ft. 6 in.

APPENDIX.

Mr. SWAINE, the General Manager of the Sanitary Depots, furnishes the following statistics:—

Collection and Disposal of Refuse.

Number of Pails Collected, 14 Years ending 31st December, 1894.

YEAR.	NOTTM.	BASFORD AND BULWELL.	RADFORD AND LENTON.	TOTAL.	WEEKLY AVERAGE.
1881	1,009,323	168,105	117,432	1,294,860	24,901
1882	1,162,665	301,833	184,107	1 648,605	31,703
1883	1,309,917	407,820	254,667	1,972,404	37 930
1884	1,431,399	480,443	329,057	2,240,899	43,094
1885	1,473,833	513,822	365,211	2,352,866	45,247
1886	1,505,784	541,086	375,270	2,422,140	46,579
1887	1,555,937	535,950	423,885	2,515,772	48,380
1888	1,514,633	532,730	417,186	2,464,549	47,395
1889	1,482,102	535,206	418,806	2,436,114	46,848
1890	1,485,880	547,659	425,586	2.459,125	47,290
1891	1,503,674	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

Pails in use - - - - - - - -	40,414
Ashpits cleared (exclusive of Basford and Bulwell) -	3,452
Dry-Ash-Tubs in use - - - - - -	4,041
Dry-Ash-Covers in use - - - - - -	1,019

Number of Loads Collected.

	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894
Nottingham.—Pail Closets ..	62,377	68,161	70,182	71,704	74,092	72,125	70,576	70,756	71,603	72.570	72,657	74,267
Night Ashpits	7,184	7,403	5,034	4,116	3,645	3,408	3,056	2,775	2,939	2,896	2,418	2,287
Dry Ashpits and Dry Ash Tubs	6,115	5,935	7,704	8,153	8,038	7,495	7,588	7,170	7,199	7,463	8,301	8,378
Slaughter House ..	717	885	887	858	906	867	884	907	975	973	969	975
Pot Cart	371	502	483	489	490	485	483	499	849	916	1,229	1,286
Basford and Bulwell.— Pail Closets	19,420	22,878	24,467	25,766	25,521	25,368	25,485	26,079	26,672	27,622	27,986	28,826
Radford & Lenton } Pail Closets ..	12,127	15,669	17,391	17,870	20,185	19,866	19,943	20,266	20,587	21,271	21,141	21,219
Radford & Lenton } Night Ashpits..	4,642	3,916	3,324	3,062	2,271	2,206	2,238	2,163	2,182	2,047	1,973	1,967
Totals	111,953	125,349	129,472	132,018	135,148	131,820	130,253	130,615	133,006	135,758	136,674	139,205
Weekly Averages ..	2,152	2,410	2,489	2,538	2,599	2,535	2,504	2,511	2,557	2,610	2,629	2,677

Disposal of Refuse.

	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894
Number of Wagons sent out ..	2,027	1,863	2,653	3,203	4,022	4,628	4,753	4,940	4,994	4,999	4,342	3,669	3,510	4,481	4,085
Average Weight of Night-soil per Truck ..	..	..	..	..	..	T. c. q. 8·1·2	T. c. 8·2	T. c. q. 7·19·2	T. c. q. 7·17·2	T. c. 7·16	T. c. 7·16	T. c. 8·0	T. c. q. 8·1·1	T. c. q. lb. 7·17·3·20	T. c. q. lbs. 7·19·0.18
Number of Boats sent out ..	550	576	554	585	646	555	327	371	350	293	278	247	547	320	415
Average Weight of Night-soil per Boat	..	..	..	..	..	T. c. 35·10	T. c. 37·0	T. c. 35·10	T. c. q. 38·11·2	T. c. q. 37·10·3	T. c. q. 36·13·1	T. c. q. 35·0·2	T. c. q. 34·10·3	T. c. q. lbs. 32·10·3·21	T. c. q. lbs. 32·6·2·9

HANDBILLS.

Borough 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 kind. 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 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.

Diarrhœa mixture may be obtained without payment, by poor persons, at the Police Stations of the Borough, or in the Health Department at the Guildhall.

PHILIP BOOBBYER,

Guildhall, Nottingham. *Medical Officer of Health.*

Borough of Nottingham. Prevention of Tubercular Consumption.

This disease is infectious, and liable to spread among persons living in contact with those suffering from it.

Where the lungs are principally affected, the spit of the patients contains most of the poison. This should be received into a vessel containing a strong solution of Carbolic Acid (1 of Carbolic to 40 of Water), and all washing materials and utensils soiled by the patients should be soaked in the same solution before being washed.

Consumptive patients should always sleep alone.

The rooms of consumptive patients should be aired every day, and disinfected and cleaned at least once a month.

In case of the death or removal of any consumptive patient, the Health Department will undertake the disinfection of the infected house and materials.

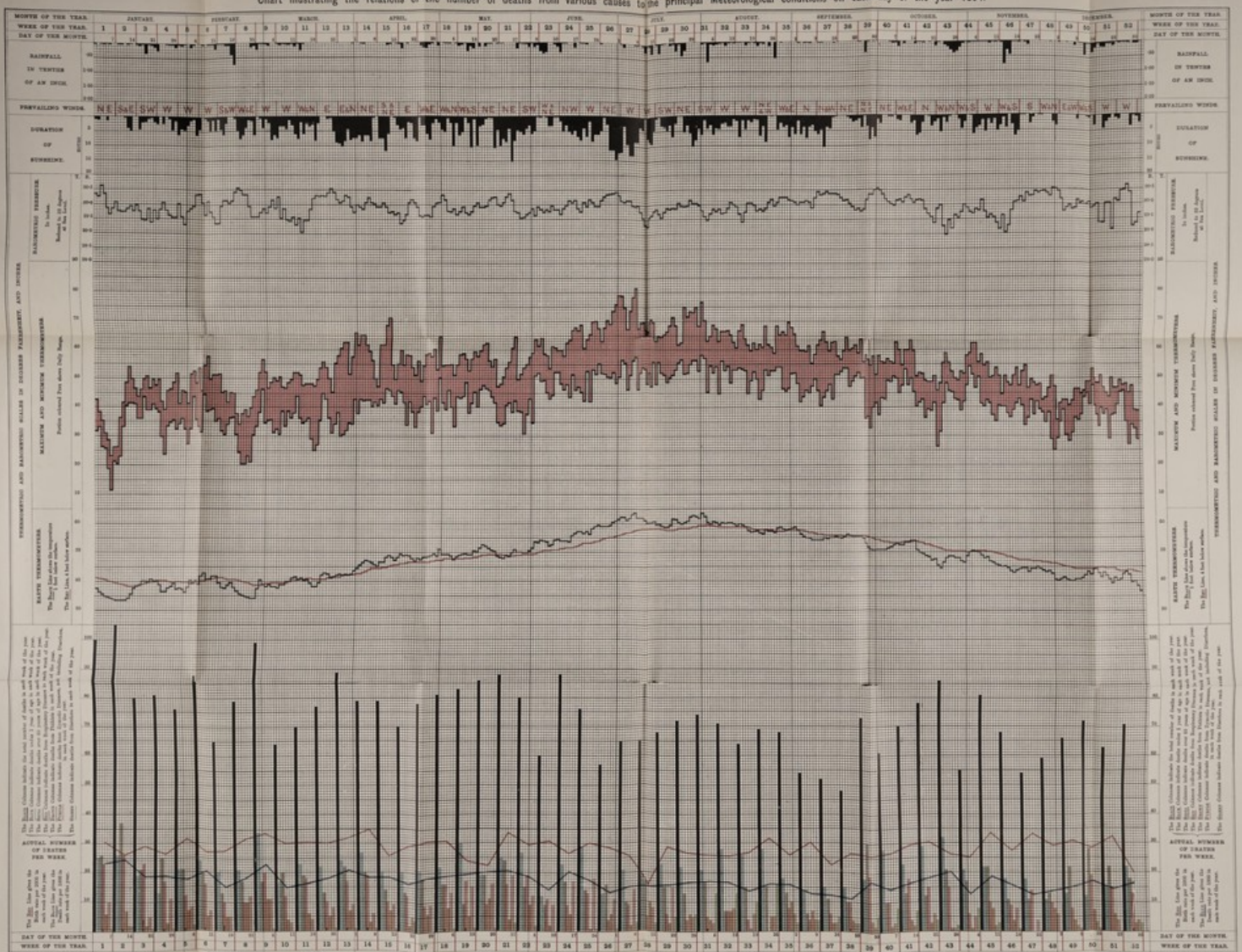
PHILIP BOOBBYER,

Guildhall, Nottingham. *Medical Officer of Health.*

CONTENTS.

Borough of Nottingham.

Chart illustrating the relations of the number of deaths from various causes to the principal Meteorological conditions on each day of the year 1894.



The actual number of Deaths from Epidemic Influenza is indicated by a vertical Black line in the column representing deaths from Respiratory Diseases.

Estimated Population of Borough, middle of 1894...213,564
" " " 1895...216,633
Area of Borough...10,255 acres.

Total Births during the year, 6,373.
Birth Rate per 1000 of population per annum, 28.57.

Total Deaths (less those of persons coming from outside the town), 3,736.
Death Rate per 1000 of population per annum, 17.00.

ARTHUR BROWN, M. Inst. C.E.,
Borough Engineer.
PHILIP BOOBBYER, M.B.,
Medical Officer of Health.