

[Report 1905] / Medical Officer of Health, Newcastle-upon-Tyne City & County.

Contributors

Newcastle upon Tyne (England). City & County Council.

Publication/Creation

1905

Persistent URL

<https://wellcomecollection.org/works/a77s722v>

License and attribution

You have permission to make copies of this work under a Creative Commons, Attribution license.

This licence permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See the Legal Code for further information.

Image source should be attributed as specified in the full catalogue record. If no source is given the image should be attributed to Wellcome Collection.



Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>

AC 4478



CITY AND COUNTY OF NEWCASTLE-UPON-TYNE.

THIRTY-THIRD

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

ON THE

Sanitary Condition of Newcastle-upon-Tyne.

WITH

TABULAR RETURNS

OF THE

SICKNESS AND MORTALITY

DURING THE YEAR, 1905.

Newcastle-upon-Tyne :
EASEY & BEST, 142, PILGRIM STREET.

1906.



WITH THE COMPLIMENTS OF THE
MEDICAL OFFICER OF HEALTH.



CITY AND COUNTY OF NEWCASTLE-UPON-TYNE.

THIRTY-THIRD

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

ON THE

Sanitary Condition of Newcastle-upon-Tyne,

WITH

TABULAR RETURNS

OF THE

SICKNESS AND MORTALITY

DURING THE YEAR, 1905.

Newcastle-upon-Tyne :

EASEY & BEST, 142, PILGRIM STREET.

1906.

CONTENTS.

GENERAL STATISTICS—	PAGE.
Rates of Mortality from "All Causes" and the seven "Chief Zymotic Diseases," 1870-1905	12
Deaths from each of the "Chief Zymotic Diseases" in each quarter of 1905	13
Infant Mortality	14
Uncertified Deaths	14
Marriages	14
INFECTIOUS DISEASE INQUIRY—	
Cases of Infectious Disease	15
Different Diseases in the respective Wards of the City	15
No. of Households, &c., in which Infectious Disease was notified... ..	16
Scarlet Fever and School Attendance	16-17
Diphtheria in relation to Milk Supply	17
Enteric Fever in relation to Milk Supply	18
Puerperal Fever	18
Infectious Disease Inquiry and Disinfection	18
Cases of Infectious Disease in Public Institutions	18
CITY HOSPITAL FOR INFECTIOUS DISEASES—	
Admissions, &c.	19
SMALLPOX HOSPITAL, TOWN MOOR	20
PERCENTAGE OF CASES REMOVED TO HOSPITAL TO CASES NOTIFIED IN THE SAME FORM OF PRACTICE	20
MAINTENANCE OF PATIENTS IN HOSPITAL	20
SUMMARY OF REPORTS MADE	20-22
WORK OF THE INSPECTORS OF THE HEALTH DEPARTMENT—	
Report of the Inspector of Nuisances, New House Drainage, Common Lodging Houses, Workshops, and Adulteration	23-29
Report of the Inspector of Cattle, Slaughter Houses, Cow-sheds, and Provisions	30-31
HOUSES BUILT DURING THE YEAR—	
Accommodation provided	32
PLANS—Sanitary Alterations	32

APPENDIX A.

	PAGE.
Births and Deaths in City and Sub-districts. Numbers (Table I.) ...	33
Number of Deaths from different causes, City and Sub-district. (Table II.)	34-37
Annual Death-rate from "All Causes," and from the seven "Chief Zymotic Diseases"—Newcastle and Large Towns compared (Table III.) ...	38
Ages at Death (Table IV.) ...	38
City Hospital for Infectious Diseases (other than Smallpox)—Admissions and Deaths (Table V.) ...	39
Smallpox and "Contact" Isolation Hospitals—Admissions, Deaths, &c. (Table VA.) ...	39
Infected Articles destroyed and replaced by Health Department (Table VI.)	40
Infected Articles purified in Disinfecting Apparatus (Table VIA.) ...	40
Provisions—Inspection Returns (Table VII.) ...	41
Nuisance Removal Returns (Table VIII.) ...	42
Works carried out in the Abatement of Nuisances (Table IX.) ...	43
Magisterial Proceedings (Table X.) ...	44-46
Food and Drugs Adulteration Acts—Analyses (Table XI.) ...	47-53
Common Lodging Houses, &c. (Tables XII. and XIIA.) ...	54
Health Visitors—Work done by (Table XIII.) ...	55

APPENDIX B.

Report on the Premises used for the Manufacture of Ice-cream.

APPENDIX C.

SALE OF FOOD AND DRUGS ACTS—MILK ANALYSIS—

Report to the Sanitary Committee on the Circular of the Board of Agriculture to Local Authorities, dated 28th December, 1901, and on the Board's letter of 27th March, 1905.

APPENDIX D.

Midwives' Act, 1902. Summary of replies to queries.

APPENDIX E.

Diphtheria, its extent and fatality in the large provincial towns of England and Wales, and in the Hospitals of the Metropolitan Asylums Board during the years 1894-1904 inclusive, in relation to the use of Antitoxic Serum in the treatment of the disease.

APPENDIX F.

Report on the Epidemic of Smallpox from 18th March, 1903, to 14th September, 1905.

TO MR. ALD. H. W. NEWTON, J.P., L.F.P.S., CHAIRMAN OF THE
SANITARY COMMITTEE OF THE CORPORATION OF NEWCASTLE-
UPON-TYNE.

SIR,

Herewith I beg to submit to you my Thirty-third Annual Report, viz., that for the year 1905.

The *Death-rate* (uncorrected) of Newcastle from "All Causes" during the year was 17·4 per 1,000 population. This rate is the lowest on record. (See page 12). Details as to the general mortality in the different Registration Sub-districts will be found at pages 33-37. The *Death-rate* (uncorrected) from the seven "Chief Zymotic Diseases," *i.e.* Smallpox, Measles, Scarlet Fever, Diphtheria, Whooping Cough, "Fever," and Diarrhoea† in Newcastle was 1·3 per 1,000 population, against a corresponding rate of 1·88 for the 76 largest English towns. (See page 38.)

Marriages (see page 14). In the year ended 31st March, 1905, 2,181 marriages were registered in the Registration District of Newcastle-upon-Tyne (which includes the sub-district of Benwell and Fenham, but not that of Walker), an increase of 48 on the number (2,133) during the previous twelve months.

Zymotic Diseases caused 348 deaths, against 342 in the previous year. The most prominent of these diseases were Diarrhoea,† Whooping Cough, and Diphtheria (including Membranous Croup), from which 144, 88, and 52 deaths occurred respectively, against 99, 124, and 31 in the previous year. (See page 13).

The number of deaths from *Scarlet Fever* was 14 against 25* in the previous year. The mortality from that disease per

†Dysentery, Epidemic and Zymotic Enteritis, and Intestinal Catarrh included.

* Corrected by distribution of those of persons belonging to the City, occurring in the City Hospital for Infectious Diseases, which up to November, 1904, was in the Urban District of Walker.

cent. to cases notified was 2·0, as compared with a rate of 2·8 for the year 1904. 705 cases of Scarlet Fever were notified, a decrease of 181 on the returns of the year before.

Enteric (or Typhoid) Fever caused 11 deaths, against 7* in the previous year. The rate of mortality to cases notified was 22·0 per cent., as compared with 23·3 in the year 1904. The number of cases notified (50) shews an increase of 20 on the previous year's return.

Typhus.—No case of Typhus occurred during the year.

Diphtheria and Membranous Croup caused 52 deaths, against 47* in 1904. The rate of mortality to cases was 18·1 per cent., as against 20·0 in the previous year. The total number of cases (288) notified shews an increase of 53 on those of the previous year.

Hospitals for Infectious Diseases.—502 patients were admitted to the City Hospital for Infectious Diseases at Walker Gate. The proportion of patients in private medical practice removed to Hospital was 45·5 per cent. of the cases notified in the same form of practice. The proportion of cases notified in public practice (including those of the Dispensary) removed to Hospital was 62·2 per cent. The mortality to cases was 5·8 per cent. Details are given on pages 19 and 39.

Smallpox Hospital.—103 cases of Smallpox were admitted during the year, 2 of which died. 449 "contacts" were isolated in Hospital, and 2,001 other persons were kept under observation at their homes. The last case of Smallpox was notified on the 24th August. For details see Table V., page 39.

* Corrected by distribution of those of persons belonging to the City, occurring in the City Hospital for Infectious Diseases, which up to November, 1904, was in the Urban District of Walker.

The Notification of Chickenpox.—Voluntary notification of the disease continued in operation until the close of the Smallpox epidemic (Aug. 24).

The number of *cases of Infectious Diseases notified* by medical practitioners (see page 15) is 1,860, including 496 Chickenpox, against 2,242 in the previous year.

Infant Mortality.—The deaths of infants under one year of age (1,166) shew an increase of 99 on the returns for the year before (see page 14.)

The *Uncertified Deaths* registered are 24, against 12 in the preceding year.

Bacterial Examinations for Medical Practitioners.—The Sanitary Committee, near the close of the year 1904, agreed to defray for Medical Practitioners in the City, the cost of bacterial examinations of specimens for the diagnosis of Tuberculosis, Diphtheria, and Enteric Fever. This work has during the year been carried out at the College of Medicine. The following is a return shewing the number of specimens examined, together with the results of the examinations:—

	No. of Specimens.	RESULTS OF EXAMINATIONS.		
		Positive.	Negative.	Doubtful.
Tubercle	186	68	118	—
Diphtheria	179*	41	138*	—
Enteric Fever	24	8	14	2
Cholera Nostras.	1	—	1	—
TOTAL	390	117	271	2

* Includes 87 Specimens from contacts at a Public Institution.

Bacterial Examination of Water.—The Bacterial Examination of Water Supply has been continued by Professor George Murray as hitherto. Four specimens, drawn from taps in different parts of the City, have been examined each month of the year. The results are tabulated on the following page:—

SUMMARY OF RESULTS.

Sample No.	Date of Collection.	GELATINE PLATE CULTIVATION FROM 1 C.C. OF WATER.			STRONG SMELL BY GROWTH OF BACTERIA.		CONDITION.				REMARKS.
		BACTERIA FOUND.					Very Satisfactory.	Satisfactory.	Fairly Satisfactory.	Not Satisfactory.	
		Number Liquefying Gelatine.	Number not Liquefying Gelatine.	Total.	No.	Yes.					
1	1905.	38	263	301	...	1	...	...	1	...	Liquefying Bacteria, nearly all of same species.
2	Jan.	42*	296	338	1	...	...	...	...	1	
3	10	42	275	317	1	...	...	...	...	1	
4		28	137	165	1	...	...	1	...	...	
1		30	168	198	...	1	...	1	...	...	
2	Feb.	30	132	162	...	1	...		...	...	
3	7	23	120	143	1	...	...		...	...	
4		22	100	122	1	...	...		...	...	
1		20	56	76	1	...	1	...	...	...	
2	Mch.	15	73	88		...		...	...	...	
3	7	29	52	81		...		...	...	...	
4		25	34	59		...		...	...	...	
1		49	113	162	1	...	...	1	...	...	
2	April	7	37	44		...	1	...	...		
3	3	18	84	102		...	...	1	...		
4		3	58	61		...	1	...	...		
1		4	38	42	1	...	1	...	...	...	
2	May	11	49	60		...		...	...	...	
3	2	13	60	73		...		...	...	...	
4		6	48	54		...		...	...	...	
1		68	57	125	1	...	1	...	...	...	
2	June	65	93	158		...		...	...	...	
3	6	50	71	121		...		...	...	...	
4		73	81	154		...		...	...	...	
1		62	168	230	1	...	...	...	1	...	
2	July	32	79	111		...	...	1	...		
3	10	82	273	355		...	...	...	...		
4		40	68	108		...	...	1	...		
1		50	115	165	1	...	1	...	1	...	
2	Aug.	29	52	81		...		...	...	...	
3	8	46	49	95		...		...	...	...	
4		37*	55	92		...		...	...	...	
1		14	19	33	1	...	1	...	...	...	
2	Sept.	28	19	47	1	...		...	...		
3	12	17	25	42	...	1		...	...		
4		42*	18	60	1	...		...	...		
1		28	114	142	1	...	1	...	1	...	
2	Oct.	12	29	41		...		...	...	...	
3	3	10	41	51		...		...	...	...	
4		10	30	40		...		1	...	...	
1		13	85	98	1	...	1	...	...	...	
2	Nov.	24	180	204	...	1	...	...	1	...	
3	14	11	105	116	1	...	...	1	...	...	
4		315	31	346	...	1	...	...	...	1	
1		4	16	20*	1	...	1	...	...	...	
2	Dec.	14	30	44*		...		...	...	...	
3	13	11	18	29		...		...	...	...	
4		1	14	15†		...		...	...	...	

* Estimated from $\frac{1}{2}$ c.c. plate only.

† From 1 c.c. plate only.

THE WORK OF THE HEALTH DEPARTMENT.

The Reports of the Inspectors are given on pages 23 to 31, and the returns of their work will be found in Appendix A, (Tables VII. to XIII).

32,342 *Inspections of Tenement Property* have been made during the year. The number of contraventions of the By-laws returned is 2,661.

1,441 cases of *Nuisance, &c.* have been ordered to be taken before the magistrates. For details see Table X.

Health Visitors.

The report of Inspector Wells on the continued good work of these ladies is given on pages 29 and 55.

Midwives Act, 1902.

According to the Roll issued by the Central Midwives Board in 1905, 68 midwives (residents in Newcastle) had been certified by the Board. Of this number 35 only notified the Medical Officer of Health of their intention to practise during the year.

Notice to persons practising as midwives in the City was given in the local newspapers, and circular letters were also sent to all midwives known to the Health Department, drawing their attention to the provisions of the Act.

A Special Committee, consisting of four medical practitioners, viz.:—Alderman Dr. H. W. Newton, Chairman of the Sanitary Committee; Alderman Dr. A. Wilson, Chairman of the Health Department Sub-Committee; Councillor Dr. J. R. Mason and Councillor Dr. W. Tiplady, members of the Sanitary Committee, were appointed to carry out the provisions of the Act, together with the Medical Officer of Health as Chief Executive Officer under the Act.

It was decided to appoint a Superintendent of Midwives at a salary of £100 rising to £120 in two years, with uniform. The appointment was not, however, made until March, 1906.

Instructions to Midwives, together with leaflets as to Rearing of Infants, &c., are being distributed by the Superintendent on her rounds.

Customs and Inland Revenue Act, 1890, s. 26 (2).

Applications for certificates entitling the owners to exemption from inhabited house duty have been made during the year in respect of 14 tenement houses. In 4 cases certificates were granted. In the remaining 10 cases certificates were refused, the houses not being in accordance with the requirements.

Factory and Workshop Act.

During the year 30 "workshops" were reported by H.M. Inspector of Factories to the Medical Officer of Health on account of nuisance or sanitary defect. After examination, various insanitary conditions, as specified by the Inspector of Nuisances in his report (pages 27 and 28) were dealt with.

Fire Escape.—For list of places requiring additional means of escape in case of fire reported to the Sanitary Committee by the Medical Officer of Health during the year (See pages 21 and 22).

*Insanitary Dwellings dealt with under the
Newcastle-upon-Tyne Improvement Act, 1882, Sec. 32.*

Paradise Row ; West Pit Cottages ; Paradise West Pit.—These houses were all closed before the end of the year, with the exception of one, which was allowed to be occupied by the caretaker of the adjoining brickyard.

11, 13, Silver Street (common lodging house and tenements). Put into habitable repair in accordance with proposals submitted by the owner and approved by Sanitary Committee.

Crozier's Buildings, St. Ann Street.—Put into habitable repair in accordance with proposals submitted by the owner and approved by Sanitary Committee.

17, Cowgate (common lodging house).—Closed in April, 1905.

1, Blyth Nook.—Closed in May, 1905.

9, Erick Street.—Demolished for street improvements, May, 1905.

8, Eldon Lane.—Put into habitable repair in accordance with proposals made by owner and accepted by the Sanitary Committee.

1, 2, 3, 4, 5, 6, 7, St. Lawrence Square; 1, 2 and 4, St. Lawrence Road.—Closed in July, 1905.

7, Quality Row.—Put into habitable repair in accordance with proposals made by owner, and accepted by Sanitary Committee.

8, Leighton Street.—Ditto.

28, Edward Street (1 room only).—Owner undertook not to use the room as a dwelling.

Total : 42 houses ; 56 holdings.

The following houses, certified as unfit for human habitation in 1904, have been dealt with during the year under report as follows :—

9, St. Mary Street, and 1, 3, 6, 8, 10, 11, 13, Johnson's Entry.

The alterations proposed by the owner and approved of by the Sanitary Committee were completed during 1905. The alterations included the pulling down of some of the houses. Those left standing were allowed to be occupied.

5, Pity Me.—Closed in August, 1905.

16, Cook's Yard, Cut Bank.—This matter is still in abeyance owing to a dispute between the owner and the Corporation.

- 4, Robson's Entry, City Road.—Put into habitable repair in accordance with proposals made by owner, and accepted by Sanitary Committee.

Housebuilding in the City.

New accommodation has been provided for 615 families, against provision for 633 families during the previous year. Details are given on page 32.

I have the honour to be,

Sir,

Your obedient Servant,

HENRY E. ARMSTRONG, D.Hy.,

MEDICAL OFFICER OF HEALTH.

*Health Department,
Town Hall,
Newcastle-upon-Tyne,
rd May, 1906.*

CITY AND COUNTY OF NEWCASTLE-UPON-TYNE.

REPORT, 1905.

GENERAL STATISTICS.

Births and
Deaths (all
causes).

DURING the 52 weeks ended 30th December, 1905, 8,479 births and 4,592 deaths have been registered in the City. The births represent a rate of 32·1 and the deaths a rate of 17·4* per 1,000 of a population of 264,511 at all ages, as estimated by the Registrar General to the middle of the year.

The following is a Table of the recorded rates of mortality from "All Causes," and the seven "Chief Zymotic Diseases," for the year under report and previous years:—

RATES OF MORTALITY PER 1,000 POPULATION OF NEWCASTLE-UPON-TYNE.

A.D.	All Causes.	Average for the Decade.	Seven "Chief Zymotic Diseases."	Average for the Decade.
1870	25·4	...	3·9	
1871	32·2	...	9·3	
1872	26·3	...	4·5	
1873	30·1	...	6·9	
1874	29·2	...	5·5	
1875	26·1	26·2	3·6	4·7
1876	22·7	...	2·6	
1877	22·3	...	2·5	
1878	23·7	...	4·6	
1879	23·5	...	3·9	
1880	22·3	...	3·2	
1881	21·7	...	2·6	
1882	23·0	...	3·3	
1883	25·4	...	4·3	
1884	23·5	23·5	3·2	3·1
1885	26·0	...	4·4	
1886	22·2	...	2·5	
1887	25·2	...	3·3	
1888	20·5	...	1·4	
1889	25·0	...	3·0	
1890	26·2	...	2·1	
1891	23·6	...	2·5	
1892	19·5	...	1·5	
1893	20·9	...	2·3	
1894	18·0	20·6	1·9	1·96
1895	20·0	...	2·1	
1896	18·4	...	1·8	
1897	18·7	...	1·6	
1898	20·9	...	2·2	
1899	20·2	...	1·6	
1900	19·1	...	1·2	
1901	21·2	...	2·2	
1902	19·6	...	1·6	
1903	18·6	...	1·1	
1904	18·8	...	1·5	
1905	17·4	...	1·3†	

* This return now includes all deaths in the City Hospitals for Infectious Diseases. By deducting the deaths in the Royal Infirmary of non-citizens (232), the rate is reduced to 16·5.

† Deducting deaths from diseases not ordinarily notifiable (Whooping Cough, 88; Diarrhoea, 144; Measles, 37), the rate is 0·3.

The number of births and deaths in the different Registration Sub-districts of the City during the year 1905, are given in Appendix A, Table I.

The mortality from the "Chief Zymotic Diseases" during successive seasons of the year is as follows:—

Births and Deaths.

Mortality from Chief Zymotic Diseases.

"CHIEF ZYMOTIC DISEASES."—NUMBER OF DEATHS IN 1905.

REGISTRATION SUB-DISTRICTS AND CITY.																																	
	BENWELL.					ELSWICK.				ST. NICHOLAS'.				ST. ANDREW'S.				ALL SAINTS'.				BYKER.				WALKER.				CITY.			
	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total.	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total.	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total.	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total.	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total.	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total.			
Smallpox ...																																	
Measles ...																																	
Scarlet Fever (Scarlatina)	2	1			3	1				1	1				2						1												
Diphtheria...																																	
Membranous Croup																																	
Whooping Cough ...	1	1	1		3	4	3	4	4	15	4	6	6	1	17		1	2	6	9	3	5	1	8	4	5	3	12	25	1			
Typhus Fever ...																																	
Enteric (or Typhoid) Fever																																	
Simple Continued or Ill-defined Fever ...																																	
Diarrhœa (including Dysentery, Epidemic or Zymotic Enteritis, and Intestinal Catarrh.																																	
TOTALS ...	3	5	22	6	36	10	5	22	15	52	10	9	32	6	57		6	3	11	9	29	10	7	18	6	41	9	22	41	16	88	11	

* Representing a Rate of 1·3 per 1,000 population.

Diarrhoea,
Whooping
Cough,
and
Diphtheria.

The most fatal Zymotic diseases have been Diarrhoea (including Dysentery, Epidemic and Zymotic Enteritis, and Intestinal Catarrh), Whooping Cough, and Diphtheria (including Membranous Croup) from which 144, 88, and 52 deaths respectively are returned.

INFANT MORTALITY.

Infant
Mortality.

The number of Infants dying before the completion of the first year of life is 1,166, as compared with 1,067, 1,142 and 1,010, respectively in 1904, 1903, and 1902.

REGISTRATION SUB-DISTRICTS.				Deaths of Children under 1 year of age.	Rates per cent. of Deaths under 1 year to Births registered.
				1905.*	1905.*
Benwell	...	...	...	106	11·1
Elswick	...	...	...	214	12·6
St. Nicholas'	...	...	...	177	16·4
St. Andrew's	...	...	...	112	14·0
All Saints'	...	...	...	158	16·2
Byker	...	...	...	321	13·1
Walker	...	...	...	78	15·0
City	...	...	...	1,166	13·8

* After the incorporation of the districts of Benwell, Fenham and Walker with Newcastle in November, 1904, the Registration Sub-districts were altered, consequently the figures for the year under report are of little or no use for comparison with previous years.

UNCERTIFIED DEATHS DURING THE YEAR 1905.

Uncertified
Deaths.

24 deaths have been registered for which no proper medical certificate has been given or inquest held, as compared with 12 during the previous year.

MARRIAGES.

Marriages.

The number of marriages registered in Newcastle-upon-Tyne (Superintendent Registrar's district†), during each of the past ten years (1896-1905), is as under:

Year ended March 31.	Number of Marriages.	Year ended March 31.	Number of Marriages.
1896	1,983	1901	2,077
1897	2,173	1902	2,277
1898	2,208	1903	2,167
1899	2,370	1904	2,133
1900	2,288	1905	2,181

† Includes the old Municipal area and the Townships of Benwell and Fenham, which were incorporated in November, 1904.

INFECTIOUS DISEASE INQUIRY.

CASES OF INFECTIOUS DISEASE KNOWN TO THE HEALTH DEPARTMENT.

Notification
of Infectious
Disease.

During the year under report the following cases of Infectious Disease have been made known to the Medical Officer of Health by medical practitioners and otherwise.

					CASES KNOWN TO THE HEALTH DEPARTMENT.	
					1905. Including added areas of Walker, and Benwell, and Fenham.	1904. City as before extension.
Smallpox	...	...	...	...	103	351
Chickenpox*	...	...	...	...	496	525
Scarlet Fever	...	...	...	...	705	886
Diphtheria	...	...	...	...	272	223
Membranous Croup...	...	...	...	...	16	12
Typhus	...	...	...	...	—	—
Enteric (or Typhoid) Fever	...	...	...	...	50	30
Simple Continued Fever	...	...	...	...	—	3
Puerperal Fever	...	...	...	...	5	5
Erysipelas	...	...	...	...	213	206
Relapsing Fever	...	...	...	...	—	1
TOTAL...	...	...	...	...	1,860	2,242

A Return to the Local Government Board of the Notifications during the previous week continues to be forwarded each Monday morning during the year, on the form supplied for the purpose.

The following Table shows the different diseases in the respective Wards of the City:—

Infectious
Diseases
in the
respective
Wards of
the City.

WARDS.	Smallpox.	Chicken-pox.*	Scarlet Fever.	Diphtheria.	Membranous Croup.	Enteric (or Typhoid) Fever.	Puerperal Fever.	Erysipelas.	TOTAL.
Benwell	12	41	75	14	1	5	...	22	170
Fenham	...	17	29	17	1	1	...	7	72
Elswick East	10	25	20	2	...	...	...	2	59
Elswick North	4	23	74	20	...	1	...	6	128
Elswick South	4	27	66	11	2	2	1	35	148
Arthur's Hill	3	44	94	39	...	4	...	28	212
Westgate North	1	13	36	10	1	3	1	16	81
Westgate South	8	25	11	8	...	6	...	8	66
St. Andrew's North.	...	9	11	5	...	2	...	2	29
St. John's	1	2	...	...	...	...	...	2	5
St. Nicholas'	...	...	1	...	...	...	...	1	2
All Saints' West	...	5	3	1	...	...	...	...	9
All Saints' East	2	14	15	8	...	5	...	10	54
All Saints' North	3	10	18	10	1	1	...	11	54
St. Andrew's South.	1	10	10	1	...	3	...	1	26
Jesmond	2	37	39	24	1	4	...	10	117
Heaton	12	54	86	23	1	3	1	11	191
Byker	32	42	89	40	7	8	1	25	244
Walker	8	98	28	39	1	2	1	16	193
City	103	496	705	272	16	50	5	213	1,860

* Voluntarily notified until close of Smallpox Epidemic (Aug. 24th).

No. of
Infected
Households
&c.

RETURN SHOWING THE NUMBER OF HOUSEHOLDS, &c., IN WHICH
INFECTIOUS DISEASE WAS NOTIFIED DURING THE YEAR 1905.

DISEASES.	HOUSEHOLDS WITH						Public Institu- tions. *	TOTAL.
	Single Cases.	2 Cases each.	3 Cases each.	4 Cases each.	5 Cases each.	6 Cases.		
Smallpox	62	5	3	2	1	1	1	75†
Scarlet Fever ...	418	76	26	8	3	...	6	537
Diphtheria	221	14	2	...	...	...	4	241
Membranous Croup	16	...	...	...	...	...	...	16
Enteric (or Typhoid) Fever	37	3	...	...	...	...	3	43
Puerperal Fever ...	5	...	...	...	...	...	...	5
Erysipelas	187	6	...	...	...	...	4	197
TOTAL	946	104	31	10	4	1	18	1,114

* See page 18.

† This total does not include the case of a young man employed in the City, but residing at Tynemouth, or that of a man without any fixed abode, who presented themselves at the surgeries of medical men.

Scarlet Fever
in relation to
School
Attendance.

Scarlet Fever in relation to School Attendance.—Of the households infected with Scarlet Fever, 426 contained scholars of one or other of 70 different schools in the City. Scholars of 12 of the largest elementary schools resided in upwards of 10 of such households during the year, the largest number of such households from which children attended any one school being 38.

In one school there was infection in the households of its scholars during the whole of the year, in one during eleven months, and in two during nine months.

Rate of Scarlet Fever in City Council Schools.—Through the courtesy of the Secretary to the Education Committee, Mr. A. Goddard, who has furnished the average daily attendance at each of the Council Schools of the City, it has been possible to prepare the subjoined statement, shewing the percentage of households of scholars in which Scarlet Fever was notified to the average number of scholars in each school:—

Rate of
Scarlet
Fever in
Council
Schools.

School.	Per cent. of House- holds infected with Scarlet Fever.
Arthur's Hill...	1.3
Bath Lane ...	1.1
Bentinck ...	1.1
Blenheim Street	—
Bolam Street	1.6
Chillingham Road	1.1
Canning Street	1.4
Diana Street ...	4.4
Delaval ...	1.9
Elswick Road	1.4
Heaton Park Road	1.4
Leighton Memorial	0.7
Mitford Street	0.7
North Heaton	1.2
North View ...	0.7
Ouseburn ...	—
Raby Street ...	1.2
Royal Jubilee	0.5
Scotswood ...	5.9
Shieldfield ...	0.1
South Benwell	0.3
Spital Tongues	0.4
Saint Peter's...	0.8
Sandyford Road	1.0
Todd's Nook ...	1.3
Victoria Jubilee	0.5
Walker East ...	0.6
Walker West	1.2
Westmorland Road	0.8
Westgate Hill	2.6
West Jesmond	0.6

The Medical Officer of Health continues to inform principals of schools of the presence of infectious diseases in the homes of their pupils, as also of the cessation of infection.

Diphtheria in relation to Milk-supply.—The households affected were supplied by a large number of dealers. There is no reason to suppose that any outbreak was attributable to milk. 16 dairies supplied milk to more than one infected household, viz:—

Diphtheria
and Milk
Supply.

1 Dairy ...	*41 households
1 Dairy ...	*16 "
1 Dairy ...	*10 "
1 Dairy ...	5 "
1 Dairy ...	4 "
4 Dairies ...	3 " each.
7 Dairies ...	2 " "

* Large Dairies. The cases were spread over many months of the year.

Enteric
Fever and
Milk Supply.

Enteric Fever in relation to Milk-supply.—The milk supplies of the households infected with Enteric Fever were derived as follows :—

1 Dairy supplied	...	...	8 households.
1 " "	...	...	4 "
1 " "	...	...	2 "

Each of the remaining households were supplied by a separate dairy.

Puerperal
Fever.

Puerperal Fever.—Enquiries were made in 5 households containing 5 cases. One of the cases was attended by a mid-wife, who was suspended from practice for a month, for which compensation was granted her.

Infectious
Disease
Inquiry.

Infectious Disease Inquiry and Disinfection.—1,860 cases of notifiable infectious disease have been inquired into by the Special Inspectors, and the houses or rooms connected therewith disinfected. This does not include some 420 cases of Tuberculosis, Measles, &c., in which fumigation of the infected premises was carried out. The bedding and other infected articles were removed to the Disinfecting Station, and, after purification, returned to the owners.

INFECTIOUS CASES NOTIFIED IN PUBLIC INSTITUTIONS, &c.

Infectious
Disease in
Public
Institutions.
&c.

INSTITUTIONS, &c.	Small-pox.	Scarlet Fever.	Enteric Fever.	Diphtheria.	Erysipelas.	TOTAL.
Royal Infirmary ...	...	5	4	5	3	17
Deaf and Dumb Institution ...	...	1	...	1	...	2
H.M. Prison ...	...	...	...	...	1	1
Fleming Memorial Hospital, North Road ...	...	1	2	10	...	13
Children's Hospital, City Road ...	...	1	...	...	...	1
Workhouse ...	1	1	1	...	9	12
City Hospital for Infectious Diseases...	...	1	...	1	...	2
Walker Police Station...	...	...	...	...	1	1
Total ...	1	10	7	17	14	49

CITY HOSPITAL FOR INFECTIOUS DISEASES.*

502 patients have been treated at the City Hospital for Infectious Diseases at Walker Gate during the year.

City Hos-
pital for
Infectious
Diseases.

The cases were as follows:—

Admitted as		After observation proved to be											
	No. of Cases.	Scarlet Fever.	? Scarlet Fever.	German Measles.	Diphtheria.	Tonsillitis.	Enteric Fever.	Whooping Cough.	Chicken Pox.	Acute Miliary Tuberculosis.	Cerebral Abscess.	Laryngitis.	Pneumonia.
Scarlet Fever	...	350	1	...	...	...	...	...	...	1	...	...	...
Diphtheria ...	...	2	...	...	106	8	...	1	...	...	...	1	...
Enteric Fever	...	...	...	...	...	...	26	...	...	...	1	...	1
Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken Pox	...	...	...	...	...	...	...	...	2	...	...	...	...
German Measles	...	...	...	1	...	...	...	...	...	...	...	...	...
TOTALS ...	...	352	1	1	106	8	26	1	2	1	1	1	2

* For other details, see Appendix A, Table V.

SMALLPOX HOSPITAL, 1905.

Smallpox
Hospital.

103 cases were admitted during the year. For other details see pages 15, 39, and Appendix F.

NOTIFIED CASES OF INFECTIOUS DISEASE REMOVED TO THE CITY HOSPITAL FOR INFECTIOUS DISEASES, WALKER GATE, DURING 1905.

	No. of cases Removed.	Rate per cent. of cases re- moved to cases notified in the same form of practice.
In private practice ...	407	45.5
In Dispensary practice ...	28	60.4
In public practice (including Dispensary) ...	64	62.2

Expense of
Mainten-
ance of
Patients.

Expenses of Maintenance.—Of the patients admitted, the expense of maintenance is charged as under:—

	Cases.
To the Newcastle Sanitary Authority ...	501
To private guarantor ...	1
Total ...	502

SUMMARY OF REPORTS MADE DURING 1905.

Summary of
Reports, &c.
made during
the year.

The following, among other matters, have been brought before the Sanitary Committee during the year:—

ZYMOTIC DISEASES.

	DATE.
Smallpox—Revaccinations—Fees for ...	Jan.
„ Patient travelling from Tynemouth to Newcastle by train	Feb.
„ Refusal of contact to allow his family to be re- vaccinated, and claim for compensation	Feb. Mar.
„ Contacts in connection with a large school ...	Feb.
„ In connection with a confectioner's shop. Com- pensation	Mar.
„ Notification of Chickenpox ...	April, Oct.
„ Case at Royal Infirmary ...	May
„ At a lodging-house. Claim for compensation ...	„
„ Case at the Newcastle Dispensary ...	July
„ Importation of the disease from Felling ...	„
„ Non-reporting of contacts ...	Aug.
„ Delay in notification ...	Sept.
„ Visits of clergy to the Smallpox Hospital ...	Oct.
„ Vaccination—Resolutions from Salford Corporation	Oct., Nov.
„ Report on Epidemic (from 18th Mar., 1903, to 14th Sept., 1905)	Nov.
Infectious disease in Benwell and Fenham ...	Jan., Feb.
Puerperal fever and midwifery practice ...	Feb.
Disinfection and defects in party walls of dwellings ...	„
Diphtheria at Children's Hospital ...	Aug.
Enteric Fever from a ship in the River Tyne Port ...	Sept.

CITY HOSPITAL FOR INFECTIOUS DISEASES.

Motor ambulance	...	...	...	...	...	...	Jan., Feb., Mar., Aug.
New horse ambulance	...	...	...	...	...	...	Oct., Nov. March
Furnishings for nurses' dormitory	...	...	...	...	...	...	
Chickenpox in scarlet fever wards—Admission of fresh cases of scarlet fever refused							April
Tenders for furnishings, patients' clothing, provisions, &c.	...	...	...	...	...	...	April, May, Nov.
Overcrowding of diphtheria wards	...	...	...	...	...	...	Oct.

Paradise Hospital—Closure of	...	...	...	...	...	...	Jan., Feb.
Isolation Hospital on Town Moor—Appointment of caretakers							Dec.

LOCALITIES.

Newcastle Improvement Act, 1882, Sec. 32—

7, Hannington Place, 7, 8, 9, 10, Hannington Street, 3, 5, 6, Porter's Hill	...	...	...	...	...	...	Jan.
1, Buckingham Street and 5, Seaham Street	...	...	...	...	...	...	"
Paradise Row, West Pit Cottages, and Paradise West Pit	...	...	...	...	...	...	"
46 St. Ann Street	...	...	...	...	...	...	"
Two Mile Houses, Walker Gate	...	...	...	...	...	...	Feb.
11-13, Silver Street	...	...	...	...	...	...	Feb., Mar., Apr., Aug.
Crozier's Buildings, St. Ann Street	...	...	...	...	...	...	Feb., Mar., May, Aug.
17, Cowgate	...	...	...	...	...	...	Feb., Mar., May
1, Blyth Nook	...	...	...	...	...	...	" "
9, Erick Street	...	...	...	...	...	...	Feb., Mar., June
8, Eldon Lane	...	...	...	...	...	...	Feb., Mar., Aug.
26-30, Back Edward Street	...	...	...	...	...	...	Feb., April
28, " "	...	...	...	...	...	...	Feb., Apr., May, Aug.
7, Quality Row	...	...	...	...	...	...	Feb., Apr., Aug.
19-21, River Street, St. Peters	...	...	...	...	...	...	Feb.
Colliery Cottages, Walker Road	...	...	...	...	...	...	Feb., April
1, 2 and 4, St. Lawrence Road	...	...	...	...	...	...	Feb., Apr., July, Aug.
1, 2, 3, 4, 6 and 7, St. Lawrence Square	...	...	...	...	...	...	" "
8, Leighton Street	...	...	...	...	...	...	Feb., Apr., May, Sept.
4, Robson's Entry, City Road	...	...	...	...	...	...	Mar., June
20, St. Lawrence Road	...	...	...	...	...	...	March
100, Byker Bank	...	...	...	...	...	...	"
24, City Road	...	...	...	...	...	...	"
St. Peters—Tenement property	...	...	...	...	...	...	"
5, 6, 8, Heath's Court, Pilgrim Street	...	...	...	...	...	...	April
4, 5, 6, Pity Me	...	...	...	...	...	...	May, Sept.

Factory and Workshop Act, 1901—

Clothing Factory, West Street—Fire Escapes	...	...	...	...	...	...	Feb.
Printing Works, Pudding Chare	...	...	...	...	...	...	March
6, Charlotte Square	...	...	...	...	...	...	"
43, Side	...	...	...	...	...	...	"
25, Bath Lane	...	...	...	...	...	...	"
St. Andrew's Buildings, Gallowgate	...	...	...	...	...	...	"
30, Pudding Chare	...	...	...	...	...	...	"
Behind 16 and 18, High Bridge	...	...	...	...	...	...	"
32, High Bridge	...	...	...	...	...	...	Mar., Sept.

Factory and Workshop Act, 1901 (*continued*)—

3 and 5, Elswick Court—Fire Escapes	...	...	March
Newgate Street (manufacturing chemist)—Fire Escapes	...	...	"
39, Low Friar Street	...	...	Sept.
Underground Bakehouses—			
120, Northumberland Street...	...	...	Jan., Mar., May, Sept.
22, Brinkburn Street	...	...	Jan., Mar., Aug.
125, Elswick Road	...	...	Jan., Mar., May
65, " "	...	...	Jan., Aug.
137, " "	...	...	" "
393, Westgate Road	...	...	Jan., Mar.
21, Mosley Street	...	...	Jan., May
84-86, Shield Street...	...	...	Jan., May, Dec.
73, Westgate Road	...	...	Jan., May
247, Scotswood Road	...	...	Jan., Aug.
211, Raby Street	...	...	Jan., Sept.
83, Wolseley Road	...	...	Jan., Oct.
52, Clayton Street	...	...	" "
37A, Churchill Street	...	...	Jan., Dec.
37, Cut Bank	...	...	" "

Heaton Grove—Shrubbery	...	...	May
Walker Gate—Drains into Burns (Rivers Pollution)	...	...	Sept.
Cattle Market Slaughter-houses—Re-building of	...	...	Oct.
Lying-In Hospital, New Bridge Street—Nuisance from public urinal	...	...	"

GENERAL.

Bacterial Examination of Water	...	...	Monthly
Annual Estimates of Expenditure	...	...	Jan.
Royal Sanitary Institute—Sessional Meeting at Newcastle	...	...	"
" " " Journals	...	...	Feb.
" " " New Building	...	...	May
" " " Congress at Bristol, 1906	...	...	Dec.
Sanitation in Hairdressers' and Barbers' Shops	...	...	Jan.
Sanatoria for tuberculous patients	...	...	"
Revision of Tenement Bye-laws	...	...	Feb.
Venereal Disease and Physical Degeneration	...	...	"
Infant Mortality	...	...	April, Dec.
Sale of Whisky Bill—Circular from Health Committee of Islington	...	...	April
Ice Creameries	...	...	May
City Asylum Drains	...	...	June
Milk Analysis—Circular and letter of the Board of Agriculture	...	...	June, Aug., Oct.
Slaughter-house Licences—Added areas	...	...	June, Sept.
Superannuation Scheme—Allowances for indirect payments	...	...	June, Dec.
Standard for Cheese—Circular from Bournemouth Borough Council	...	...	July
Young children and school attendance	...	...	Sept., Oct.
Work of the Health Department since the extension of the City	...	...	Sept.
Bacterial Examinations of Milk for Tuberculosis	...	...	"
Smoke Abatement Conference	...	...	Oct.
Rules of Health Department	...	...	Nov.

WORK OF THE INSPECTORS OF THE HEALTH DEPARTMENT.

The Report of Mr. W. H. Wells, Inspector of Nuisances, New House-Drainage, Common Lodging-houses, Workshops, and Food Adulteration, is given below :—

TO THE MEDICAL OFFICER OF HEALTH.

SIR,

I beg to present you my report of the work done in my section of the Health Department during the year ended December 31st, 1905, which includes Tables VIII. to XIII (Appendix A).

General
Work of the
Health
Department

Nuisance Abatement.—The details of this work are given in Tables VIII. and IX. 265 water-closets have been substituted for midden-privies. 655 ashpits and pail-closets have been removed in consequence of the Authority's gift of free ashtubs.

Nuisance
Abatement.

Magisterial Proceedings.—See Tables X. and XI.

Magisterial
Proceedings

Tenement Bye-Laws.—As reported last year, these Bye-laws are fairly well complied with. The Bye-law as to lime-washing continues, twice each year, to absorb a large amount of work by the officers of the Health Department. In the year under report, 7,813 visits were made in this respect alone.

Tenement
Bye-Laws.

Drains of New Buildings.—This work is shewn in the following Table :—

Drains of
New
Buildings.

No. of Drains Tested with Water.	No. of Drains Tested with Smoke.	Supplementary Tests.	Supervisions of works in Progress.	Inspections to learn if works were in progress.
835	72	1,221	2,761	651

The three Inspectors who do this work also collect the samples under the Food and Drugs and Margarine Acts.

Smoke
Inspections

Smoke Inspections.—The following Table shews the details of this work:—

No. of Chimneys watched.	No. of observations of Chimneys made.	No. of chimneys from which black smoke issued in such quantity as to be a nuisance for periods of over 5 minutes in the aggregate in one hour.	No. of times when smoke issued so as to be a nuisance.	No. of notices served for the abatement of smoke nuisances.	
				Informal.	Statutory.
84	186	56	101	25	12

Offensive
Trades.

Offensive Trades.—The 44 premises in the City where these trades are carried on have been systematically visited. The trades referred to are: Tripe Boilers (8), Gut Scraper (1), Soap Boilers (2), Tanners (2), Leather Dresser (1), Fish Curers (7), Manure Manufacturers (2), Bone Store (1), Tallow Melters (2), Hide and Skin Dealers (3). Fifteen Marine Store Dealers are included in the total given above.

Common
Lodging-
houses.

Common Lodging-houses.—These houses have on the whole been well conducted. Nine of the older ones have been closed. Twelve additional houses, and 4 rooms in other houses already registered, have been put on the Register. The number of common lodging-houses in the City at the end of the year was 71. The total number of lodgers for which the houses were registered was, at the close of 1904, 2,321. At the end of the year under report the number was 2,389. The average number of lodgers per night was 1,816. The highest and lowest numbers on any one night were respectively 1,855 and 1,735. For details see Tables XII. and XIII.

Bakehouses

Bakehouses.—The retail bakehouses (85) have been systematically inspected. They are all kept in good order. Of the 26 underground bakehouses reported last year, 14 have been certified as being suitable, four are in process of alteration, and eight have been closed.

Adulteration Acts.—The number of samples of food and drugs dealt with during the year is 597. See Table XI. Adulteration Acts.

The number of milk samples purchased is 302. Of these, 237 were submitted to the Public Analyst, who certified that 45 of them were adulterated and 192 genuine. The remaining milk samples, on examination at the office of the Health Department, were found to be genuine.

The practice of examining milk samples in the offices of the Health Department has been discontinued since the month of March. All samples are now sent to the Public Analyst direct.

Of the total number of samples taken (597), 238 were collected "informally," through the agency of hired persons, viz :—

New Milk... .. 2	Butter 127	Margarine 22
Corn Flour 4	Ground Rice 4	Cream of Tartar ... 4
Ground Ginger ... 3	Gregory's Powder ... 4	White Pepper... .. 7
Lard 28	Black Pepper 1	Cheese 8
Bread 3	Condensed Milk 5	Compound Liquorice
Flowers of Sulphur 4	Syrup of Rhubarb ... 4	Powder... .. 4
Tincture of Rhubarb 4		

The percentage of samples adulterated to the total number taken is 10·9 and the percentage of milk samples adulterated to the number of milk samples taken is 14·9. The total number of samples taken is at the rate of 2·25 per 1,000 of the population (estimated) of the City for the year 1905.

Margarine Act.—27 samples of Margarine (included in the above total) have been purchased and analysed. Five of them contained Boric Acid, 4 to the extent of 0·2%, and 1 to the extent of 0·31%. Three contained respectively 19, 15, and 14 per cent. of butter fat. See Table XI., p. 51. Margarine Act.

The Margarine Warehouses have been systematically visited. There have been 386 visits made.

Houses
Demolished

Houses Demolished.—39 tenemented houses (69 holdings), 33 self-contained houses, and four common lodging houses, have been taken down to make room for business premises, for street improvements, &c.

Factory and
Workshop
Act.

Factory and Workshop Act.—682 workshops, “not previously reported,” and a large number of those already on the books of the Department, have been visited. 3,531 visits were made to the latter.

The following sanitary defects were found and dealt with :-

Sanitary Defects Found.	In Workshops not previously reported.	In Workshops on the books at end of the year 1904.
Overcrowded rooms	19	8
Dirty rooms	196	245
Dirty passages and staircases ...	—	17
Gas Stoves without means provided to carry off the fumes	23	10
No water-closet accommodation ...	48	3
Insufficient w.c. accommodation ...	56	3
Defective water-closets and urinals...	23	7
Dirty water-closets and urinals ...	85	97
Choked water-closets	4	5
Choked drains	6	8
Defective drains	—	1
Insufficient means of escape from fire	6	—
Yard pavements defective	1	2
Foul accumulations	2	4
Foul privy	1	—
Dark and badly ventilated rooms ...	2	2
Dirty yards	8	1
Defective pail-closets	1	1
Dirty pail-closets	2	—
W.C.'s not properly screened ...	2	—
No abstract of F. & W. Act posted in workrooms	23	12
Unclassified minor defects	6	6
Totals	514	432

There are now 813 Workshops on the Register, besides a large number of factories, workplaces, domestic workshops, and out-workers' premises.

During the year 30 complaints of insanitary conditions, &c., in factories and workshops were received from H.M. Inspectors of Factories. Particulars of these are given below :—

FACTORIES.		
Packing drysaltery Goods	Insufficient means of escape in case of fire.	The number of workers has been reduced to less than 40, so as to bring the premises within the Act.
Printing	Do.	Could not be dealt with under existing law, on account of number of workers being below 40.
Builder's Yard	No sanitary convenience.	A w.c. has been provided.
Printing	Smells from closet in cellar.	Two w.c.'s were found to be in a dirty condition. These were cleansed.
Engineering	Conveniences inside works defective and offensive.	The w.c.'s complained of were removed outside the factory, and a urinal erected on the site.
Builder's Yard and Office	Office immediately over stable--effluvia rather bad at visit.	Through-ventilation was provided to stable.
Engineering	W.C. opening directly into workroom, in undesirable position, and no ventilation--strong effluvia.	The w.c. was removed from workroom, and a new w.c. erected in the yard.
Ship-building, &c. ...	Sanitary accommodation insufficient and in filthy condition.	The accommodation was found to be sufficient according to law. The conveniences were cleansed & limewashed, and arrangements made for the weekly cleansing of same.

WORKSHOPS.		
Brushmaking	No means for carrying off fumes or smoke from pitch pans, and no adequate means of escape in case of fire.	Means provided to carry off fumes, &c. The question of fire escapes could not be dealt with as the number of workers was below 40.
Packing and weighing Tea	Only one small square opening in workshop to admit light and air.	Means of light and ventilation increased by the removal of a partition between workroom and office.

WORKSHOPS.—(Continued.)			
Tailoring	Walls, ceilings, and staircases require limewashing.	Found staircase walls and ceiling fairly clean. The room walls and ceilings were rather dirty, and were lime-washed.	
Rag sorting	Do.	Premises limewashed.	
Tea blending	Walls and ceiling require limewashing.	Do.	
Picture-framing	Do.	Do.	
Bottling beer	Do.	Do.	
Millinery	No sanitary accommodation.	W.C. provided.	
Millinery	Do.	Provision of w.c. not enforced, as workers consisted only of mistress and one woman, who was given the use of a w.c. at the house of proprietress, close by, and there being no suitable position in which to put a w.c.	
Millinery	Inadequate ventilation. Defective sanitary accommodation, <i>i.e.</i> , dark, not clean, and unventilated.	The matter of the ventilation of workroom is being dealt with. The w.c. has been removed to a lighter and more suitable position.	
Tailoring	Ceiling of workroom requires limewashing.	Ceiling limewashed.	
Saddlery	No sanitary accommodation. Workshop requires cleaning and limewashing.	Use of adjoining w.c. obtained. Workshop cleansed and lime-washed.	
Tailoring	Men's w.c. and workshop dirty.	W.C. cleansed, and workshop limewashed.	
Tailoring	Workroom dirty.	Workroom cleansed.	
French polishing	Offensive matter lodging in front of w.c.	Yard pavement re-constructed so as to carry off surface water to drain. Yard cleansed.	
French polishing	W.C. in filthy condition.	W.C. cleansed.	
Ticket writing	Do.	Do.	
Dressmaking	Walls and ceilings of workrooms require limewashing.	Walls repapered and ceilings limewashed.	
Tailoring	W.C. pan foul, and w.c. dirty.	W.C. thoroughly cleansed.	
Tailoring	Insufficient space for females.	No overcrowding found.	
Sign-writing, &c.	W.C. in offensive condition. Pan dirty.	W.C. cleansed.	
Sauce making	Men's sanitary convenience not fit to be used.	Found the w.c. had been put in order.	

Health Visitors.—The result of the work of these officers is good. The favourable remarks made in the last Annual Report still apply. Health Visitors.

For details of the work of the Health Visitors see Table XIII.

I am,

Your obedient Servant,

W. H. WELLS,

Inspector, &c., &c.

*Health Department,
Town Hall,
Newcastle-upon-Tyne,
19th April, 1906.*

The following is the Report of Mr. Wm. Hedley, Inspector of Cattle, Cowsheds, Slaughter Houses, and Food :—

TO THE MEDICAL OFFICER OF HEALTH.

SIR,

I beg to present to you my report for the year ended December 31st, 1905.

With the exception of one case of Epizootic Lymphangitis which occurred in His Majesty's Military Barracks, the animals in the City have continued free from infectious disease as defined under the Diseases of Animals Acts.

Two cowkeepers have declined business during the year, leaving only 43 persons within the municipal boundary who keep cows for the purpose of supplying milk to the public.

In the Benwell district, in two cases cowsheds have been extended to old buildings after alterations made to comply with the regulations. In several cases floors have been cemented and other necessary repairs done at the verbal request of the inspector.

No case of infectious disease has been reported in the families of cowkeepers throughout the year.

Seven cattle belonging to dairymen have been sent to knackery yards for various reasons, and twenty-two others from the Cattle Market or Railway Station. The latter were all emaciated animals affected with tubercular or other wasting disease.

Slaughter-houses.—Little change has been made in these places. 139 were licensed at the close of 1904, and the same number were relicensed in October last. In the Walker district five of the worst places are licensed for six months only, as a protest against their insanitary condition.

The Abattoir Committee feel it would be a hardship on the occupiers to close them before better accommodation is provided for the trade. Several meetings have been held with this view, but at the close of the year no general scheme had been agreed to.

Generally, the Bye-laws have been complied with as far as practicable. Any failure to comply has been attended to on verbal complaint being made.

The return of suspected provisions dealt with is given in Table VII. Of the 77 carcasses of beef returned as unfit for food, 55 were affected with tuberculosis. The large increase of quarters of beef, carcasses of mutton, and pieces of beef and mutton, ox kidneys, &c. dealt with, was caused by the running aground on the Yorkshire coast of a steamer that was bringing frozen meat to Newcastle. On arrival here, it was found that a large part of the cargo was immersed in water and was quite unfit for sale. The loss was covered by insurance.

Fish Market.—Small supplies of fish have been received at the Close Fish Market. 744 lbs. of Norwegian trout found to be unclean and unsound were destroyed with the consent of the consignee. Small quantities of various other kinds of fish in an unsound condition were also destroyed with the consent of the owners.

Legal proceedings.—Three persons have been summoned for being the owners of diseased meat exposed or deposited for the purpose of sale, and intended for the food of man. One was fined £20 and costs, one £5 and costs, and one case was dismissed. In this case, the meat was sent into Newcastle for sale, and the owner was summoned under Sec. 65 of the Newcastle-upon-Tyne Improvement Act, 1892, which requires proof of the owner's knowledge that the meat was diseased. On this point the Magistrates disagreed. One person was fined £5 and costs for exposing unsound herrings for sale. One was summoned under the Diseases of Animals Acts for illegally moving swine without a licence. He was fined £10 and costs on two informations. One was summoned under the Slaughter-house Bye-laws for not cleansing his slaughter-house within the proper time after ceasing to slaughter. He was fined 20/- and the costs of the case.

I am, Sir,

Your obedient Servant,

WM. HEDLEY,

INSPECTOR OF CATTLE, PROVISIONS, &c.

*Health Department,
Town Hall,*

Newcastle-upon-Tyne.

29th March, 1906.

HOUSES BUILT DURING THE YEAR 1905.

House-
building.

The following return of houses built during the year under report is supplied through the courtesy of the City Engineer:—

Newcastle-upon-Tyne.					Houses Self-contained.	Houses of Two Flats each.
Benwell	...	...	...	...	24	39
Fenham	...	...	...	...	22	—
Elswick Township	...	...	...	...	63	16
Westgate Township	...	...	...	...	—	—
Byker Township	...	...	...	...	1	28
Jesmond Township	...	...	...	...	116	33
Heaton Township	...	...	...	...	46	38
St. Andrew's Parish	...	...	...	...	—	—
St. John's Parish	...	...	...	...	—	—
St. Nicholas' Parish	...	...	...	...	—	—
All Saints' Parish	...	...	...	...	—	—
Walker	...	...	...	...	1	17
					273	171

(for 342 families.)

New
Accommo-
dation.

New accommodation has thus been provided for 615 families or at the rate of 5 persons to a family, 3,075 persons, as compared with accommodation estimated for 3,165 persons provided during 1904.

SANITARY ALTERATIONS.

79 plans for minor sanitary works have been examined and approved or otherwise by the Medical Officer of Health, and forwarded to the City Engineer for his consideration, as compared with 95 during the previous year.

HENRY E. ARMSTRONG, D.Hy.,

Medical Officer of Health.

*Health Department,
Town Hall,
Newcastle-upon-Tyne.
3rd May, 1906.*

City and County of Newcastle-upon-Tyne, 1905.

APPENDIX A.

TABLE I.

POPULATION (ESTIMATED BY THE REGISTRAR GENERAL TO THE MIDDLE
OF THE YEAR)—264,511.

Registration Sub-districts and City.	Different Quarters of the Year.	Births Registered in 52 Weeks ended 30th December, 1905.			Deaths Registered in 52 Weeks ended 30th December, 1905.		
		Male.	Female.	Total.	Male.	Female.	Total.
Benwell	1st Quarter ...	126	118	244	32	29	61
	2nd " ...	121	113	234	34	27	61
	3rd " ...	136	108	244	53	33	86
	4th " ...	121	114	235	46	34	80
	Total ...	504	453	957	165	123	288
Elswick	1st Quarter ...	211	206	417	162	157	319
	2nd " ...	234	225	459	138	111	249
	3rd " ...	220	209	429	135	129	264
	4th " ...	209	184	393	149	128	277
	Total ...	874	824	1,698	584	525	1,109
St. Nicholas' ...	1st Quarter ...	139	148	287	135	110	245
	2nd " ...	123	132	255	128	99	227
	3rd " ...	145	124	269	146	101	247
	4th " ...	136	129	265	142	94	236
	Total ...	543	533	1,076	551	404	955
St. Andrew's ...	1st Quarter ...	100	93	193	80	78	158
	2nd " ...	95	100	195	62	58	120
	3rd " ...	112	108	220	66	66	132
	4th " ...	93	98	191	71	71	142
	Total ...	400	399	799	279	273	552
All Saints' ...	1st Quarter ...	127	122	249	56	68	124
	2nd " ...	113	130	243	54	54	108
	3rd " ...	124	126	250	57	52	109
	4th " ...	106	125	231	53	64	117
	Total ...	470	503	973	220	238	458
Byker	1st Quarter ...	339	300	639	147	116	263
	2nd " ...	312	316	628	123	115	238
	3rd " ...	283	294	577	108	121	229
	4th " ...	311	300	611	114	117	231
	Total ...	1,245	1,210	2,455	492	469	961
Walker	1st Quarter ...	58	54	112	37	40	77
	2nd " ...	78	75	153	43	20	63
	3rd " ...	62	62	124	29	33	62
	4th " ...	59	73	132	45	22	67
	Total ...	257	264	521	154	115	269
City	1st Quarter ...	1,100	1,041	2,141	649	598	1,247
	2nd " ...	1,076	1,091	2,167	582	484	1,066
	3rd " ...	1,082	1,031	2,113	594	535	1,129
	4th " ...	1,035	1,023	2,058	620	530	1,150
	Total ...	4,293	4,186	8,479	2,445	2,147	4,592

The Births represent a rate of 32·1, and the Deaths a rate of 17·4 per 1,000 estimated population.
The increase of Births over Deaths is 3,887 this year, as compared with 2,633 in 1904.

TABLE II.

RETURN OF CAUSES OF DEATH IN THE REGISTRATION SUB-DISTRICTS AND ENTIRE CITY DURING THE 52 WEEKS ENDED 30TH DECEMBER, 1905.

CAUSE OF DEATH.	REGISTRATION SUB-DISTRICTS AND CITY.							
	CITY.	Benwell.	Elswick.	St. Nicholas.*	St. Andrew's	All Saints'.	Byker.	Walker.
I.								
Smallpox	2	...	...	...	2	...	...	...
Measles	37	1	11	4	2	3	13	3
Scarlet Fever	14	3	1	2	1	...	1	6
Epidemic Influenza	16	3	4	1	2	...	5	1
Whooping Cough	88	3	15	17	9	18	25	1
Diphtheria	48	3	3	4	3	3	12	20
Membranous Croup	4	1	...	1	...	...	1	1
Croup	9	...	...	1	1	7	...	...
Enteric Fever	11	1	2	3	2	...	...	3
Diarrhœa, Dysentery	107	20	13	21	6	13	26	8
Epidemic or Zymotic Enteritis	37	4	7	5	4	4	10	3
Other Epidemic Diseases	2	1	...	1	...	...	...	...
II.								
Anthrax, Splenic Fever	1	...	...	1	...	...	...	...
Cowpox, Effects of Vaccination	1	...	...	...	...	...	1	...
III.								
Syphilis	20	1	10	2	2	3	2	...
IV.								
Phagædena	1	...	...	1	...	...	...	...
Erysipelas	7	...	2	3	...	1	...	1
Pyæmia, Septicæmia	17	...	2	9	3	1	2	...
Puerperal Fever	4	...	...	...	...	1	2	1
Infective Endocarditis	2	...	...	1	...	...	1	...
Other Septic Diseases	22	1	3	5	8	...	4	1
V.								
Rheumatic Fever, Rheumatism of Heart	13	...	1	3	2	1	4	2
Tetanus	5	...	...	5	...	...	...	...
VI.								
Tubercular Disease of Brain or Meninges, Acute Hydrocephalus	86	9	12	12	9	11	21	12
Laryngeal and Pulmonary Phthisis	397	25	127	57	55	38	79	16
Tabes Mesenterica, Tubercular Disease of Intestine	49	3	9	5	10	4	11	7
General Tuberculosis, Tubercular Disease of Undefined Position	46	2	11	6	9	5	9	4
Other forms of Tuberculosis, Scrofula	30	2	3	6	12	1	4	2
<i>Total Tuberculosis</i>	608	41	162	86	95	59	124	41
VII.								
Thrush	3	...	...	1	...	1	...	1
VIII.								
Starvation, Want of Breast Milk	19	1	7	5	4	...	1	1
Rickets	26	3	6	7	1	2	6	1
Carried forward	1,124	87	249	189	147	117	240	95

TABLE II.—CONTINUED.

RETURN OF CAUSES OF DEATH IN THE REGISTRATION SUB-DISTRICTS AND ENTIRE CITY DURING THE 52 WEEKS ENDED 30TH DECEMBER, 1905.

CAUSE OF DEATH.	REGISTRATION SUB-DISTRICTS AND CITY.							
	CITY.	Benwell,	Elswick,†	St. Nicholas,*	St. Andrew's	All Saints,†	Byker,	Walker.
Brought forward	1,124	87	249	189	147	117	240	95
VIII. Contd.								
Chronic Alcoholism	4	...	...	2	...	2	...	...
Acute Alcoholism, Delirium Tremens	10	...	5	2	2	1	...	...
X.								
Osteo-arthritis, Rheumatoid Arthritis	13	1	4	1	2	2	2	1
Cancer	231	11	51	68	35	17	43	6
Diabetes Mellitus	29	...	9	8	1	4	7	...
Purpura Hæmorrhagica	4	1	...	1	1	1	...	...
Hæmophilia	2	...	...	...	1	...	1	...
Anæmia Leucocythæmia	18	1	7	6	1	1	2	...
XI.								
Premature Birth	165	13	31	20	13	21	57	10
Debility at Birth	205	16	27	26	19	30	75	12
Injury at Birth	10	2	3	...	...	3	2	...
Atelectasis	12	...	3	1	...	2	4	2
Malformation of Heart	4	...	2	...	1	...	1	...
Spina Bifida, Hydrocephalus	7	1	...	2	2	...	2	...
Imperforate Anus	2	...	...	...	...	...	2	...
Cleft Palate, Hare-lip	3	...	...	3	...	...	...	...
Other Congenital Defects	28	1	6	2	6	3	9	1
Old Age, Senile Decay	201	4	75	25	27	10	44	16
XII.								
Inflammation of Brain or Membranes .	69	2	13	18	3	6	21	6
Convulsions	127	10	27	26	8	17	33	6
Apoplexy	158	8	58	31	18	12	26	5
Softening of Brain	6	2	2	...	...	...	2	...
Hemiplegia, Brain Paralysis	30	1	8	3	10	3	4	1
Paralysis Agitans	2	...	2	...	...	...	...	...
Insanity, General Paralysis of Insane	6	...	2	...	1	...	2	1
Epilepsy	8	...	...	2	...	1	4	1
Laryngismus Stridulus	6	1	1	...	...	1	...	3
Paraplegia, Disease of Spinal Cord .	14	...	4	2	1	...	5	2
Other and Undefined Diseases of Brain or Nervous System	24	1	4	8	3	...	8	...
XIII.								
Otitis, Otorrhœa	8	1	...	1	4	...	2	...
XIV.								
Endocarditis, Valvular Diseases of the Heart	100	8	23	18	11	8	23	9
Pericarditis	2	...	1	1	...	...	...	...
Angina Pectoris	7	...	2	2	3	...	...	...
Aneurism	10	...	4	4	...	...	2	...
Senile Gangrene	9	...	5	2	...	...	2	...
Embolism, Thrombosis	12	1	1	4	2	...	4	...
Carried forward	2,670	173	629	478	322	262	629	177

TABLE II.—CONTINUED.

RETURN OF CAUSES OF DEATH IN THE REGISTRATION SUB-DISTRICTS AND ENTIRE CITY DURING THE 52 WEEKS ENDED 30TH DECEMBER, 1905.

CAUSE OF DEATH.	REGISTRATION SUB-DISTRICTS AND CITY.							
	City.	Benwell.	Elswick.†	St. Nicholas.*	St. Andrew's.	All Saints'.	Byker.	Walker.
Brought forward	2,670	173	629	478	322	262	629	177
XIV. Contd.								
Other and Undefined Diseases of Heart and Circulatory System	274	10	128	34	30	23	48	1
XV.								
Laryngitis	9	1	2	1	2	2	1	...
Other Diseases of Larynx and Trachea	6	...	1	1	2	...	...	2
XVI.								
Bronchitis	285	28	75	62	23	31	49	17
Lobar, Croupous Pneumonia	33	1	4	3	9	5	10	1
Lobular, Broncho-Pneumonia	167	6	43	32	9	23	50	4
Pneumonia, form not stated	146	9	44	22	22	11	28	10
Emphysema, Asthma	11	2	3	1	...	...	5	...
Pleurisy	18	1	3	4	2	4	3	1
Other and Undefined Diseases of Respiratory System	15	...	3	8	2	1	1	...
XVII.								
Sore Throat, Quinsy	2	1	...	...	...	...	1	...
Diseases of Stomach	58	1	10	17	7	11	9	3
Enteritis	84	9	19	23	15	2	7	9
Cirrhosis of Liver	25	5	3	6	2	5	2	2
Obstruction of Intestine	46	1	5	26	6	2	5	1
Peritonitis	21	...	1	10	5	1	3	1
Other Diseases of Digestive System	33	3	2	16	6	...	4	2
XVIII.								
Diseases of Lymphatic System	1	...	1	...	...	...	...	...
XIX.								
Acute Nephritis	104	6	31	30	12	6	13	6
Bright's Disease, Albuminuria	31	1	11	11	2	2	4	...
Calculus	1	...	...	1	...	...	...	...
Disease of Bladder and of Prostate	14	1	1	5	3	...	4	...
Other and Undefined Diseases of Urinary System	51	2	10	20	9	3	6	1
XX.								
Male:—Diseases of Penis	2	...	...	1	...	1	...	...
Female:—Diseases of Ovaries	1	...	...	1	...	...	...	...
Diseases of Uterus and Appendages	9	1	2	2	4	...	...	...
XXI.								
Abortion, Miscarriage	2	...	...	...	...	...	1	1
Puerperal Convulsions	5	...	...	1	...	2	2	...
Placenta Prævia, Flooding	1	...	...	...	...	...	...	1
Carried forward	4,125	262	1,031	816	494	397	885	240

TABLE II.—CONTINUED.

RETURN OF CAUSES OF DEATH IN THE REGISTRATION SUB-DISTRICTS AND ENTIRE CITY DURING THE 52 WEEKS ENDED 30TH DECEMBER, 1905.

CAUSE OF DEATH.	REGISTRATION SUB-DISTRICTS AND CITY.							
	City.	Benwell.	Elswick.†	St. Nicholas.*	St. Andrew's.	All Saints'.	Byker.	Walker.
Brought forward	4,125	262	1,031	816	494	397	885	240
XXI. Contd.								
Other and Undefined Accidents of Childbirth	11	1	4	2	1	2	1	...
XXII.								
Arthritis, Ostitis, Periostitis	5	...	...	1	1	...	1	2
Other and Undefined Diseases of Organs of Locomotion	19	1	6	5	5	...	2	...
XXIII.								
Ulcer, Bedsore	1	...	...	1	...	...	...	...
Eczema	1	...	...	1	...	...	...	...
Other and Undefined Diseases of Integumentary System	2	1	...	...	...	1	...	...
XXIV.								
<i>Deaths from Accident or Negligence—</i>								
In Mines and Quarries	2	...	1	...	...	...	...	1
By Vehicles and Horses	3	...	...	2	...	...	1	...
On Railways	3	...	...	2	...	1	...	...
On Ships, Boats and Docks (other than Drowning)	2	...	...	...	...	1	...	1
Burns and Scalds	29	2	...	20	3	1	3	...
Poisons, Poisonous Vapours	7	1	...	3	2	1	...	...
Drowning	7	...	...	...	...	...	2	5
Suffocation, overlaid in bed	18	2	3	7	...	...	5	1
Suffocation, otherwise	2	...	1	...	...	1	...	...
Falls	3	...	...	3	...	...	...	...
Otherwise and not stated	79	2	6	43	6	3	11	8
XXV.								
Homicide	1	...	...	1	...	...	...	...
Suicide	32	3	7	8	5	3	5	1
Execution	1	...	...	...	...	1	...	...
XXVI.								
Sudden Death (cause not ascertained)	11	1	2	1	1	4	1	1
Other Ill-defined and not Specified Causes	228	12	48	39	34	42	44	9
TOTAL	4,592	288	1,109	955†	552	458	961	269

† Includes Union Workhouse.

* Includes Royal Infirmary.

‡ The number of Deaths is increased by 412 in the Royal Infirmary, 232 of which came to that Institution from beyond the City. In 14 other Infirmary cases the residences are not stated in the returns.

TABLE III.

ANNUAL DEATH-RATE FROM ALL CAUSES AND FROM THE SEVEN "CHIEF ZYMOTIC DISEASES" PER 1,000 LIVING IN NEWCASTLE, COMPARED WITH THE AVERAGE RATES IN THE LARGE TOWNS IN THE UNITED KINGDOM.

	All Causes.		Seven "Chief Zymotic Diseases,"*	
	1905.		1905.	
	Average in 76 Towns.	Rate in New-castle.	Average in 76 Towns.	Rate in New-castle.
1st Quarter ...	17.2	18.9	1.39	0.89
2nd " ...	14.7	16.1	1.41	0.87
3rd " ...	15.2	17.1	3.45	2.45
4th " ...	15.8	17.4	1.27	1.07
Annual Rate ...	15.7	17.4	1.88	1.32

* Smallpox, Scarlet Fever, Diphtheria, Typhus, Enteric, and Continued "Fevers," Measles, Whooping Cough, and Diarrhoea, which now includes Dysentery, Epidemic and Zymotic Enteritis, and Intestinal Catarrh.

TABLE IV.—AGES AT DEATH.

Periods.	REGISTRATION SUB-DISTRICTS.							
	Total in City.	Benwell.	Elswick.	St. Nicholas'.	St. Andrew's.	All Saints'.	Byker.	Walker.
Under 1 Year... ..	1,166	106	214	177	112	158	321	78
1 Year & under 5 Years	596	44	117	113	74	72	119	57
5 Years " 20 "	338	15	51	109	45	15	68	35
20 " " 40 "	568	29	123	169	59	50	106	32
40 " " 60 "	840	46	215	221	94	90	146	28
60 " " 80 "	911	43	313	148	136	65	176	30
80 " and upwards	171	5	76	17	32	7	25	9
Age not known... ..	2	...	...	1	...	1	...	...
Total (all ages) dying during 52 weeks ended 30th December, 1905)	4,592	288	1,109	955	552	458	961	269

TABLE V.

ADMISSIONS TO AND DEATHS AT THE CITY HOSPITAL FOR INFECTIOUS DISEASES
(OTHER THAN SMALLPOX) DURING THE YEAR 1905.

DISEASES.	ADMISSIONS.													DEATHS.												
	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Scarlet Fever	40	36	40	28	26	17	17	36	37	25	37	13	352*	2	...	2	...	...	...	...	...	...	...	1	...	5
? Scarlet Fever	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria	6	9	5	3	9	6	12	11	7	11	12	15	106†	3	1	1	...	3	1	...	1	...	1	4	4	19
Tonsillitis	1	...	...	...	1	2	1	...	...	1	1	1	8	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	...	1	4	...	3	...	2	3	6	2	3	2	26	...	...	...	...	...	...	...	1	1	...	...	1	3
Chickenpox	...	...	...	2	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
German Measles	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Acute Miliary Tuberculosis	...	1	...	...	...	...	...	...	...	...	...	...	4	...	1	...	...	...	...	...	...	...	...	...	...	1
Cerebral Abscess	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Laryngitis	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia	...	...	...	...	1	...	...	1	...	...	...	...	2	...	...	...	...	...	...	...	1	...	...	...	...	1
TOTAL	48	47	49	33	41	26	32	52	51	39	53	31	502	5	2	3	...	3	1	...	3	1	1	5	5	29

* Includes a daughter of the Ambulance Driver at the Hospital.

† Includes a Laundry Maid at the Hospital.

TABLE VA.

SMALLPOX AND "CONTACT" ISOLATION HOSPITALS, 1905.

	SMALLPOX HOSPITAL.		"CONTACT" ISOLATION HOSPITAL.	
	PATIENTS ADMITTED.	Died.	"CONTACTS" ADMITTED.	Number developing Smallpox after admission and transferred to Smallpox Hospital.
January	30	2	112	1
February	28	...	127	5
March	6	...	32	...
April	1	...	9	...
May	20	...	83	5
June	2	...	10	...
July	14	...	60	2
August	2	...	16	...
September	...	...	...	...
October	...	...	...	...
November	...	...	...	...
December	...	...	...	...
Total	103	2	449*	13

* In addition to these, 10 persons suspected to be suffering from Smallpox were isolated, 3 of whom proved to have the disease.

TABLE VI.

INFECTED ARTICLES DESTROYED AND REPLACED BY THE HEALTH
DEPARTMENT.

						1905.	1904.
Half Straw Mattresses	...	...	...	...	...	44	114
Flock Bed	...	...	...	...	...	1	—

TABLE VIa.

INFECTED ARTICLES PURIFIED IN THE DISINFECTING APPARATUS AT THE
CITY HOSPITAL FOR INFECTIOUS DISEASES, WALKER GATE.

ARTICLES FROM CITY.		ARTICLES—HOSPITAL PROPERTY.	
1905.	1904.	1905.	1904.
12,894	11,961	1,458	1,523

In addition to the above, 6,215 articles from the City were purified in the Disinfecting Apparatus at the Smallpox Hospital, Town Moor, during the year.

TABLE VII.

RETURN OF SUSPECTED AND UNWHOLESOME PROVISIONS INSPECTED
DURING THE YEAR 1905.

PROVISIONS INSPECTED.	Amount of Suspected Provisions Inspected.	CONDITION.		BAD—HOW DISPOSED OF.	
		Fit for Food.	Unfit for Food.	Destroyed by Order of Justices.	Destroyed with Owner's Consent.
Carcases of Beef ...	148	71	77	2	75
Quarters of Beef ...	1,811	440	1,371	—	1,371
Carcases of Veal ...	63	27	36	—	36
" Mutton ...	8,130	789	7,341	—	7,341
" Pork ...	101	37	64	—	64
Pieces of Beef (lbs.) ...	5,079	3,472	1,607	—	1,607
" Veal (lbs.) ...	90	—	90	—	90
" Mutton (lbs.) ...	42,456	22,238	20,218	—	20,218
" Pork (lbs.) ...	101	—	101	—	101
Ox Heads ...	5	—	5	—	5
" Cheeks (lbs.) ...	10,000	200	9,800	—	9,800
" Skirts (lbs.) ...	10,000	1,600	8,400	—	8,400
" Tongues (lbs.) ...	3,000	1,860	1,140	—	1,140
" Kidneys (lbs.) ...	3,731	500	3,231	—	3,231
" Hearts (lbs.) ...	2,500	50	2,450	—	2,450
" Livers (lbs.) ...	2,249	—	2,249	—	2,249
" Tails (lbs.) ...	3,688	35	3,653	—	3,653
" Tripe (lbs.) ...	4,340	—	4,340	—	4,340
Sheep & Pig Hearts (lbs.)	5,085	700	4,385	—	4,385
" " Kidneys "	592	—	592	—	592
" " Plucks ...	390	—	390	—	390
Sheep Tongues (lbs.) ...	2,500	50	2,450	—	2,450
Turkeys ...	18	—	18	—	18
Geese ...	20	—	20	—	20
Ducks ...	6	—	6	—	6
Chickens ...	3	—	3	—	3
Hares ...	16	—	16	—	16
Rabbits (couple) ...	80	—	80	—	80
Black Game (brace) ...	33½	—	33½	—	33½
Rooks (dozen) ...	20	—	20	—	20
Eggs ...	1,440	—	1,440	—	1,440
Apples (stones) ...	10	—	10	—	10
Black Currants (baskets)	224	—	224	—	224
Cauliflowers (cwts.) ...	15	—	15	—	15
Yeast (stones) ...	12	—	12	—	12

WM. HEDLEY, INSPECTOR.

TABLE VIII.

SUMMARY OF NUISANCES FOR THE ABATEMENT OF WHICH NOTICES
HAVE BEEN SERVED DURING 1905.

Foul privies and ashpits (to replace with water-closets)...	(Privies Ashpits	261 181
Foul ashpits not connected with privies (to remove and provide tubs)		15
Insufficient water-closet or privy accommodation (additional water-closets ordered)		26
Defective or insufficient tubs for dry house refuse (to provide new and additional tubs)		521
Defective water-closets (to repair)		455
Water-closets without water supply (to provide water)		99
*Choked water-closets (mostly served on tenants)...		323
*Dirty water-closets (all served on tenants)		105
† Defective pail-closets		1,105
*Dirty pail-closets (all served on tenants)...		52
Want of drainage (to provide)		3
Defective drains (to repair, or construct new drains)		463
Choked drains, etc. (to cleanse)		904
Defective or choked sinks, soilpipes, etc. (to repair or cleanse)		223
Defective pavement in yards and passages (to repair)		151
Dirty or dilapidated rooms (to be cleaned or repaired)		463
Overcrowding (to abate)		56
Cellar dwellings not in conformity with law (to be closed or not used separately as dwellings)		5
Dirty yards and passages (to cleanse or limewash)		252
Animals, pigeons, and fowls improperly kept (to remove)		12
Offensive accumulations (to remove)		140
Accumulations of manure (to periodically remove)...		17
Broken roofs and water spouting (to repair)		413
Want of water (to provide supply)		198
Want of or defective sanitary conveniences in public houses (to provide or repair)		3
Smoke nuisances (to abate)		37
Want of or defective manure pits (to provide or repair)		2
Want of proper ventilation to tenement rooms owing to window cords being broken (to provide proper sash cords)		142
Dirty bakehouses (to cleanse)		3
Underground bakehouses not in conformity with the law		30
Unclassified minor nuisances (to abate)		64
Total		6,724

* To cleanse.

† To provide new pans, or to repair the roofs, seats, floors, etc.

(Signed) W. H. WELLS,

INSPECTOR OF NUISANCES.

TABLE IX.

DETAILS RELATING TO CERTAIN WORKS CARRIED OUT IN THE ABATEMENT OF
NUISANCES AND TO INSPECTIONS MADE DURING 1905.

Length in yards of old drains removed	...	...	...	...	4,370
" " new " constructed	...	...	...	...	7,160
New trapped gullies provided to drains	...	...	...	...	803
Combined privies and ashpits removed	{ privies ...				*265
	{ ashpits ...				*177
Water-closets provided	...	...	...	...	†465
Pail-closets provided	...	...	...	...	5
Pail-closets removed	...	...	...	...	133
Defective water-closets removed, and closets of a better design substituted	...	...	...	...	30
Dry ash-tubs substituted for dry ash-pits where water-closets existed, and provided in cases where pail-closets have been replaced by water-closets	...	...	...	...	‡693
No. of drains tested	...	...	...	...	981
No. of tests of above drains made by smoke and water	...	...	...	...	1,672
No. of complaints made at office (verbally or by letter)	...	...	...	...	738
No. of tenement inspections made	...	...	...	...	32,342
No. of contraventions of Tenement Bye-laws for which notices have been served to obtain remedy	...	...	...	...	§2,661
Inspections of houses made from complaints received outdoors or nuisances discovered in the districts, including a large number of minor nuisances, such as choked drains and dirty yards, the abatement of which was accomplished at the time of visit, and without legal notice	...	...	...	...	7,442
Inspections to learn if works ordered were in progress	...	...	...	...	10,636
Common yards and courts in the worst localities specially visited on Friday afternoons and Saturday mornings to obtain weekly cleansing of same	...	...	...	...	42,439
Inspections after infectious disease	...	...	...	...	1,155
Supervisions of works in progress	...	...	...	...	3,669
Inspections of milk shops and ice creameries	...	...	...	...	1,372
" bakehouses	...	...	...	...	642
" offensive trades	...	...	...	...	483
" wholesale margarine warehouses	...	...	...	...	386
" as to limewashing of tenements	...	...	...	...	7,813
" re removal of ashpits (in connection with the Corporation's offer of free tubs)	...	...	...	...	1,158

* Some ashpits have more than one privy attached.

† 13 of these have been provided on premises where the accommodation was previously insufficient.

‡ 655 of these resulted from the Corporation's offer of free tubs.

§ In addition to this number, the District Inspectors have daily had premises cleansed on verbal order.

(Signed) W. H. WELLS,

INSPECTOR OF NUISANCES.

TABLE X.

SUMMARY OF LEGAL PROCEEDINGS ORDERED TO BE TAKEN BEFORE
THE MAGISTRATES FOR THE ABATEMENT OF NUISANCES, &c.,
DURING THE YEAR 1905.

NATURE OF COMPLAINT.	No. of cases.	HOW DISPOSED OF.
Foul Privies and Ashpits.	10	In 3 cases the owners were summoned, and the cases withdrawn on the nuisances being abated, and court costs paid by defendants. In 7 cases the nuisances were abated before the summonses were applied for.
Defective Drains, Soil-pipes, etc.	24	In 1 case the owner was summoned, and the case withdrawn on the nuisance being abated, and court costs paid by defendant. In 23 cases the nuisances were abated before the summonses were applied for.
Choked Drains.	2	Nuisances abated before the summonses were applied for.
Defective Waterclosets.	4	In 1 case the owner was summoned, and the case withdrawn on the nuisance being abated, and court costs paid by defendant. In 3 cases the nuisances were abated before the summonses were applied for.
Defective Privies.	1	Nuisance abated before the summons was applied for.
Want of, or Defective, Privy Pails	9	Pails provided before the summonses were applied for.
Want of Ashtubs.	5	Tubs provided before the summonses were applied for.
Defective Rainspouts.	1	Nuisance abated before the summons was applied for.
Foul Accumulations.	1	Ditto.
Defective House Roofs.	13	In 1 case the owner was summoned, and the case withdrawn on the nuisance being abated, and court costs paid by defendant. In 12 cases the nuisances were abated before the summonses were applied for.
<i>Carried forward ...</i>	70	

TABLE X.—*Continued.*

SUMMARY OF LEGAL PROCEEDINGS ORDERED TO BE TAKEN BEFORE
THE MAGISTRATES FOR THE ABATEMENT OF NUISANCES, &c.,
DURING THE YEAR 1905.

NATURE OF COMPLAINT.	No. of cases.	How DISPOSED OF.
<i>Brought forward ...</i>	70	
Defective Pavements of Yards, &c.	5	Nuisances abated before the summonses were applied for.
Foul Ashpit.	1	Nuisance abated before the summons was applied for.
<i>Tenement Bye-laws.</i> — Contravention of Bye-law 6 (Overcrowding).	1	Occupier summoned. Summons withdrawn on overcrowding being abated.
Contravention of Bye-law 12 (water-closet accommodation).	1	Accommodation provided before the summons was applied for.
Contravention of Bye-law 16 (water-closet structure and apparatus).	10	In all cases the work was done before the summonses were applied for.
Contravention of Bye-law 17 (structure of privies and maintenance in good order of receptacles for filth).	4	Ditto.
Contravention of Bye-law 18 (dirty water-closets).	2	In both cases the w.c.'s were cleansed before the summonses were applied for.
Contravention of Bye-law 30 (means of ventilation of rooms not maintained in good order).	2	In both cases new sash-cords were provided before the summonses were applied for.
Contravention of Bye-law 31 (lime-washing of passages, staircases, yards, etc.).	1,326	In 13 cases summonses were issued, but withdrawn on the work being done, and costs paid by defendants. In 1,313 cases the work was done before the summonses were applied for.
Contravention of Bye-law 32 (rooms in dirty condition).	1	Room cleansed before the summons was applied for.
<i>Carried forward ...</i>	1,423	

TABLE X.—*Continued.*

SUMMARY OF LEGAL PROCEEDINGS ORDERED TO BE TAKEN BEFORE
THE MAGISTRATES FOR THE ABATEMENT OF NUISANCES, &c.,
DURING THE YEAR 1905.

NATURE OF COMPLAINT.	No. of Cases.	HOW DISPOSED OF.
<i>Brought forward</i> ...	1,423	
Contravention of Bye-law 33 (defective yard pavement).	3	In all cases the work was done before the summonses were applied for.
Contravention of Bye-law 34 (want of water supply).	8	In 1 case the owner was summoned and fined 5/- and costs. In 7 cases the water was provided before the summonses were applied for.
<i>Newcastle-upon-Tyne Im. provement Act, 1899, sec. 46</i> (want of water supply).	7	In all cases the water was provided before the summonses were applied for.
Total ...	1,441	Total amount of penalties, 5/-

(Signed), W. H. WELLS,

INSPECTOR OF NUISANCES AND COMMON LODGING HOUSES.

TABLE XI.

FOOD AND DRUGS ADULTERATION ACTS.

SAMPLES TAKEN FOR ANALYSIS DURING THE YEAR 1905.

Articles taken for Analysis.	Total No. of samples taken.	Result of Analysis.	Rotational No. of sample.	Proceedings taken and result.
New Milk	302	257 genuine.		
		1 was deficient in non-fatty solids 9.4%	104	These 6 samples were from one person—a farmer. They were taken “in course of delivery” at the Railway Station. The farmer was fined £6, <i>re</i> Nos. 111 and 112. The summonses respecting the other 4 samples were dismissed, defendant paying costs.
		1 was deficient in non-fatty solids 16.4%	106	
		1 was deficient in non-fatty solids 21.4%	108	
		1 was deficient in non-fatty solids 5.9%	109	
		1 was deficient in non-fatty solids 12.5%	111	
		1 was deficient in non-fatty solids 21.1%	112	
		1 was deficient in non-fatty solids 5.2%, and in milk fat 5.0%	105	Vendor summoned. Summons withdrawn by order of Sanitary Committee, defendant paying costs. Vendor cautioned by Committee.
		1 was deficient in milk fat 10.0%	59	From one person. Vendor summoned. Case dismissed, as Magistrates did not think defendant had tampered with the milk.
		1 was deficient in milk fat 5.0%	72	
		1 was deficient in milk fat 5.0%	75	Vendor cautioned.
		1 was deficient in milk fat 3.3%	78	
		1 was deficient in milk fat 3.3%	115	
		1 was deficient in non-fatty solids 0.2%	142	
		1 was deficient in milk fat 12.0%	130	These 6 samples were from one person—a farmer, and were taken “in course of delivery.” The farmer was summoned, and fined 5s. in each case.
		1 was deficient in milk fat 6.6%	132	
		1 was deficient in milk fat 11.3%	133	
		1 was deficient in non-fatty solids 2.8%, and in milk fat 10.0%	140	
		1 was deficient in non-fatty solids 1.0%, and in milk fat 13.3%	141	
		1 was deficient in non-fatty solids 0.8%, and in milk fat 6.6%	143	
Carried forward	302	Amount of penalties carried forward ...		£7 10 0

TABLE XI.—CONTINUED.

FOOD AND DRUGS ADULTERATION ACTS.

SAMPLES TAKEN FOR ANALYSIS DURING THE YEAR 1905.

Articles taken for Analysis.	Total No. of samples taken.	Result of Analysis.	Rotational No. of sample.	Proceedings taken and result.
Brought forward .	302	Amount of penalties brought forward ...		£7 10 0
New Milk (<i>contd.</i>)		1 was deficient in milk fat 5.0%	147	No proceedings were taken as the vendor was giving up the milk-selling business.
		1 was deficient in milk fat 6.6%	155	Vendor cautioned.
		1 was deficient in non-fatty solids 6.8%, and in milk fat 11.0%	181	Vendor summoned. Case dismissed on proof of warranty. Giver of warranty summoned. Case dismissed on defendant proving that he did not tamper with the milk.
		1 was deficient in milk fat 10.0%	183	Vendor summoned. Summons withdrawn by order of Sanitary Committee, on warranty being produced. Giver of warranty cautioned by Town Clerk.
		1 was deficient in milk fat 3.3%	199	
		1 was deficient in milk fat 10.0%	200	Vendor summoned. Fined 20/-.
		1 was deficient in non-fatty solids 1.4%, and in milk fat 10.0%	206	Vendor summoned. Fined 5/-.
		1 was deficient in milk fat 10.0%	213	Vendor summoned. Fined 5/-.
		1 was deficient in milk fat 10.0%	219	Vendor summoned. Fined 10/-.
		1 was deficient in milk fat 20.0%	208	(Samples 206, 213 and 219, were from the same person). Vendor summoned. Fined 10/-.
		1 was deficient in non-fatty solids 0.7%	211	
		1 was deficient in non-fatty solids 1.2%	223	
		1 was deficient in milk fat 6.6%	232	
Carried forward .	302	Amount of penalties carried forward ...		£10 0 0

TABLE XI.—CONTINUED.

FOOD AND DRUGS ADULTERATION ACTS.

SAMPLES TAKEN FOR ANALYSIS DURING THE YEAR 1905.

Articles taken for Analysis.	Total No. of samples taken.	Result of Analysis.	Rotational No. of sample.	Proceedings taken and result.
Brought forward .	302	Amount of penalties brought forward ...		£10 0 0
New Milk (contd.)		1 was deficient in milk fat 15.0%	236	These two samples were from the same person. The case <i>re</i> No. 236 was dismissed on proof of warranty. For the sample No. 245 defendant was fined 40/-, on her servant stating that he suspected the milk to be poor when he received it from the farmer, notwithstanding which, he sold it as usual. Warranty proved. Giver of same summoned, and fined £5 in each case.
		1 was deficient in milk fat 25.0%	245	
		1 was deficient in non-fatty solids 2.8%	241	
		1 was deficient in milk fat 6.6%	242	
		1 was deficient in milk fat 6.6%	243	
		1 contained formaldehyde 16 parts per 100,000	253	Vendor summoned. Summons withdrawn by order of Sanitary Committee.
		1 was deficient in non-fatty solids 5.7%, and in milk fat 3.3%	257	Vendor cautioned by Medical Officer of Health.
		1 was deficient in non-fatty solids 1.2%	262	Vendor cautioned by Medical Officer of Health. (This sample and No. 257 were from the same person).
		1 was deficient in milk-fat 43.3%	306	Vendor summoned. Fined 40/-.
		1 was deficient in non-fatty solids 5.4%, and in milk-fat 3.3%	401	These were from the same person. Vendor summoned and fined 40/- in respect of No. 401. No proceedings taken <i>re</i> No. 406.
		1 was deficient in non-fatty solids 3%	406	
Carried forward .	302	Amount of penalties carried forward ...		£26 0 0

TABLE XI.—CONTINUED.

FOOD AND DRUGS ADULTERATION ACTS.

SAMPLES TAKEN FOR ANALYSIS DURING THE YEAR 1905.

Articles taken for Analysis.	Total No. of samples taken.	Result of Analysis.	Rotational No. of sample.	Proceedings taken and result.
Brought forward .	302	Amount of penalties brought forward ...		£26 0 0
New Milk (contd.)		1 was deficient in non-fatty solids 10·4%, and in milk-fat 6·6%	410	Vendor summoned. Fined 40/-.
		1 was deficient in non-fatty solids 11·7%	419a	This was a sample submitted to the Medical Officer of Health by a person who suspected it as the cause of his child's sickness. A sample was taken from the person who supplied it. This was genuine.
Butter .	139	125 genuine.		
		1 was certified to be Margarine.*	30	Efforts were made to obtain further samples, but the seller said they did not now keep it.
		1 was certified to be Margarine.*	35	From the same vendor. 4 further samples taken, 2 were genuine, and 2 were margarine. (See Nos. 120 and 157).
		1 was certified to be Margarine.*	39	
		1 was certified to be Margarine.*	50	2 further samples taken—both genuine.
		1 was certified to be Margarine.*	51	3 further samples taken—2 were genuine, and 1 margarine. (See No. 118).
		1 was certified to be Margarine.*	80	3 further samples—2 genuine, 1 margarine. (See No. 129).
		1 was certified to be Margarine.*	89	3 further samples—2 genuine, 1 margarine. (See No. 128).
		1 was certified to be Margarine.*	95	1 further sample—proved to be margarine. (See No. 127).
		1 was certified to be Margarine, and to contain Boric Acid 0·31%	118	Vendor summoned. Summons withdrawn on advice of Town Clerk.
		1 was certified to be Margarine, and to contain Boric Acid 0·30%	127	Do.
		1 was certified to be Margarine, and to contain Boric Acid 0·30%	128	Do.
Carried forward .	441	Amount of penalties carried forward ...		£28 0 0

* Informal Samples.

TABLE XI.—CONTINUED.

FOOD AND DRUGS ADULTERATION ACTS.

SAMPLES TAKEN FOR ANALYSIS DURING THE YEAR 1905.

Articles taken for Analysis.	Total No. of samples taken.	Result of Analysis.	Rotational No. of sample.	Proceedings taken and result.
Brought forward .	441	Amount of penalties brought forward ...		£28 0 0
Butter . (<i>contd.</i>)		1 was certified to be Margarine, and to contain Boric Acid 0·30%	129	Vendor summoned. Summons withdrawn on advice of Town Clerk.
		1 was certified to be Margarine, and to contain butter-fat 27%, and Boric Acid 0·20%	120	Vendor summoned. Fined £5 under Margarine Act, for exposing margarine for sale not labelled, and selling to purchaser in plain paper. The summons respecting the excess of butter-fat was dismissed.
		1 was certified to be Margarine, and to contain butter-fat 25%, and Boric Acid 0·30%	157	Vendor summoned. Fined £10 under the Sale of Food and Drugs Act, for selling margarine for butter. Fined £5 <i>re</i> the excess of butter-fat. Fined £10, under Margarine Act, for selling to purchaser in plain paper. The summons issued for exposing margarine for sale not labelled, was withdrawn. (The two latter samples, Nos. 120 and 157 were from the same person).
Margarine .	27	24 genuine (but 5 of them contained Boric Acid, 4 to the extent of 0·2%, and 1, 0·31%)		
		1 contained 19% of butter-fat.*	364	2 further samples taken—1 genuine and 1 contained 14% butter-fat. (See No. 372).
		1 contained 15% of butter-fat.*	365	2 further samples taken—both genuine.
		1 contained 14% of butter-fat.	372	No proceedings taken.
Corn Flour .	8	All genuine.		
Ground Rice	10	All genuine.		
Carried forward .	486	Amount of penalties carried forward ...		£58 0 0

* Informal Samples.

TABLE XI.—CONTINUED.

FOOD AND DRUGS ADULTERATION ACTS.

SAMPLES TAKEN FOR ANALYSIS DURING THE YEAR 1905.

Articles taken for Analysis.	Total No. of samples taken.	Result of Analysis.	Rotational No. of sample.	Proceedings taken and result.
Brought forward	486	Amount of penalties brought forward		£58 0 0
Tapicoa	2	Both genuine.		
Cream of Tartar	8	All genuine.		
Tartaric Acid	4	All genuine.		
Ground Ginger	7	All genuine.		
Gregory's Powder	4	All genuine.		
Compound Liquorice Powder	4	All genuine.		
Flowers of Sulphur	4	All genuine.		
Syrup of Rhubarb	4	All genuine.		
Tincture of Rhubarb	4	All genuine.		
Olive Oil	3	All genuine.		
Camphorated Oil	3	All genuine.		
Whisky	1	Certified to be 31·6 degrees under proof.	137	Vendor summoned. Fined 20/-.
Rum	1	Genuine.		
Flour	5	All genuine.		
White Pepper	11	All genuine.		
Black Pepper	1	Genuine.		
Sago	1	Certified to contain Tapioca 100%	166	No proceedings taken.
Lard	28	27 genuine. 1 contained 2·35% of water.	322	Vendor cautioned by Town Clerk.
Cheese	8	All genuine.		
Bread	3	All genuine.		
Condensed Milk	5	All genuine.		
TOTAL	597	Amount of penalties carried forward		£59 0 0

TABLE XI.—CONTINUED.

FOOD AND DRUGS ADULTERATION ACTS.—CONTINUED.

PROCEEDINGS TAKEN IN RESPECT OF OFFENCES OTHER THAN ADULTERATION.

Offence.	Proceedings taken and result.
Amount of penalties brought forward ...	£59 0 0
<i>Refusing to sell</i> 1-lb. of Butter to Inspector ...	(Person summoned. Fined £5.
<i>Obstruction, i.e., withholding from Inspector a sample of "butter" previously parcelled up for his assistant</i>)	Person summoned. Case dismissed. Defendant in the above 2 cases was the same person.
Total amount of penalties	£64 0 0

(Signed) W. H. WELLS,

Inspector under the Food and Drugs Adulteration Acts.

TABLE XII.

REGISTERED COMMON LODGING HOUSES.

SUMMARY OF WORK DONE AND VISITS MADE DURING THE YEAR 1905.

Number of Houses on the register at the end of the year	71
Applications for registration (all granted)	12
New houses registered	12
Additional rooms registered in old houses	4
Houses closed	9
Inspections made in the day-time	14,344
„ „ night-time	663
Notices served { <i>re</i> washing of bed clothes 276)	414
{ „ limewashing of houses 138)	
Contraventions of Bye-laws :—	
<i>Re</i> Cleaning and ventilation of houses	12
„ Overcrowding	1
„ Cleansing of clothes	2
„ Removal of liquid filth	4
Structural defects in houses	18
Defective water-closets and drains	26
Choked drains, water-closets, &c. (cleansed)	30
Defective roofs and spouts	9
Dirty water-closets	2
Want of, or defective, ash-tub	1
Defective waste-pipe	1
Defective bedstead	1
Deaths reported (non-infectious disease)	4

TABLE XIII.

LODGERS OCCUPYING COMMON LODGING HOUSES IN THE CITY
DURING THE YEAR 1905.

	Year 1905.	Corresponding Nos. for Year 1904.
Average number of Lodgers per night	1,816	1,858
Highest number on any one night	1,855	1,931
Lowest " " " "	1,735	1,614
Number of Lodgers for whom accommodation was provided in the Common Lodging Houses of the City at the end of the year	2,389	2,321

(Signed) W. H. WELLS,

Inspector of Common Lodging Houses.

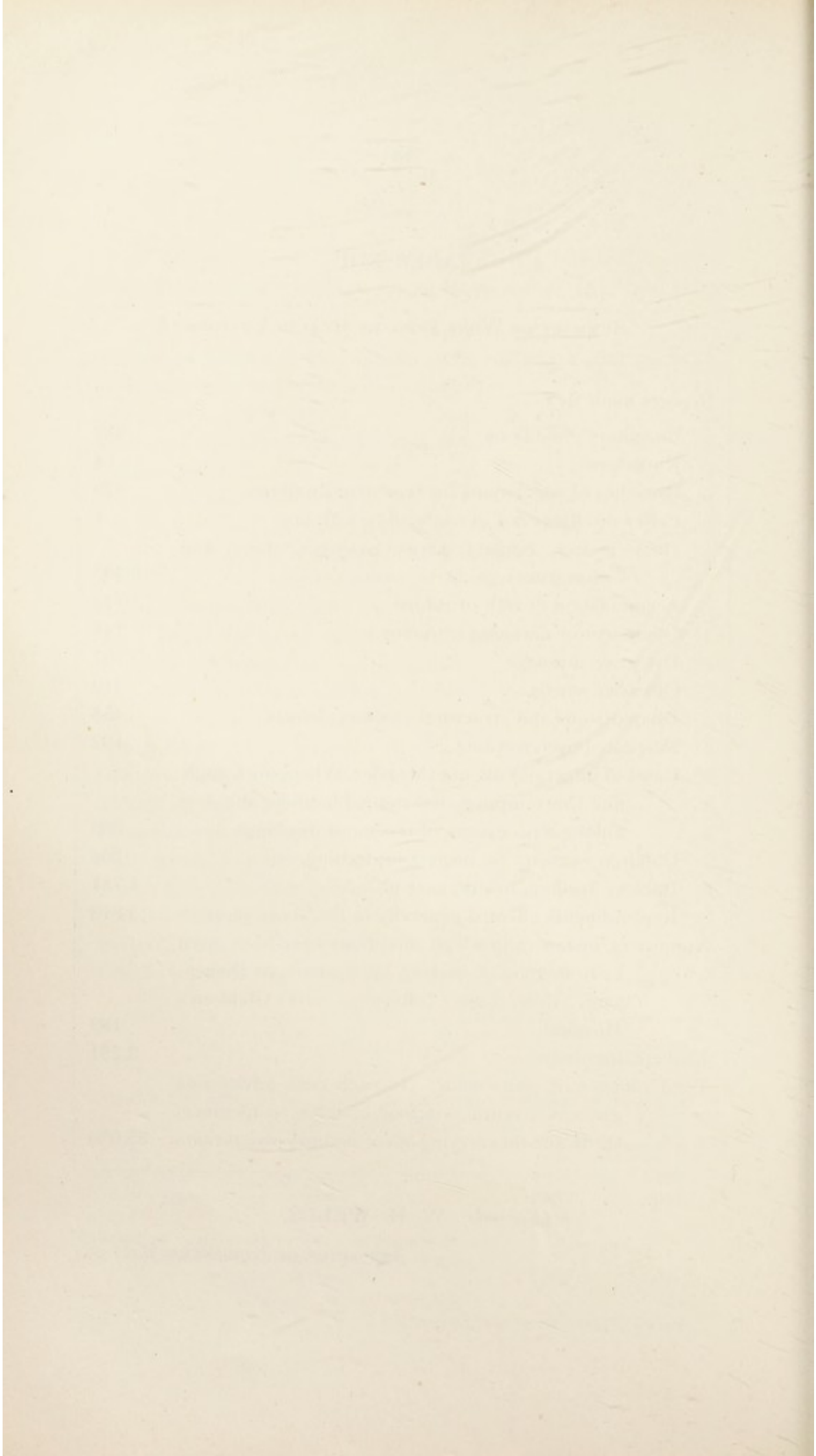
TABLE XIII.

SUMMARY OF WORK DONE BY HEALTH VISITORS.

Reports made as to:—	
Insanitary conditions	252
Nuisances	54
Breaches of regulations for tenement dwellings ...	429
Cellar dwellings not in conformity with law ...	1
Dirty houses, tenants, yards, passages, stairs, and conveniences	3,495
Accumulation of filth or refuse	172
Dampness or darkness of rooms	148
Defective drainage	57
Offensive smells	113
Dilapidations and structural sanitary defects ...	455
Suspected overcrowding	132
Cases of infectious disease (Measles, Whooping Cough, and Consumption, not notifiable under the Act) amongst occupants of tenement dwellings ...	209
Children—cruelty to, neglect of, feeding, etc. ...	208
Babies—feeding, health, care of	1,781
Improvements effected generally in the above matters	3,813
Number of instances in which directions have been given as to method of making applications to Dispensary, Poor Law, Infirmary, and Children's Hospital	169
Leaflets distributed	2,251
Total number of visits made. In each case advice was given as to ventilation, food, clothing, temperance, thrift, and the carrying out of sanitary precautions	25,030

(Signed) W. H. WELLS,

INSPECTOR OF NUISANCES, ETC.



APPENDIX B.

CITY AND COUNTY OF NEWCASTLE-UPON-TYNE.

REPORT
ON THE
PREMISES USED
FOR THE
MANUFACTURE OF ICE-CREAM,
BY THE
MEDICAL OFFICER OF HEALTH.

27TH MAY, 1905.

NEWCASTLE-ON-TYNE.
EASEY & BEST, 142, PILGRIM STREET.
1905.

REPORT

GOVERNMENT OF MASSACHUSETTS

REPORT

COMMISSIONER

MANUFACTURE OF ICE-CREAM

REPORT OF THE COMMISSIONER

1887

CITY AND COUNTY OF NEWCASTLE-UPON-TYNE.

REPORT

ON THE

PREMISES USED FOR THE MANUFACTURE OF ICE-CREAM,

BY THE

MEDICAL OFFICER OF HEALTH.

Reports on the Manufacture of Ice-Creams were made to the Committee in 1896 and 1898. Copies of the following Notice to Makers and Sellers of Ice-Creams were circulated among the manufacturers shortly after the passing of the Newcastle Improvement Act, 1899, and subsequently as occasion required.

CITY AND COUNTY OF NEWCASTLE-UPON-TYNE.

NOTICE TO MAKERS & SELLERS OF ICE CREAMS, &c.

Your attention is hereby drawn to Section 42 of the Newcastle-upon-Tyne Tramways and Improvement Act, 1899, of which the following is a copy:—

Any person being a manufacturer of or merchant or dealer in ice creams or other similar commodity who within the City:—

- (a) Causes or permits ice creams or any similar commodity to be manufactured sold or stored in any cellar or room in which there is an inlet or opening to a drain; or

(b) In the manufacture sale or storage of any such commodity does any act or thing likely to expose such commodity to infection or contamination or omits to take any proper precaution for the due protection of such commodity from infection or contamination ; or

(c) Omits on the outbreak of any infectious disease amongst the persons employed in his business to give notice thereof to the medical officer of health for the City ;

shall be liable for every such offence, on summary conviction, to a penalty not exceeding forty shillings.

The words "does any act or thing likely" &c., and "take any proper precaution for" &c., in the above Section may be better understood by reading the following requirements which are considered necessary by the Medical Officer of Health.

The 'cream' must not be brought into a living or sleeping room, or any place where animals are kept, or any place wherein also anything giving off offensive smell is kept, for mixing or boiling or for any purpose of manufacture or storage, and this applies also to the ingredients of the 'cream' before being mixed.

The 'cream' or ingredients of the 'cream' must not be placed in a yard wherein is a pail-closet, for cooling, freezing, storing, or for any other purpose; and not in any yard wherein is a water-closet, unless the yard is so large that the 'cream' or ingredients of the 'cream' can be placed, stored, cooled, or frozen, at a distance of at least fifteen feet from such water-closet.

The building, yard, or other premises, in or on which the 'cream' or ingredients of the 'cream' are placed, stored, boiled, cooled, frozen, or otherwise dealt with, must be in good repair, kept clean, and frequently washed with hot lime-wash.

The vessels in which milk for making the 'cream,' or in which any or all of the ingredients of the 'cream' are boiled, must not be used for any other purpose, and must be kept at all times scrupulously clean, and must not be used or stored in a living or sleeping room.

If, during the periodical inspection of your premises by the Sanitary Inspector, any contravention of the above is found, it will be my duty to report to the Sanitary Authority with a view to proceedings being taken against you for the recovery of the penalty to which you will be liable.

HENRY E. ARMSTRONG, D.Hy.,

MEDICAL OFFICER OF HEALTH.

The issue of the foregoing notice has led to a considerable improvement in the sanitary conditions under which the business is carried on. Several of the Italian makers and vendors of Ice-Creams were summoned some years ago before the Magistrates for breach of the provisions of the Act of 1899, with the result that some have had special places constructed in which to prepare the Ice-Cream, others have set apart a room for the purpose, others, again, have removed to more suitable premises. Since then the Ice-Creameries have been registered and kept under stricter supervision, and are now in a better condition than formerly. There is, however, still considerable room for improvement. The number of known premises where the manufacture is carried on has increased from 22 in 1898 to 75 at the present time, not counting places where Ice-Creams are sold but not made. These figures do not perhaps quite represent the actual facts, as in all probability the information collected by the Health Department is now more complete than it was seven years ago. Doubtless other such places will be started on the advent of warm weather.

The following table sets forth the number of premises on which Ice-Cream is made and the number of makers, Italian and otherwise respectively, in the different districts of the City:—

DISTRICT.	PREMISES.	MANUFACTURERS.
No. 1 (Benwell) . . .	9 (None occupied by Italians)	9 (No Italians)
No. 2 (Central) . . .	6 (4 „ „)	6 (4 „)
No. 3 (Elswick) . . .	1 (Not „ „)	1 (Not „)
No. 4 (Arthur's Hill) . .	3 (All „ „)	4 (All „)
No. 5 (Jesmond) . . .	3 (None „ „)	3 (No „)
No. 6 (Heaton . . .	15 (None „ „)	15 (No „)
Shieldfield) . . .	6 (1 „ „)	6 (1 Italian)
No. 7 (Byker) . . .	18 (3 „ „)	18 (3 Italians)
No. 8 (All Saints' West and East) . . .	14 (10 „ „)	19 (15 „)
No. 9 (Walker) . . .	None	
TOTALS . . .	75 (21 occupied by Italians)	81 (27 Italians)

The general nature of the business of Ice-Cream manufacture may be partly gauged by the following:—

DESCRIPTION OF PREMISES.

Group A.	Tenement houses	9	(7 occupied by Italians).
	Common lodging house	1	(„ „).
	Private houses	5	(All „ „).
	Private houses (where rooms are let to lodgers)	3	(2 „ „).
	Two or three-room flats	4	(2 „ „).
		22	(17 „ „).
Group B.	Whole house (or flat) and shop	36	(2 occupied by Italians).
	Lock-up shop	7	(1 „ „).
	Special room or building	10	(1 „ „).
		53	(4 „ „).

The premises included in Group A are in general unsuited for the manufacture of Ice-Creams, there being no special room or place set apart for the purpose. In Group B, the preparation of Ice-Creams is for the most part included in the business of a general confectioner, and in such cases is, on the whole, free from objection.

The following is a list of insanitary conditions to which the Ice-Creams were found to be exposed during manufacture:—

PREMISES.

Part of manufacture in living room	*26	(7 occupied by Italians).
Part of manufacture in sleeping room	4	(1 „ „).
Part of manufacture in room (or yard) badly ventilated or dirty	13	(9 „ „).
Part of manufacture in room used for washing clothes	2	(None „ „).
Part of manufacture in room which is overcrowded	2	(1 „ „).

* In all, except two, of these cases, the room is occupied by from 1 to 3 persons, and is kept clean. In general the "cream" is kept in the room for the boiling process only, and is then removed.

PREMISES.

Part of manufacture in room where there is a drain inlet	3 (1 occupied by Italians).
Part of manufacture in room with other sanitary defects	4 (2 „ „).
Part of manufacture in yard with pail-closet	8 (3 „ „).
Part of manufacture in yard within 15 feet of water-closet	11 (8 „ „).
No special pan for boiling the "cream"	4 (None „ „).

In 20 instances a part of the manufacture takes place in a "scullery," *i.e.*, a room not used as a living-room, but where plates, &c., are washed, and where in some instances clothes are washed also. Most of these sculleries were found to be clean and in good sanitary condition.

In 41 of the 75 premises above described there is infringement, to a greater or less degree, of the provisions of the Newcastle Improvement Act, 1899, and the requirements thereunder as defined in the notice appended hereto.

It is much to be desired that all places for the manufacture of Ice-Creams should be under license, and kept in strict conformity with the law and requirements as defined in the foregoing notice. The licensing of the premises and business for a limited period would contribute largely to their better sanitary control.

HENRY E. ARMSTRONG,

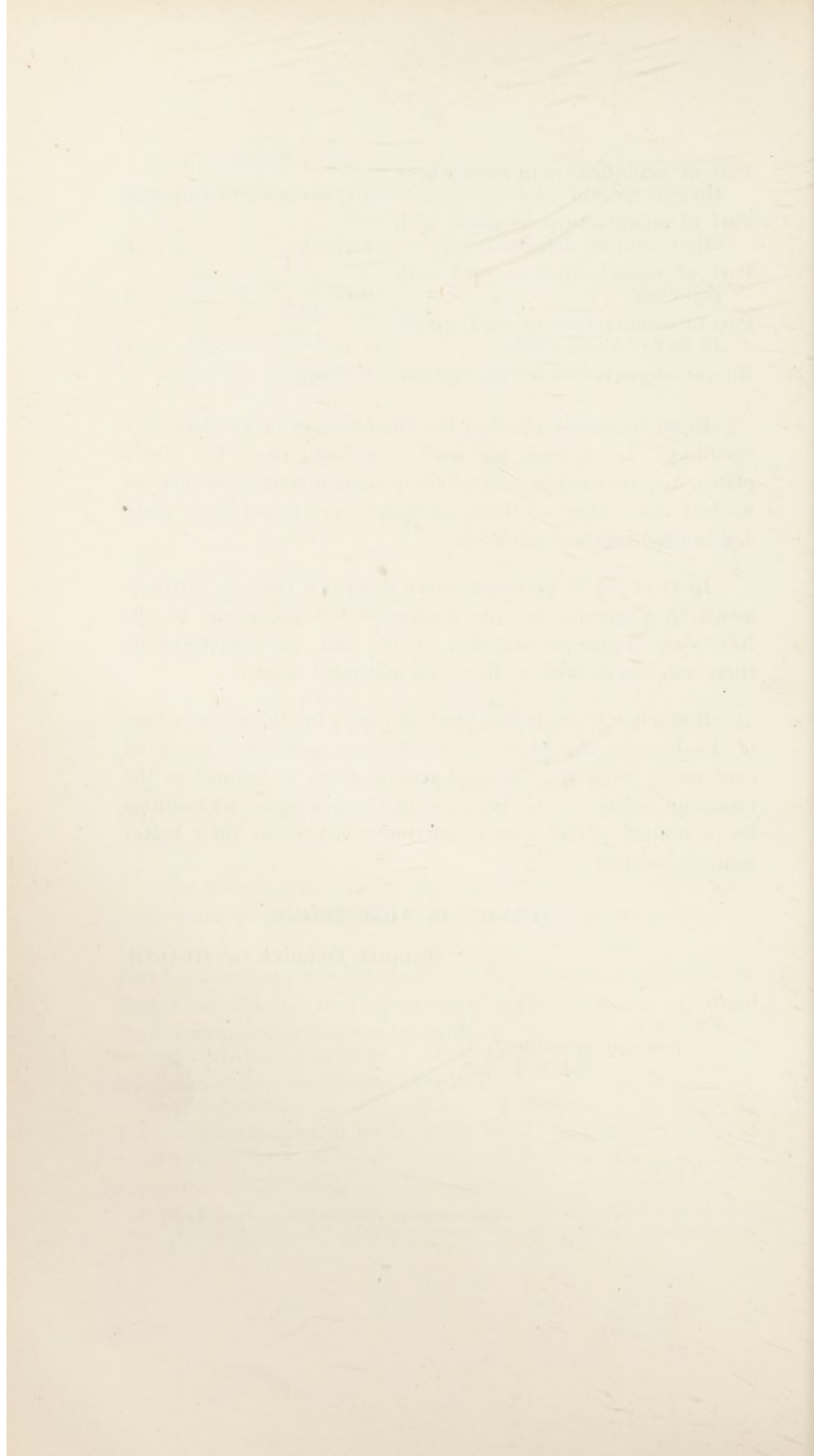
MEDICAL OFFICER OF HEALTH.

Health Department,

Town Hall,

Newcastle-upon-Tyne,

27th May, 1905.



City and County of Newcastle-upon-Tyne.

SALE OF FOOD AND DRUGS ACTS.

MILK ANALYSIS.

REPORT TO THE SANITARY COMMITTEE
ON THE
CIRCULAR OF THE BOARD OF AGRICULTURE
TO
LOCAL AUTHORITIES,
DATED 28TH DECEMBER, 1901,
AND ON
THE BOARD'S LETTER OF 27TH MARCH, 1905,
BY THE
MEDICAL OFFICER OF HEALTH.

NEWCASTLE-UPON-TYNE :
EASEY & BEST, PRINTERS, 142, PILGRIM STREET.

1905.

SUMMARY.

1. Examination of Board of Agriculture's proposal to Local Authorities as to vendor's explanation of his low-standard milk.
2. Difficulty of carrying out recommendation of Board of Agriculture as to taking of successive samples. Effect of this recommendation on the Bench and on the Farmer.
3. Explanation as to reason of poor quality of his milk by farmer (whether guilty or innocent), unreliable and unsatisfactory. "Appeal to the cow" an unfair tax on the ratepayer.
4. Farmer's explanation best made to Magistrates.
5. Farmer's proper responsibility and power of self-protection.
6. Board of Agriculture's recommendation to let farmer *explain* to Sanitary Authority is an innovation and contrary to invariable rule with other tradesmen.
7. Farmer's *duty* the same as that of other tradesmen.
8. Board of Agriculture's recommendation with respect to milk testing and examination, and probable results of attempt to carry it into effect.
9. Method of milk testing suggested by Board of Agriculture not likely to be fairly tried by farmer. Farmer should test for himself.
10. Milk standard already fixed so low as to be easily attainable, hence farmer has no claim for special privilege.
11. Low milk standard benefits only a few low-class farmers, whilst it injures all others, as well as all consumers.
12. Criticism of present low milk standard.
13. The duty of Sanitary Authorities is to protect the helpless consumer, not the producer, who has ample lawful means and methods of promoting his own interests.
14. Higher milk standard desirable. Every person *found selling* milk below fixed standard should be prosecuted.

1. "The Board . . . have received numerous representations from dairy farmers and others complaining, etc., etc., . . . in the absence of any special circumstances indicating the commission of fraud, the Local Authority might, in the first instance, call the attention of the vendor to the adverse report of the analyst, and afford him an opportunity of submitting any explanation he might desire to offer on the subject."

The latter paragraph of the above quotation consists of two parts, viz. :—

- (1) "The absence of any special circumstances indicating the commission of fraud."
- (2) The Local Authority to "call the attention of the vendor . . . and afford him an opportunity of submitting any explanation, etc."

With respect to the first of these parts, it may be observed that this point can only be determined after hearing the evidence on both sides. The vendor's disclaimer of fraud is not proof of his innocence, and his admission of guilt is not to be expected.

The circumstances bearing on the quality of a given milk supply are so complex, and the opportunities of plausible excuse for its poorness so many and varied, as, in most cases, to deprive a Local Authority of the means of determining the truth or falsity of any explanation offered.

As regards the second part of the paragraph, the attention of the vendor will be called to the circumstance by the summons, after the service of which, and before the hearing of the case in Court, he may submit his explanation to the Local Authority. The Local Authority of Newcastle, whilst not *inviting*, has received, and has never refused to receive and consider such explanation when offered voluntarily.

Respecting decision on such explanations, the Local Authority being the prosecutor, is not precisely in the position of a Grand Jury, yet even the latter body decides on the *prima facie* case of the prosecution without hearing the defence. For the Local Authority to go further and constitute itself a preliminary tribunal to *invite*, inquire into, and in a certain sense, adjudicate upon, an explanation, parts of which may afterwards be used against a defendant in Court, is wrong in principle.

Moreover, inasmuch as by far the largest majority of milk vendors are merely retailers without any knowledge of the circumstances which

might be considered to exculpate the producer of a milk below standard, any invitation of the kind to them would be altogether out of place.

Further
Extract from
Board of
Agriculture's
Letter.

2. " . . . if the explanation were one which the Local Authority felt able to accept, they might, in the exercise of their discretion, refrain from the institution of proceedings, or withdraw any summons which it might have been necessary to take out in order to avoid the failure of proceedings, at the same time making arrangements for the taking of further samples of the milk supplied, in order that a satisfactory conclusion as to its character might be arrived at."

One objection to the foregoing proposal is the difficulty (often great) of finding a particular retail vendor of milk from whom to take further samples on several successive occasions within a reasonable time after the first sample was obtained. Another objection is that it leads the Court to be disinclined to convict, except on evidence of repeated and persistent adulteration. The consequence is that it acts as a direct incentive to the fraudulent dealer (whether producer or merchant), who feels that he may adulterate with impunity until a first sample is taken by the Authority for analysis. This is his warning, and he then ceases to adulterate, so that the succeeding samples afford no ground for a conviction.

3. In attempting to shew why their milk was below standard, the same explanation would be given by the fraudulent as by the ingenuous producer, and the Sanitary Authority would be unable to distinguish the one from the other. Hence the Board's recommendation would shield both alike, and go a long way towards nullifying the protection to the public which is the primary object of the Food and Drugs Acts. If to this objection the Board urge that in every such instance there should be an "appeal to the cow," the cost of such appeals in the producers' interest would be a heavy and unfair tax on the ratepayers, and out of proportion to the benefit they would receive from it.

4. Any explanation the farmer might have to offer would, both for his own and the consumers' sake, be better made publicly in Court than privately before a Committee.

5. The milk vendor, whether farmer or retailer, is as responsible as any other tradesman for the quality of the article he sells. If he has his milk periodically analysed on his own account, he needs no Inspector to tell him when it is falling below standard. Therefore, in the absence of such periodical analyses, no defence should be accepted either by Sanitary Authority or Justices.

6. The recommendation of the Board of Agriculture is an innovation. All producers of goods, other than milk, have to protect their

own interests. The Board proposes to protect those of the milk producer only.

7. It is the farmer's *duty* to keep himself right with the law and the public. It is not the Authority's duty to do this for him. There is no reason why the farmer in this respect should be placed on a different footing from other tradesmen.

8. After indicating that the various Agricultural Colleges and Agricultural Departments of University Colleges, etc., are willing, for a fee of sixpence, to determine the percentage of milk-fat in any sample of milk sent to them, the circular of the Board of Agriculture goes on to state that the Board would be glad if the

"Local Authority would co-operate with them in the matter, and do what is possible to facilitate the testing of milk in the manner proposed."

The intention of this last quoted paragraph is not clear. It appears to suggest that the Local Authority should communicate with each dairy farmer and cowkeeper supplying milk to their district, and urge him to act on this recommendation of the Board of Agriculture. In the case of a district such as that of Newcastle, owing to the multiplicity of dairy farmers, the frequent variations in their number and constituency, and the immense distances from which many of them send their produce to the city, there can be no accurate register of these tradesmen. Even if obtainable, such a record, though perhaps fairly reliable to-day, would not be so to-morrow.

If the foregoing be the correct interpretation of the paragraph above quoted and what it involves, the carrying out of the Board's suggestion will be exceedingly difficult, if not well nigh impossible. Furthermore, for the Local Authority to circularise each milk producer of the surrounding counties in the hope of reaching all the suppliers of its particular district, would, on the one hand, mean, in the majority of instances, communication with many persons not concerned, and on the other, would flood the farmers with notices from all Local Authorities within a hundred or two hundred miles of their respective dairies! Such an idea is therefore obviously out of the question.

9. The recommendation that the farmer's milk should be frequently tested is, in itself, good; but the method suggested—apart from many other objections—is insufficient to attain its object. It is not likely that a farmer will send samples of his milk to a distant laboratory for analysis every week. To expect him to do so *every day*—and such examinations ought to be made daily—would be absurd. On the other

hand, by the purchase of a Milk Tester costing a guinea, he may easily and rapidly determine for himself the amount of butter-fat whenever he chooses.

The surest way to cause Dairy Farmers and Cowkeepers to test their produce frequently and carefully, is to prosecute in every case where milk is found to be below standard.

10. In considering the general question, it is to be borne in mind that the limits fixed by the Sale of Milk Regulations are low, very much below the figures for average milk, and that several members of the Milk and Cream Committee were in favour of fixing higher limits. A farmer who is careful as to the breed and feeding of his cows, the intervals between successive milkings, and the regular testing of his milk, may easily keep his supply not only up to, but above, the standard.

11. A low milk-standard benefits (at the expense of their customers) a few producers only, the inferior class of whose stock or whose method of conducting business disentitles them to such special consideration. On the other hand, it hurts the main body of milk producers whose superior article brings them no higher price than is commanded by poorer stuff.

Further, it is a direct suggestion which may be acted on to the detriment of consumers, that good milk can, without risk to the dairyman, be reduced in quality.

12. That there must be a milk standard is a matter of course; but to fix it at barely above the poorest average quality known is—except for the serious loss it entails on the consumer—ridiculous.

13. It is for Sanitary Authorities to protect the helpless consumer of milk rather than the resourceful producer, who may (if so disposed), keep cows of a class to produce milk naturally below standard, feed them on brewers' grains, or give them an undue amount of water to drink, and thereby actually dilute the milk before it leaves their bodies; or even add skim milk to it, and thus reduce its quality after yield; and by any or all of these processes, without breach of law or fear of penalty therefor, make as much unfair profit as the illegal adulterator.

14. If, instead of the complicated and unusual course recommended by the Board of Agriculture, a somewhat higher milk standard were adopted and strictly adhered to, and if every person found selling milk below it were prosecuted, leaving him (in case of his being merely

a middleman or retailer) to seek his own remedy against the producer who had supplied him, then the interests of milk consumers would be more thoroughly protected, the difficulties of administering the law with respect to adulteration would be greatly reduced, and justice against offenders would be more readily secured.

HENRY E. ARMSTRONG,

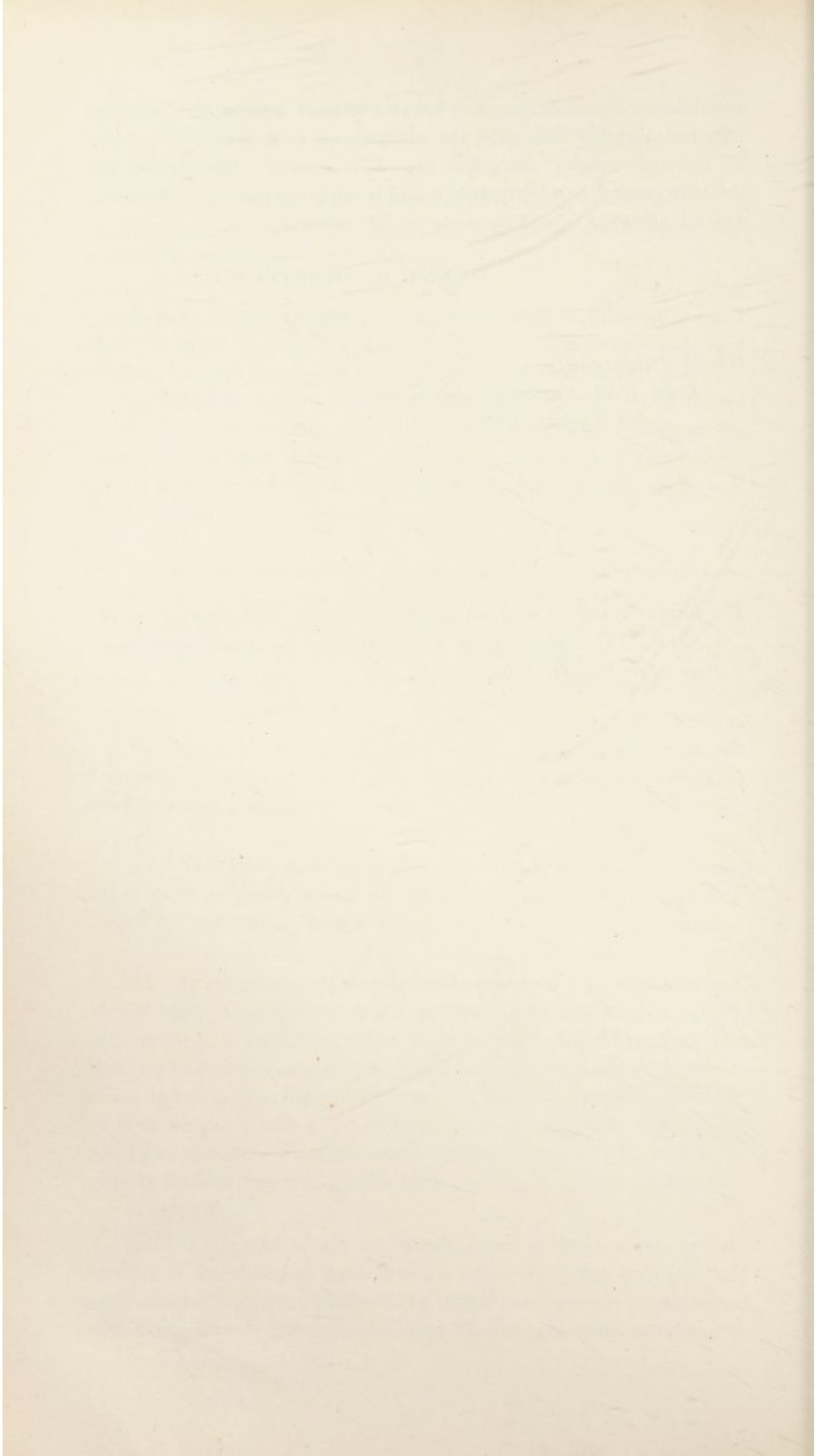
Medical Officer of Health.

Health Department,

Town Hall, Newcastle-upon-Tyne,

4th August, 1905.

*The foregoing Report was considered, approved, and adopted by the
Sanitary Committee of the Corporation of Newcastle-upon-Tyne,
on 21st August, 1905.*



CITY AND COUNTY OF NEWCASTLE-UPON-TYNE.

MIDWIVES ACT, 1902.

SUMMARY OF REPLIES
FROM
THE MEDICAL OFFICERS OF HEALTH
OF
THIRTEEN LARGE PROVINCIAL TOWNS
TO
QUERIES
OF THE
MEDICAL OFFICER OF HEALTH
OF
NEWCASTLE-UPON-TYNE.

SEPT., 1905.

NEWCASTLE-UPON-TYNE:
EASEY & BEST, 142, PILGRIM STREET.

MIDWIVES

SUMMARY OF INFORMATION RECEIVED FROM THE MEDICAL

	No. of Certificated Midwives practising in district.	Has Authority appointed a Superintendent to supervise the work of the Midwives?	Qualifications of the person appointed.
	1	2	3
BRADFORD ...	48	Not yet, but intend to.	.....
BRISTOL ...	78	Done by 4 Police Divisional Surgeons.	See No. 2.
CARDIFF ...	112	M.O.H. and Woman Inspector, the latter acting under M.O.H.	Woman Inspector has the Certificate of the Royal San. Inst., and is qualifying as a Certificated Midwife.
HULL ...	57	Yes.	Trained Nurse and Midwife (L. O. S.), and qualified Inspector of Nuisances.
LEEDS ...	80 (in addition 69 who have not given notice of intention to practice).	Chief Woman Inspector is a registered Midwife, and supervision of Midwives is under her care,	L.O.S. Certificate and San. Inst. Cert.
LIVERPOOL ...	354	Yes.	Late Matron Liverpool Lying-in Hospital.
LEICESTER ...	43	No.	.....
MANCHESTER ...	152 (142 resident, 10 non-resident)	Yes, a Lady.	M.B., Ch. B., Edin.: D.P.H.
NOTTINGHAM ...	46	At present, M.O.H. and 2 Lady Inspectors; works well.	M.O.H., at one time Resident Accoucheur at a London Hospital. Lady Inspectors both trained nurses.
PORTSMOUTH ...	55	A Female Inspector.	Experienced in Midwifery, Certificated Midwife (Queen Charlotte Hospital), and Cert. of San. Inst.
SALFORD ...	58	At present, M.O.H. and Assistant M.O.H.	.....
SHEFFIELD ...	127	Chief Woman Inspector, who has taken a qualification in Obstetrics.	Diploma of C.M.B.
WEST HAM ...	21	No. M.O.H. acts as Executive Officer.	.....

ACT, 1902.

OFFICERS OF HEALTH OF THE UNDERMENTIONED TOWNS.

Does the person appointed, if any, devote the whole of his or her time to the duties of the office? 4	Salary paid for this work. 5	Have you any printed regulations relating to the office? If so, kindly forward copy. 6	Action taken by Authority against any Midwife for failure to comply with the Act. 7
.....			
No.	20 gs. each for present year.	No.	None.
No.	Woman Inspr., £80—£100.	No.	One Midwife reported to C.M.B., and removed from Midwives Roll.
Yes.	£120	Copies enclosed.	None.
No.	No special salary	No.	„
Yes.	£150	No.	„
.....	„ ..	.....	Cases have been investigated, and Midwife censured by Sanitary Committee.
Yes.	£250	Provisional Statement of Duties and two booklets: (1) Instructions to Midwives. (2) Instructions as to care of Infants.	Two Midwives reported to C.M.B. and strongly censured.
No.	Nothing extra	None at present.	Quite a long list dealt with in disciplinary manner, and several reported to C.M.B.
No.	£75—£100	No.	One Midwife suspended for one month after having three puerperal cases.
.....	Nil	Yes (copy enclosed).	None.
No.	None yet, but increase is to be made on account of midwifery work	No.	Case of breach of rules at present under consideration.
No.	.....	No.	None.

Health Department,
Town Hall,
Newcastle-upon-Tyne.

HENRY E. ARMSTRONG,
Medical Officer of Health.

29th September, 1905.

APPENDIX E.

DIPHTHERIA,

ITS EXTENT AND FATALITY

IN THE

LARGE PROVINCIAL TOWNS OF ENGLAND

AND WALES,

AND IN THE

HOSPITALS OF THE METROPOLITAN ASYLUMS BOARD

DURING THE YEARS 1894-1904 INCLUSIVE,

IN RELATION TO THE USE OF

ANTITOXIC SERUM

IN THE TREATMENT OF THE DISEASE.

OCTOBER 3RD, 1905.

NEWCASTLE-UPON-TYNE:
EASEY & BEST, PRINTERS, 142, PILGRIM STREET

ENGLAND AND WALES.

DIPHTHERIA.

The following tables have been prepared from (a) statistics of notified cases of the disease, courteously furnished by the Medical Officers of Health of the large provincial cities and towns; (b) the Registrar General's Annual Summaries of Deaths; (c) the Annual Reports of the Metropolitan Asylums Board. The object of the tables is to shew as fully as possible the extent and annual fatality (actual and relative) of Diphtheria in England and Wales since the introduction of Anti-diphtheritic Serum in the treatment of the disease. This object is to some degree frustrated by the want of definite information as to the precise dates at which the serum came into use in the respective provincial towns, and the relative extent of its employment in each. It is also affected by the question of probably increased accuracy of diagnosis in recent, as compared with earlier, years. Apart from these points, certain facts stand out prominently in the tables, viz.:—

1.—That during the eleven years ended 1904, 64,498 cases of Diphtheria have been treated in the Hospitals of the Metropolitan Asylums Board, and 95,692 have been notified in the 31 large English towns named in Table I., making a total of 160,190.

2.—That the deaths from Diphtheria in the above period have been as under, viz.:—

In Metropolitan Asylums Board Hospitals	...	9,512
In 31 large provincial towns	... ..	18,869
Total	... ..	28,381

These figures represent a mortality rate per	
cent. of	17.7

3.—That Diphtheria (as notified) has during recent years shewn a greatly increased general prevalence in the large urban districts of England and Wales, the maximum for the 31 towns (12,721 cases) having occurred in the year 1900, since when a gradual reduction has taken place (see Table I.) The numbers during the latter half of the period, however, greatly exceed those of the former half. This prevalence is for the most part due to the increase of the disease in certain towns only (as shewn in paragraph 5).

4.—That the above increase is only in small part, if at all appreciably, to be explained by the growth of the populations in the towns in question. Thus, apart from the periods of greatest prevalence, the total number of cases in the last of the eleven years in question (9,553), is more than double that of the first year (4,535). The average yearly number of notifications in these provincial towns during the five years 1894-1898 inclusive is 5,625, and during the six years immediately following 11,261. These figures denote a rate of increase of the disease out of all proportion to that of the population.

5.—That the foregoing increased prevalence has been chiefly due to epidemics in some sixteen of the large towns, lasting for the most part for three or more years. These outbreaks are indicated in Table I. by heavier type.

6.—That in the London Hospitals the number of cases for the five years 1894-98 inclusive averaged 4,809 per annum, and in the six years 1899-1904 inclusive 6,742 per annum.

7.—That in the 31 provincial towns specified the mean death rate per cent. to cases of Diphtheria has fallen (see Table III.) from 30.5 and 33.1 in 1894 and 1895 respectively, to 17.7 and 18.0 in 1903 and 1904 respectively. This reduction has for the most part been steady and gradual. The individual mortality rates of the respective towns in the Table cannot be satisfactorily summarised in detail here. They shew, however, the remarkable fact that during the first four of the years under report the death rate per cent. of cases from Diphtheria in one or other of seven of the towns reached a maximum of from 50.0 to 61.1 per cent.; and that during the last four years it fell in four towns to a minimum of from 6.5 to 3.6 per cent. In the Metropolitan Hospitals (see Table IV.) the mortality has fallen from 29.3 per cent in 1894 to 10.0 per cent. in 1904.

8.—That the reduced fatality of Diphtheria in the Metropolitan Hospitals coincides with the introduction of Antitoxin, which was first employed to a slight extent in the treatment of the disease towards the close of 1894, after which the fall in the death rate was marked. The direct effect of Antitoxin in the reduction of the mortality in the large provincial towns (see Table III.), although doubtless largely contributory to this result, cannot be so accurately gauged as in London, owing to the want of information as to the extent of its use, either in hospital or in private practice, in these towns.

HENRY E. ARMSTRONG,

*Health Department,
Town Hall,*

Newcastle-upon-Tyne,

3rd October, 1905.

MEDICAL OFFICER OF HEALTH.

TABLE I.

ENGLAND AND WALES.

DIPHTHERIA.

Return shewing the number of cases notified during each of the years 1894-1904
in the undermentioned towns.

TOWN.	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	TOTAL.
Brighton ...	124	204	164	185	380	667	582	702	437	410	265	4,120
Bristol ...	128	165	258	205	217	215	512	908	1,109	1,134	1,051	5,902
Birmingham ...	406	741	1,194	713	689	720	542	533	787	884	630	7,839
Birkenhead ...	133	142	115	80	190	86	48	75	114	101	97	1,181
Bolton ...	25	34	29	17	27	52	56	91	202	142	150	825
Burnley ...	109	104	147	207	126	109	69	126	185	83	69	1,336
Blackburn ...	40	31	25	15	77	229	334	284	83	132	60	1,310
Bradford...	49	39	41	28	35	87	109	122	271	196	832	1,809
Croydon ...	161	132	172	135	162	127	187	448	285	259	312	2,380
Cardiff ...	326	229	296	512	940	628	706	724	636	438	389	5,874
Derby ...	46	43	45	57	74	60	52	74	63	83	150	747
Gateshead ...	73	50	65	28	37	19	18	30	37	44	48	449
Huddersfield ...	36	34	43	56	46	26	14	24	37	79	60	455
Halifax ...	43	29	37	67	23	58	41	61	37	50	80	526
Hull ...	86	105	156	195	119	157	99	231	480	494	526	2,648
Leicester ...	66	75	170	229	218	892	1,452	1,034	320	211	97	4,764
Liverpool ...	275	263	444	370	503	746	669	823	1,048	851	1,020	7,012
Leeds ...	*	129	120	180	853	1,752	1,213	1,012	648	588	347	6,842
Manchester ...	512	402	239	150	196	248	337	457	422	620	474	4,057
Norwich ...	120	77	94	61	53	123	65	150	79	87	72	981
Nottingham ...	Information not received.											
Newcastle ...	112	174	164	102	89	107	86	142	123	137	223	1,459
Oldham ...	67	70	61	38	39	71	94	56	187	201	158	1,042
Portsmouth ...	139	124	124	148	283	566	568	454	495	633	601	4,135
Plymouth ...	54	33	37	57	52	47	58	39	54	60	61	552
Preston ...	39	16	34	24	19	116	108	65	60	83	73	637
Swansea ...	23	31	29	44	503	837	494	198	199	134	216	2,708
Salford ...	242	194	158	103	97	184	309	420	292	335	422	2,756
Sheffield ...	149	122	138	136	332	2,244	2,454	1,598	969	492	400	9,034
Sunderland ...	23	26	26	32	26	19	50	76	63	94	74	509
West Ham ...	847	850	894	675	969	1,256	1,300	1,170	994	548	518	10,021
Wolverhampton	82	308	360	311	202	105	95	106	91	46	78	1,784
TOTAL ...	4,535	4,976	5,879	5,160	7,576	12,553	12,721	12,233	10,857	9,649	9,553	95,692

* Not notified.

TABLE II.

ENGLAND AND WALES.

Number of Deaths from Diphtheria in each of the undermentioned towns during each of the years 1894-1904. Extracted from the Annual Summaries of the Registrar-General.

TOWN.	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	TOTAL.
Brighton	26	18	19	12	21	61	72	64	36	32	15	376
Bristol	48	34	37	35	44	33	100	124	185	118	103	861
Birmingham ...	75	183	270	147	131	147	75	84	131	136	127	1,506
Birkenhead ...	41	45	22	26	49	24	11	28	27	11	28	312
Bolton	10	16	14	6	8	14	20	27	43	37	28	223
Burnley	29	43	48	60	30	26	22	40	45	20	12	375
Blackburn ...	18	9	10	8	31	72	89	65	23	26	11	362
Bradford... ..	17	20	17	15	17	27	33	33	85	55	162	481
Croydon	32	22	29	8	17	17	24	22	29	17	25	242
Cardiff	69	56	62	90	129	61	81	78	89	35	31	781
Derby	5	6	10	9	9	8	7	20	12	3	30	119
Gateshead ...	21	19	18	8	10	8	5	13	12	11	14	139
Huddersfield ...	22	15	21	20	13	5	2	6	13	14	14	145
Halifax	12	14	21	9	8	15	13	18	9	10	17	146
Hull	29	37	51	32	17	29	19	43	88	76	63	484
Leicester	13	35	64	73	62	227	330	154	34	28	6	1,026
Liverpool.. ...	97	120	157	126	147	212	162	182	210	162	193	1,768
Leeds	73	65	49	67	223	328	253	174	94	65	47	1,438
Manchester ...	146	108	81	47	53	83	101	132	118	135	96	1,100
Norwich	18	19	24	10	14	40	12	30	10	12	8	197
Nottingham ...												
Newcastle ...	32	52	39	25	30	29	32	34	23	37	49	382
Oldham	39	26	35	11	10	24	20	13	47	54	35	314
Portsmouth ...	33	19	20	28	55	121	103	72	67	75	71	664
Plymouth ...	5	10	13	13	10	20	11	12	14	14	14	136
Preston	8	8	12	4	8	39	45	18	28	21	23	214
Swansea... ..	10	12	10	11	124	141	61	18	24	21	24	456
Salford	63	62	49	32	32	75	90	140	74	86	113	816
Sheffield ...	66	52	56	44	94	460	461	242	114	40	47	1,676
Sunderland ...	9	8	8	4	9	9	22	30	15	31	27	172
West Ham ...	190	192	187	101	180	183	157	175	128	72	44	1,610
Wolverhampton	35	84	53	54	38	17	9	12	19	9	18	348
TOTAL ...	1,291	1,409	1,506	1,135	1,623	2,555	2,442	2,103	1,846	1,464	1,495	18,869

TABLE III.

ENGLAND AND WALES.

DIPHTHERIA.

Rate per cent. of deaths to cases notified in each of the undermentioned towns during each of the years 1894–1904. Calculated from returns of cases of the disease furnished by the Medical Officers of Health to the respective towns and the deaths in these towns as given in the Annual Summaries of the Registrar General.

TOWN.	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904
Brighton	20·9	8·8	11·6	6·5	5·5	9·1	12·4	9·1	8·2	7·8	5·7
Bristol	37·5	20·6	14·3	17·1	20·3	15·3	19·5	13·7	16·7	10·4	9·8
Birmingham ...	18·5	24·7	22·6	20·6	19·0	20·4	13·8	15·8	16·6	15·4	20·2
Birkenhead	30·8	31·7	19·1	32·5	25·8	27·9	22·9	37·3	23·7	10·9	28·9
Bolton	40·0	47·1	48·3	35·3	29·6	26·9	35·7	29·7	21·3	26·0	18·7
Burnley	26·6	41·3	32·6	29·0	23·8	23·9	31·9	31·7	24·3	24·1	17·4
Blackburn	45·0	29·0	40·0	53·3	40·3	31·4	26·6	22·9	27·7	19·7	18·3
Bradford	34·7	51·3	41·5	53·6	48·6	31·0	30·3	27·0	31·4	28·0	19·5
Croydon	19·9	16·7	16·9	5·9	10·5	13·4	12·8	4·9	10·2	6·5	8·0
Cardiff	21·2	24·5	20·9	17·6	13·7	9·7	11·5	10·8	13·0	8·0	8·0
Derby	10·9	14·0	22·2	15·8	12·2	13·3	13·5	27·0	19·0	3·6	20·0
Gateshead	28·8	38·0	27·7	28·6	27·0	42·1	27·8	43·3	32·4	25·0	29·2
Huddersfield ...	61·1	44·1	48·8	35·7	28·3	19·2	14·3	12·5	35·1	17·7	23·3
Halifax	27·9	48·3	56·8	13·4	34·8	25·9	31·7	29·5	24·3	20·0	21·2
Hull	33·7	35·2	32·7	16·4	14·3	18·5	19·2	18·6	18·3	15·4	12·0
Leicester	19·7	46·7	37·6	31·9	28·4	25·4	22·7	14·9	10·6	13·3	6·2
Liverpool	35·3	45·6	35·4	34·1	29·2	28·4	24·2	22·1	20·0	19·0	18·9
Leeds	†	50·4	40·8	37·2	26·1	18·7	20·9	17·2	14·5	11·1	13·5
Manchester	28·5	26·9	35·1	31·3	27·0	33·5	30·0	28·9	28·0	21·8	20·3
Norwich	15·0	24·7	25·5	16·4	26·4	32·5	18·5	20·0	12·7	13·8	11·1
Nottingham	Information as to cases not received.										
Newcastle	28·6	29·9	23·8	24·5	23·7	27·1	37·2	23·9	18·7	27·0	22·0
Oldham	58·2	37·1	57·4	28·9	25·6	33·8	21·3	23·2	25·1	26·9	22·2
Portsmouth	23·7	15·3	16·1	18·9	19·4	21·4	18·1	15·9	13·5	11·8	11·8
Plymouth	9·3	30·3	35·1	22·8	19·2	42·6	19·0	30·8	25·9	23·3	23·0
Preston	20·5	50·0	35·3	16·7	42·1	33·6	41·7	27·7	46·7	25·3	31·5
Swansea	43·5	38·7	34·5	25·0	24·7	16·8	12·3	9·1	12·1	15·7	11·1
Salford	26·0	32·0	31·0	31·1	33·0	40·8	29·1	33·3	25·3	25·7	26·8
Sheffield	44·3	42·6	40·6	32·4	28·3	20·5	18·8	15·1	11·8	8·1	11·7
Sunderland	39·1	30·8	30·8	12·5	34·6	47·4	44·0	39·5	23·8	33·0	36·5
West Ham	22·4	22·6	20·9	15·0	18·6	14·6	12·1	15·0	12·9	13·3	8·5
Wolverhampton ...	42·7	27·3	14·7	17·4	18·8	16·2	9·5	11·3	20·9	19·6	23·1
Mean Death Rate per cent. of cases in the above towns)	30·5	33·1	31·3	25·1	25·4	25·2	22·7	22·0	20·8	17·7	18·0

† Diphtheria not notifiable.

TABLE IV.

LONDON.

DIPHTHERIA.

Cases treated in the Hospitals of the Metropolitan Asylums Board.
 Extracted from the Annual Report of the Board for 1904.

YEAR.	Total Cases Admitted.	Number of Deaths.	Mortality.* Per cent.	REMARKS.
1888	99	46	59.3	
1889	722	275	40.7	
1890	942	316	33.5	
1891	1,312	397	30.6	
1892	2,009	583	29.3	
1893	2,848	865	30.4	
1894	3,666	1,035	29.3	Antitoxin first used in this year.
1895	3,635	820	22.8	
1896	4,508	948	21.2	Antitoxin used in severe cases, 66.2 % of the whole number.
1897	5,673	987	17.6	Antitoxin used in 80.2 % of the cases.
1898	6,566	991	15.3	Antitoxin used in 81.4 % of the cases.
1899	8,676	1,182	13.9	In these years Antitoxin has been given in about 80 % of the cases.
1900	7,873	988	12.2	
1901	7,622	849	11.1	
1902	6,520	739	11.0	
1903	5,072	504	9.7	
1904	4,687	469	10.0	

* The Mortality Rates of Patients in the Hospitals of the Board are calculated according to the Registrar-General's formula, *i.e.*, by dividing the deaths, multiplied by 100, by half the sum of the admissions, discharges, and deaths for the year.

Diphtheria cases have only been admitted into the Hospitals of the Board since 23rd October, 1888. The use of Antitoxic Serum in the treatment of Diphtheria began in 1894.

Average Annual Mortality per cent. during the years 1888-1893 ... 37.3
 " " " " " 1894-1904 ... 15.8

APPENDIX F.

CITY AND COUNTY OF NEWCASTLE-UPON-TYNE.

REPORT
ON THE
EPIDEMIC OF SMALLPOX,
FROM
18th MARCH, 1903, to 14th SEPTEMBER, 1905,
BY THE
MEDICAL OFFICER OF HEALTH.



Newcastle-upon-Tyne:
EASEY & BEST, 142, PILGRIM STREET.

1905.

APPENDIX

REPORT OF THE COMMISSIONER OF HEALTH

REPORT

EPIDEMIC OF SMALLPOX

IN THE CITY OF BOSTON

1871-72



Small text at the bottom, possibly a printer's mark or publication information.

CITY AND COUNTY OF NEWCASTLE-UPON-TYNE.

REPORT
ON THE
EPIDEMIC OF SMALLPOX,
FROM
18TH MARCH, 1903, TO 14TH SEPTEMBER, 1905,
BY THE
MEDICAL OFFICER OF HEALTH.

The first cases of Smallpox in the recent epidemic, two in number, were admitted to the Newcastle Smallpox Hospital on March 18th, 1903, from the Urban Sanitary District of Walker. The last patient was discharged from the Hospital, on 14th September, 1905. During this period of about two and a half years between these two dates the Hospital was continuously open. The number of notifications within the different years is stated below, viz.:—

	Notifications.
1903 (March—December) ...	... 155
1904 (January—December) ...	... 356
1905 (January—August) ...	... 103
TOTAL ...	... 614*

With certain exceptions, every case of the disease notified during the epidemic was promptly removed to Hospital. The exceptions, sixteen in all, comprise those of a woman who ran away from a common lodging house to Gateshead before the arrival of the ambulance; one infected at its home in Gateshead, developing the disease in Newcastle and removed back to Gateshead immediately after the appearance of the eruption; others found quite recovered after mild, and previously unrecognized attacks, &c.

* Not including cases in Walker and Benwell previous to the incorporation of those districts in November, 1904.

The weekly return of cases notified, as shewn on the following page, does not include those admitted to Hospital from Walker before the incorporation on November 9th, 1904.

The admissions to Hospital during the entire epidemic include the following:—

A.D.		Newcastle.		Walker before Incorporation.		Total.
1903	...	147	...	20	...	167
1904	...	354	...	4	...	358*
1905	...	103	...	—	...	103
		TOTAL		...	...	628

The total number of deaths from Smallpox was 28, representing a rate of 4·5 per cent. of cases treated in Hospital.

Of the total admissions, the condition of the patients as to vaccination and their death rates are as follows:—

I.—Cases presenting no vaccination cicatrix.

	Cases.	Deaths.	Death Rate per Cent.
A. Stated to have been vaccinated	16	4	25
B. Not stated to have been vaccinated	2	2	100
C. Stated to be unvaccinated	103	6	5·8
D. Stated to have been vaccinated but never successfully	17	2	11·7
TOTAL	138	14	10·1

Further details as to the above cases are given in the Appendix, Table I.

	Cases.	Deaths.	Death Rate, per cent.
II.—Cases presenting one or more Cica- trices of Primary Vaccination	477	14	2·9

For further particulars as to the above, see Appendix, Table II.

* This number includes the case of a lunatic admitted from the Coxlodge Asylum, and five patients who proved not to have Smallpox.

The weekly progress of the disease is shewn in the following return :—

Week Ending.	No. of Cases.	Week Ending.	No. of Cases.	Week Ending.	No. of Cases.	Week Ending.	No. of Cases.
1903.		1903.		1904.		1905.	
		<i>Bro. forward</i>	144	<i>Bro. forward</i>	130	<i>Bro. forward</i>	23
March 21	2	Nov. 21	2	June 25	11	January 28	6
" 28	3	" 28	1	July 2	8	February 4	5
April 4	1	Dec. 5	...	" 9	23	" 11	6
" 11	...	" 12	1	" 16	10	" 18	5
" 18	4	" 19	5	" 23	9	" 25	11
" 25	2	" 26	1	" 30	4	March 4	3
May 2	1	January 2	1	August 6	5	" 11	3
" 9	1			" 13	...	" 18	2
" 16	3	TOTAL ...	155	" 20	...	" 25	...
" 23	...			" 27	7	April 1	...
" 30	1	1904.		Sept. 3	3	" 8	...
June 6	2	January 9	6	" 10	8	" 15	...
" 13	1	" 16	2	" 17	6	" 22	1
" 20	6	" 23	3	" 24	7	" 29	...
" 27	1	" 30	...	October 1	3	May 6	...
July 4	1	February 6	2	" 8	8	" 13	7
" 11	1	" 13	...	" 15	5	" 20	...
" 18	4	" 20	11	" 22	16	" 27	11
" 25	6	" 27	6	" 29	11	June 3	2
August 1	2	March 5	...	Nov. 5	5	" 10	1
" 8	4	" 12	3	" 12	6	" 17	1
" 15	10	" 19	7	" 19	6	" 24	...
" 22	5	" 26	3	" 26	4	July 1	...
" 29	11	April 2	18	Dec. 3	11	" 8	5
Sept. 5	1	" 9	4	" 10	21	" 15	4
" 12	5	" 16	11	" 17	19	" 22	1
" 19	6	" 23	6	" 24	7	" 29	4
" 26	5	" 30	12	" 31	3	August 5	1
October 3	5	May 7	3			" 12	...
" 10	4	" 14	5	TOTAL ...	356	" 19	...
" 17	6	" 21	8			" 26	1
" 24	10	" 28	2	1905.			
" 31	5	June 4	5	January 7	4	TOTAL ...	103
Nov. 7	7	" 11	8	" 14	8		
" 14	18	" 18	5	" 21	11	GRAND TOTAL	614
<i>Car. forward</i>	144	<i>Car. forward</i>	130	<i>Car. forward</i>	23		

DISTRIBUTION OF SMALLPOX.

The distribution of the cases throughout the City in each year of the epidemic is indicated on the following Street List.

	1903.	1904.	1905.	TOTAL.
Addison Road	...	1	...	1
Addison Street	...	1	...	1
Akenside Hill	...	1	...	1
Alexander Street	...	3	...	3
Amelia Street	...	3	...	3
Ayton Street	...	4	...	4
Barras Bridge	...	2	...	2
Barrington Street	...	1	1	2
Bayswater Road	...	1	...	1
Beaconsfield Street	...	1	...	1
Bedford Street... ..	...	1	...	1
Bell Street	...	1	1	2
Belsay Place	...	1	...	1
Beresford Road	...	1	1	2
Blackett Terrace, Scotswood	...	1	4	5
Blagdon Street	...	1	...	1
Blandford Street	10	...	...	10
Blandford Street (west)	1	...	...	1
Blenheim Street	1	1	...	2
Bolingbroke Street	...	1	...	1
Bond Street	...	4	...	4
Bothal Street	...	1	...	1
Breamish Street	1	...	...	1
Brentwood Avenue	...	1	...	1
Brewery Bank, Quayside	...	2	...	2
Brinkburn Street	...	1	...	1
Brough's Buildings, Byker Bank	1	5	1	7
Brunel Street	1	1	...	2
Bulmer Street... ..	...	1	...	1
Buxton Street... ..	...	1	...	1
Byker Bank	1	2	...	3
Byker Buildings, Byker Bank	...	2	2	4
Byron Terrace	...	1	...	1
Caledonia Street, Walker	...	...	1	1
Canada Street... ..	1	1	...	2
Cardigan Terrace	...	1	...	1
Carliol Street	1	...	...	1
Carville Road	...	4	...	4
Carried forward	18	54	11	83

LIST OF STREETS.—Continued.

	1903.	1904.	1905.	TOTAL.
Brought forward	18	54	11	83
Cavendish Road	...	1	...	1
Chapel Street, St. Peters	...	12	1	13
Chapman Street	...	...	2	2
Charlotte Street	1	...	...	1
Chatham Place	...	8	...	8
Chirton Street... ..	...	1	...	1
Church Street, Walker	...	...	1	1
Churchill Street	...	1	...	1
City Road	...	1	...	1
Claremont Road	1	1	...	2
Clarence Crescent	...	1	...	1
Clayton Street... ..	...	1	...	1
Clifford Street... ..	...	2	...	2
Collingwood Gardens	...	1	...	1
Commercial Road	...	3	...	3
Conyers Road	1	1	...	2
Condercum Road, Benwell	...	1	...	1
Cookson Street	...	1	...	1
Corbridge Street	...	4	...	4
Coquet Terrace	...	1	...	1
Cowgate	...	1	...	1
Crawhall Road	...	1	...	1
Crozier's Buildings, St. Ann Street	...	1	...	1
Dale Street	1	1	...	2
Darnell Street... ..	...	3	...	3
Denton Road, Scotswood	...	...	2	2
Dinsdale Road... ..	...	2	...	2
Dispensary, Nelson Street	1*	...	...	1
Duke Street	...	2	...	2
Dunn's Cottages, Spital Tongues	1	...	...	1
Durham Street (back)	...	1	...	1
Eastbourne Gardens, Walker	...	...	1	1
Edward Street... ..	...	1	...	1
Eldon Square	1	...	...	1
Ellesmere Road, Benwell	...	1	...	1
Ellison Place	1	...	...	1
Elm Street, Benwell	...	1	...	1
Elswick Road	...	9	...	9
Elswick Row	1	...	...	1
Elswick Street... ..	1	...	...	1
Elswick Street (back)... ..	...	1	...	1
Carried forward	28	120	18	166

* The case of a non-resident in the City. The cases of residents presenting themselves at the Dispensary and found to have Smallpox are distributed to the streets in which they resided.

LIST OF STREETS.—*Continued.*

	1903.	1904.	1905.	TOTAL.
Brought forward ...	28	120	18	166
Elswick East Terrace...	2	1	...	3
Elvet Street ...	...	1	...	1
Evelyn Gardens, Benwell	...	...	4	4
Eversley Place...	1	...	...	1
Fairfield Road...	...	1	...	1
Fairless Street...	...	1	...	1
Falconar Street	...	1	...	1
Fell Street ...	...	3	...	3
Felton Street ...	...	1	...	1
Fern Avenue ...	1	...	...	1
Fife Terrace ...	...	...	6	6
First Avenue ...	...	1	...	1
Forsyth Road ...	1	...	...	1
Fourth Avenue	3	...	...	3
Friars ...	17	2	...	19
George Street ...	2	18	1	21
George Street (back) ...	2	...	...	2
Gibson Street ...	1	1	...	2
Gillies Street ...	...	1	...	1
Glasshouse Street	...	1	1	2
Glenthorn Road	...	2	...	2
Gloucester Road	...	1	...	1
Gluehouse Lane	...	4	...	4
Gowan Terrace	...	1	...	1
Grace Street ...	...	...	1	1
Grafton Street...	...	5	...	5
Grenville Terrace	...	1	...	1
Grenville Street	...	2	...	2
Grosvenor Road	2	...	...	2
Guildford Place	2	...	...	2
Hail's Yard, Pilgrim Street	1	...	...	1
Half Moon Lane, Quayside	...	1	...	1
Hannah Street...	...	1	...	1
Harbottle Street	...	3	...	3
Harriett Street	...	1	3	4
Hartington Street	2	...	...	2
Haymarket Buildings ...	1	...	...	1
Hazelwood Avenue	2	...	...	2
Heaton Hall Road	...	1	...	1
Helmsley Road	...	1	...	1
High Villa Place	...	1	...	1
Carried forward ...	68	178	34	280

LIST OF STREETS.—Continued.

	1903.	1904.	1905.	TOTAL.
Brought forward ...	68	178	34	280
Hindhaugh Street ...	...	1	...	1
Holly Avenue ...	...	...	1	1
Holmwood Grove ...	...	1	...	1
Hotspur Street, Heaton ...	...	1	...	1
Hotspur Street, St. Peter's ...	...	2	...	2
Howard Street ...	...	3	...	3
Hunters Road ...	...	2	...	2
Hutton Terrace ...	...	1	...	1
Ivy Street ...	...	...	2	2
James Street ...	1	...	...	1
James Place, Byker Bank ...	2	...	...	2
Janet Street ...	...	...	7	7
Jefferson Street ...	...	1	...	1
John Street ...	...	3	...	3
Johnson's Entry, Sandgate ...	...	4	...	4
King John Street ...	1	2	...	3
Kirk Street ...	1	...	...	1
Kyle Street ...	...	...	1	1
Langhorn Street ...	...	2	...	2
Laurel Street ...	...	...	2	2
Leazes Terrace ...	1	...	...	1
Leighton's Buildings, Quality Row ...	2	...	...	2
Lime Street ...	2	1	...	3
Lindisfarne Road ...	1	...	...	1
Lisle Street ...	1	...	...	1
Little Blagdon Street... ..	...	6	...	6
Liverpool Street ...	1	...	...	1
Long Row, Spital Tongues ...	...	2	...	2
Lord Street ...	...	1	...	1
Low Bridge ...	5	...	...	5
Low Friar Street ...	...	1	...	1
Malcolm Street ...	1	...	...	1
Maria Street ...	...	1	1	2
Marsden Street ...	...	1	1	2
Mason Street ...	...	1	...	1
Mayfair Road ...	...	4	...	4
Melbourne Street ...	...	2	...	2
Meldon Street... ..	...	1	...	1
Meldon Terrace ...	...	1	...	1
Carried forward ...	87	223	49	359

LIST OF STREETS.—*Continued.*

	1903.	1904.	1905.	TOTAL.
Brought forward ...	87	223	49	359
Middle Street ...	3	...	...	3
Milk Market ...	...	5	...	5
Mill Lane ...	2	2	...	4
Moor Street ...	...	1	...	1
Morpeth Street ...	1	1	...	2
Morrison Street ...	...	2	2	4
Mowbray Street ...	1	7	...	8
Myrtle Grove ...	...	1	...	1
New Bridge Street ...	2	...	...	2
Ninth Avenue ...	...	1	...	1
Noble Street ...	...	3	...	3
Norfolk Road ...	...	2	...	2
North Road ...	...	1	...	1
North View ...	...	1	...	1
Oakland Road ...	2	...	...	2
Oban Road ...	...	1	...	1
Ord Street, Scotswood ...	...	...	2	2
Ouse Street ...	...	...	1	1
Ouseburn Road ...	...	1	...	1
Oxnam Crescent ...	1	...	...	1
Oystershell Lane ...	1	...	...	1
Painter Heugh, Pilgrim Street ...	1	...	...	1
Panmure Street ...	1	1	...	2
Parker Street ...	1	4	...	5
Patterson's Court, Percy Street ...	3	...	...	3
Pearson Street (back), Walker ...	...	...	1	1
Percy Street ...	1	...	...	1
Percy Terrace ...	...	1	...	1
Philip Street ...	1	...	...	1
Pilgrim Street ...	3	2	...	5
Pine Street ...	1	1	...	2
Portland Road ...	...	1	1	2
Pottery Bank ...	...	...	1	1
Prudhoe Street ...	1	...	...	1
Raby Street ...	...	8	1	9
Race Street ...	1	...	...	1
Rachael Street ...	...	1	...	1
Railway Street ...	2	1	...	3
Rede Street ...	...	1	...	1
Carried forward ...	116	273	58	447

LIST OF STREETS.—Continued.

	1903.	1904.	1905.	TOTAL.
Brought forward	116	273	58	447
Rendel Street	...	3	...	3
Rendel Street (back)	...	...	3	3
Richmond Street	1	...	...	1
Ridley Place	...	...	1	1
River Street	...	3	1	4
Robinson Street	1	...	...	1
Robson Street	...	...	4	4
Robson's Entry, Sandgate	...	2	...	2
Rothbury Terrace	...	1	...	1
Royal Infirmary	2	3	...	5*
Russell Square	1	...	...	1
Sandhill	1	...	...	1
Sandgate	...	1	...	1
Sandyford Road	...	2	...	2
Sandyford Court, Sandyford Road	1	...	...	1
Sarah Street	...	1	...	1
Scarborough Road	...	1	...	1
Scotswood Road	4	6	6	16
Seaham Street	...	1	...	1
Shieldfield Lane	...	1	...	1
Shields Road (west)	...	4	...	4
Shipley Street	1	5	1	7
Simonside Terrace	...	1	...	1
South View	...	2	...	2
Spencer Street	...	2	1	3
St. Ann's Row	...	1	...	1
St. Ann Street	...	1	...	1
St. George's Terrace	2	2	...	4
St. Mary's Place	1	...	...	1
St. Michael's Road	...	1	...	1
St. Peter's Road	...	2	...	2
Staiths Cottage, Walker	...	...	1	1
Stanhope Street	1	...	...	1
Stanley Street, Walker Road	...	...	1	1
Stanton Street	...	2	...	2
Stepney Lane	...	4	1	5
Stone Street	1	...	...	1
Stowell Street	...	...	1	1
Stratford Grove (west)	...	...	1	1
Strawberry Place	...	1	...	1
Sycamore Street	2	3	...	5
Carried forward	135	329	80	544

* Non-residents in the City. The cases of residents presenting themselves at the Royal Infirmary and found to have Smallpox are distributed to the streets in which they resided.

LIST OF STREETS.—*Continued.*

	1903.	1904.	1905.	TOTAL.
Brought forward	135	329	80	544
Tamworth Road	...	1	...	1
Tavistock Road	...	...	1	1
Temple Street	1	...	...	1
Tenth Avenue	...	1	...	1
Thompson Street	1	1	1	3
Thornborough Street	1	1	...	2
Tosson Terrace	...	1	2	3
Tulloch Street	1	1	...	2
Tyne Terrace, St. Anthony's	...	1	1	2
Tynemouth Road	2	1	...	3
Union Road	1	1	...	2
Villa Place	...	2	...	2
Wallbrook Terrace	...	1	...	1
Waller Street	1	...	...	1
Walker Road	...	1	11	12
Walker Gate	...	...	1	1
Walpole Street, Walker Gate	...	1	...	1
Warwick Street	1	...	...	1
Welbeck Road... ..	...	3	...	3
Wellington Street	2	...	...	2
West View	...	2	3	5
Westgate Road	1	...	...	1
Wilkinson's Court, Byker Bank	2	...	...	2
William Street	...	1	...	1
Wingrove Avenue	2	...	...	2
Wharncliffe Street	2	...	...	2
Workhouse	...	2	1	3
York Street	...	2	...	2
Other cases occurring amongst non-residents in the City, who presented themselves at the Health Department, the Smallpox Hospital, and the surgeries of medical practitioners in the City. }	2	3	2	7
TOTALS	155	356	103	614*

* Not including cases in Walker and Benwell previous to the incorporation of those districts in November, 1904.

ISOLATION OF CONTACTS.

Throughout the course of the epidemic, the principle has been followed of removing all direct contacts from infected houses to the Isolation Hospital, and detaining them there under observation for at least thirteen days. The object of this course was, in the first place, to remove the healthy members of the family so that disinfection of the premises might be efficiently done; and in the second place, to prevent re-infection by the development at home of fresh cases after the removal of the first. The results of this practice appear in the following table:—

	1903. From March 18th.	1904.	1905. To Aug. 24th.	TOTAL.
"Contacts" removed to Isolation Hospital ...	592	1,510	449	2,551
Cases of Smallpox develop- ing in Isolation Hospital	19	54	13	86
Rate per cent. of "contacts" developing Smallpox in Hospital to total "con- tacts" removed... ..	3·2	3·6	2·9	3·4

The utility of specially segregating Smallpox contacts is shewn by the fact that no less than 86 or 3·4 per cent. of the total contacts removed developed the disease whilst in the Isolation Hospital. The following return shews the respective days on which the persons in question sickened with Smallpox after removal from their homes:—

Return shewing the day on which Contacts were transferred to the
Smallpox Hospital after admission to the Isolation Hospital

DAY.	1903 (from March 18th).	YEAR. 1904.	1905 (to Aug. 24).	TOTAL.
1st	...	1	...	1
2nd	5	9	...	14
3rd	1	4	3	8
4th	3	4	1	8
5th	...	3	...	3
6th	2	3	...	5
7th	...	1	2	3
8th	1	5	...	6
9th	...	4	...	4
10th	3	2	...	5
11th	3	6	...	9
12th	1	7	2	10
13th	...	5	3	8
14th	...	...	1	1
18th	...	...	1	1
TOTALS ...	19	54	13	86

Had the above 86 persons been allowed to remain at home, and go about their ordinary avocations, there can be no reasonable question as to the large spread of infection to which they would have given rise.

ORIGINS OF THE OUTBREAK AND SOURCES OF INFECTION.

As already stated, the first two cases of Smallpox in the outbreak were admitted to Hospital from Walker Urban District. Where they caught the disease was not ascertained. Naturally, infection was brought into the city from without on a great many occasions. How often this occurred cannot be conjectured. The following examples of different kinds shew the dangers to which a large city is exposed in epidemic times:—

- 1.—Smallpox patient had been working at Stanley, Co. Durham, and came home the day before taking ill.
- 2.—Patient walked from Birtley, Co. Durham, across Newcastle, to Gosforth, and was sent back from there to the Smallpox Hospital, on foot and among a concourse of people. (Temperance Festival.)
- 3.—Man came to Newcastle from Consett, Co. Durham: spots appeared on him in the morning of the same day.
- 4.—Three cases of Smallpox in a large Common Lodging House in New Bridge Street. Infection introduced by a tailor out of work, who came there from Forest Hall, where he appears to have given rise to other cases, one of which died. Infection was afterwards spread from this lodging house to another in Scotswood Road. The tailor had frequented the Bigg Market for betting purposes, and was discovered there with the crusts of the disease upon him. He was afterwards summoned before the Magistrates but did not appear.
- 5.—Italian icecream vendor taken ill of Smallpox shortly after arriving in Newcastle from Montrose, N.B.
- 6.—Woman coming to a large Common Lodging House in Pilgrim Street, after tramping from Hexham with a copious eruption of Smallpox upon her. This person escaped from the lodging house, went to various places, and was ultimately captured in Gateshead.

- 7.—Tramp from Egremont, Cumberland, came to a Common Lodging House in Newcastle, where he developed Smallpox shortly after arrival.
- 8.—Workman on tramp seeking employment, comes to Newcastle and develops the disease.
- 9.—Navy and wife arrive at a Lodging House in Pilgrim Street from the Font Waterworks, Northumberland, where the wife had attended a case of Smallpox. She has Smallpox on reaching Newcastle.
- 10.—Man came to Newcastle by tram from Wallsend, with the disease out upon him.
- 11.—Patient, an undertaker's assistant, confined the corpse of a patient dead of Smallpox in Gateshead.
- 12.—Patient, suspecting he had Smallpox, came to the Health Department.
- 13.—On mother's admission to Gateshead Smallpox Hospital, this child was sent to Newcastle and developed the disease here.
- 14.—Patient, who had worked alongside a case of Smallpox at a factory in Gateshead, refused to be revaccinated when advised, and developed the disease at his home in Newcastle.
- 15.—Patient brought to the Royal Infirmary from Wideopen in an open cart, suffering from Hæmorrhagic Smallpox.
- 16.—Walked from Felling to Newcastle Smallpox Hospital whilst suffering from Smallpox.
- 17.—Presented himself at the surgery of a medical practitioner.
- 18.—On tramp for three weeks. Came from Consett to Newcastle Police Station.
- 19.—Came from Gateshead to Royal Infirmary.
- 20.—A Smallpox contact (not revaccinated), coming from an infected house in Gateshead to a milliner's shop in Newcastle.
- 21.—A draughtsman, coming by train from Tynemouth to the consulting rooms of a medical practitioner in Newcastle, whilst ill of the disease.
- 22.—Came to Newcastle from a Smallpox infected house in Willington Quay and developed the disease here.
- 23.—A Tramp, arriving at a Common Lodging House in Newcastle.

- 24.—A Newcastle undertaker's assistant, infected with Smallpox through coffining a body dead of Smallpox at Forest Hall. This is the second case of an undertaker's assistant in the same firm contracting Smallpox owing to not being re-vaccinated before handling a Smallpox corpse. See case No. 11. The case at Forest Hall appears to have been infected by the tailor specified in example No. 4.
- 25.—Infection contracted at North Shields.
- 26.—Infection traced to a funeral at North Shields.
- 27.—Infection brought from Morpeth. Patient visited Newcastle Dispensary Out-Patient Department.
- 28.—Came to Newcastle from North Shields eleven days before taking ill.
- 29.—Worked at a Gateshead Engine Works beside a man whose wife was ill of Smallpox at Wallsend. Developed the disease at his home in Newcastle.
- 30.—Arrived at a Common Lodging House in Newcastle from Ben Rhydding Waterworks. Left there eight days before taking ill.
- 31.—Relatives from Burradon with the disease visited patient at Walker Gate.
- 32.—Came to Newcastle from Hamburg, and was found next day to have Smallpox.
- 33.—Infection probably contracted from a fellow workman at Felling.
- 34.—Infection probably contracted from a fellow workman at Felling.
- 35.—A domestic servant in Gateshead. Came home to Newcastle ill.
- 36.—Visited an infected house in Gateshead.
- 37.—First case of Smallpox in the family. Came from Felling whilst ailing.
- 38.—Several cases traced to contact with Smallpox in large factories. etc., etc.

CIRCUMSTANCES CONTRIBUTING TO THE CONTINUANCE OF THE EPIDEMIC.

The conditions affecting the development of epidemic Smallpox after its introduction among a population are divisible into two classes; 1st, those of immunity as regards the individual; and 2nd, those favouring the spread of infection among persons who are not protected against it. The former refer entirely to measures of vaccination and revaccination. Had not both of these preventive measures been grossly neglected in Newcastle, the disease would have had no pabulum for its support, and would have been absolutely unable to put on epidemic form. Yet not only have primary and secondary vaccination, in the ordinary acceptation of these terms, been omitted in a great many instances, as the registers of the Smallpox Hospital prove;—more than once the refusal, even in the very face of the disease, to accept the prophylactic, has led to the spread of Smallpox among the members of the families of anti-vaccinators.

With respect to the more positive means by which the spread of infection has been favoured, probably the failure to recognise the disease in its mildest forms is entitled to the first place. A large number of localized outbreaks have been traced back to such mild unsuspected cases, where the persons affected had for weeks been going about in a highly infectious state.

Not only such slight ailments, but occasionally very severe cases escaped recognition. On at least two occasions persons have died from Hæmorrhagic Smallpox mistaken for other disease, and only discovered after the spread of infection among the relatives and friends who attended the funerals.

In one instance the spread of infection was directly due to the ignorance and self-sufficiency of an old nurse who diagnosed a case of Smallpox as one of Chickenpox, and carried infection from the sick room to her lodging in another street.

More than once hawkers were found to have been pursuing their calling whilst there were unreported cases of the disease in their houses.

Smallpox occurred in a number of shop assistants' lodgings on business premises. A barber contracted infection from a customer whom he shaved. Another barber's assistant was found pursuing his vocation with the crusts of recent Smallpox upon him.

Slight cases of three or four weeks duration have been discovered amongst the servants of a hotel, and several cases have occurred among the household or customers of common lodging houses, or the workers in laundries, factories, workshops, water-works, mines, etc.

A large number of patients suffering from Smallpox have gone to the out-patient departments of medical and other public institutions for advice. The number of such persons so presenting themselves was as follows, viz. :—

Hospital for Diseases of the Chest	...	...	1
Newcastle Dispensary	...	...	9
Royal Infirmary	...	...	13
Health Department	...	...	8
Consulting Rooms of Medical Practitioners	...	...	9

That navvies in search of work and tramps have been the means of spreading Smallpox throughout the length and breadth of the land is common knowledge. This means of perpetuating the epidemic has operated extensively in Newcastle as elsewhere.

In some instances spread of infection was due to delay in notification of cases, or failure to furnish a complete list of contacts. The case of the man who frequented the betting ring in the Bigg Market whilst covered with the eruption of Smallpox has been already referred to.

The foregoing are merely illustrations which have come to light of the many channels by which the disease has been passed about from person to person and thus kept in active epidemic form.

PREVENTIVE MEASURES.

The measures for combatting the disease have been as follows: On the receipt of notification of a case of Smallpox, or information

of any case suspected to be such, the patient was promptly visited by the Medical Officer of Health for the purpose of verification. Every case of Smallpox (with certain exceptions already mentioned) was without delay removed to Hospital, and the direct contacts with it were taken to the Isolation House. The latter were classified and housed according to social position, and detained in isolation for at least thirteen days, or longer if considered necessary. The bedding and clothing were removed to the Disinfecting Station, and the house was thoroughly fumigated with sulphurous acid gas. In the majority of cases the contacts were revaccinated before, but occasionally not until after, their removal to isolation. Special assistants were engaged to watch daily the indirect contacts for seventeen days, and to report any sign of ailment in them. The staffs of the Health Department and Hospitals were strengthened as required. Every officer engaged in Smallpox work wore special clothing whilst on duty.

In many localities house-to-house visitation was made for the purpose of detecting cases of the disease. Revaccination in infected streets and houses was urged verbally and by the distribution of leaflets. Information of every case of the disease was forwarded to the Vaccination Officers with the same object. With the authority of the Sanitary Committee, private medical practitioners were remunerated for revaccinations done by them at the request of the Medical Officer of Health. The Committee also sanctioned the payment of public vaccinators for the revaccination of children under ten years of age. Employers whose workmen or servants contracted the disease or had it in their households, were duly notified and cautioned as to the preventive measures advisable, including the revaccination of their staffs. Constant intercommunication was maintained between the Medical Officer of Health of the City with his confrères in other districts, as to matters of mutual interest in relation to the epidemic. Notices were forwarded daily to schools and other public institutions, etc., as to the occurrence of cases of Smallpox in connection therewith.

The Medical Officer of Health takes this opportunity to acknowledge gratefully the valuable and ready help he has invariably received from the medical profession, including the Public Vaccinators, and other officers of public institutions; as also from the

employers of labour, school principals, and many others, without whose aid the performance of his duties would have been well nigh impossible.

NOTIFICATION OF CHICKENPOX.

Chickenpox was made notifiable on 1st April, 1903, at first compulsorily for a period of six months, and afterwards voluntarily until the close of the Smallpox epidemic. The number of notifications of cases of Chickenpox from first to last was 1,457. Of these 24 were found to be suffering from Smallpox.

PROSECUTIONS.

Four persons were prosecuted for failure to notify the occurrence of Smallpox in their respective households. One of these cases was dismissed. In the remaining three, the defendants were fined respectively £2 and costs, £1 and costs, and 2s. 6d.

Three persons were summoned before the magistrates for exposing themselves whilst in an infectious condition. One of these cases was dismissed. The others were fined £7 and costs and £2 and costs respectively.

Approximate cost of the Smallpox Epidemic from its commencement on 18th March, 1903, to and including its termination on 14th September, 1905.*

		TOTAL.
1. Cost of nursing and treatment of Smallpox patients, and cost of hospital accommodation erected, hired, or otherwise provided in consequence of the occurrence of cases during the above period.		
(a) Cost of nursing and treatment of patients.	£ 2,393	£
(b) Cost of hospital accommodation erected ...	4,164	6,557
2. Cost of disinfection—including expense of providing for the disinfection of articles exposed to infection; cost of temporary shelter or house accommodation, with or without attendants, for families compelled to leave their dwellings during disinfection; cost of disinfecting dwellings, bedding, clothing, etc.; and any sums paid by the Council by way of compensation for damage done to bedding, clothing, etc., in the process of disinfection	357	357
NOTE:—No special expense has been incurred for disinfecting apparatus, this having been previously provided. The cost of temporary shelter is included under heading No. 1 (b)		
3. Cost of tracing and of supervising the movements of persons who had been in contact with persons suffering, or supposed to have been suffering, from Smallpox, specifying separately any expenditure that may have been incurred in providing such persons with lodging or maintenance, or any payment made to them in lieu of being so provided.		
(a) Cost of supervising "contacts"	194	
(b) Cost of providing "contacts" with lodging and maintenance in Isolation House erected by Council	2,603	2,797
4. Cost of Vaccination, so far as defrayed by Authority of the Council	303	303

* Summarised from a return made to the Local Government Board.

APPROXIMATE COST OF SMALLPOX EPIDEMIC.—*Continued.*

		TOTAL.
5. Cost of additional ambulance carriages provided in consequence of the occurrence of Smallpox, and of the necessary drivers and attendants ...	£ 370	£ 370
NOTE:—It has not been necessary to provide additional ambulances. The amount here shewn is for repairs on account of extra wear and tear; horse hire and new horses; and temporary ambulance drivers ...		
6. Cost of additional sanitary staff engaged by the Council in consequence of the occurrence of Smallpox, and not included under previous headings ...	.....	.....
7. Other expenditure incurred by the Council in consequence of the occurrence of Smallpox (specifying any items of importance).		
Compensation to "contacts" for loss of work whilst detained in the Isolation House ...	1,584	
Other compensation granted by the Council for loss sustained through Smallpox ...	184	
Other expenditure incurred through the occurrence of Smallpox (including extra printing, postages, and petty cash, notifications of Smallpox and Chickenpox cases, special uniforms, etc., etc.) ...	638	2,406
		£12,790
8. Amount of the sums recovered by the Council on account of expense incurred by them in consequence of the occurrence of Smallpox ...	268	268
NOTE:—This amount was paid by the Walker Sanitary Authority before incorporation for the maintenance of patients and "contacts" admitted from their district to the Newcastle Smallpox and Isolation Hospitals in accordance with a special arrangement with the City Council.		

HEALTH OF THE OFFICIALS.

During the Smallpox epidemic, the staff of officials of the Health Department, all of whom were brought more or less directly into daily contact with infection, has included the following:—

Medical Officer of Health, Assistant Medical Officer of Health, Chief Inspector of Nuisances, Special Inspectors for Infectious Diseases, Assistant Inspectors of Nuisances and Common Lodging Houses, Health Visitors, Clerks, Nurses, Caretakers and Servants at Smallpox and Isolation Hospitals, and Ambulance Drivers (65 persons in all).

Before the beginning of the epidemic, and till its close, the revaccination of each officer of the staff was carefully seen to. No fresh official was allowed to take duty who was not first efficiently protected by successful revaccination within three years previously. The result of these precautions was that not one of the above persons contracted Smallpox.

SERVICES OF THE STAFF.

In conclusion, acknowledgment is due to the different members of the staff of the Health Department and Hospitals for their valuable services during a long and trying epidemic. For two years and a half these officials, one and all, have worked late and early with energy, intelligence, patience, devotion, and self-sacrifice beyond praise.

In the performance of his own duties in connection with the epidemic, the Medical Officer of Health, though working against serious odds through the lamentable deficiency of legal power to secure the protection of the public by efficient vaccination and revaccination, and the suppression of the vagrant as a bearer of infection, has at all times had the compensation afforded by the invariably cordial support and sympathy of the Sanitary Committee, and the ready acquiescence of those whose liberty or comfort was interfered with by the emergencies of the times, in the measures it was his duty to carry out for the public safety.

HENRY E. ARMSTRONG,

Medical Officer of Health.

*Health Department,
Town Hall,
Newcastle-upon-Tyne,
November, 1905.*

APPENDIX.

CLASSIFICATION OF CASES
IN THE
NEWCASTLE
SMALLPOX HOSPITAL,
IN RELATION TO THEIR
VACCINATION OR OTHERWISE.

ARRANGED AND PREPARED FROM THE HOSPITAL REGISTERS,

BY

J. COOTE HIBBERT, M.D. (LOND.), D.P.H.

ASSISTANT MEDICAL OFFICER OF HEALTH.

TABLE I.

CASES PRESENTING NO VACCINATION CICATRIX.

AGE PERIOD.	A. —STATED TO HAVE BEEN VACCINATED.					
	NOT FATAL.			FATAL.		
	Discrete.	Semi-Confluent.	Confluent.	Discrete.	Semi-Confluent.	Confluent.
0— 1	...	...	...	...	...	...
1— 5	...	...	...	...	...	...
5—15	2	...	...	...	...	...
15—30	...	2	...	...	...	...
30 and up-wards	5	3	...	...	...	4
	7	5	...	...	...	4

				Not Fatal.		Fatal.
Discrete ...	...	...	...	7	...	0
Semi-Confluent ...	...	...	...	5	...	0
Confluent ...	...	...	...	0	...	4
				12	...	4

Total, 16. Mortality, 25%.

AGE PERIOD.	B. —NOT STATED TO HAVE BEEN VACCINATED.					
	NOT FATAL.			FATAL.		
	Discrete.	Semi-Confluent.	Confluent.	Discrete.	Semi-Confluent.	Confluent.
0— 1	...	...	...	...	...	...
1— 5	...	...	...	...	...	1
5—15	...	...	...	...	...	...
15—30	...	...	...	...	...	...
30 and up-wards	..	...	...	...	1	...
	...	...	...	...	1	1

				Not Fatal.		Fatal.
Discrete ...	...	...	...	0	...	0
Semi-Confluent ...	...	...	...	0	...	1
Confluent ...	...	...	...	0	...	1
				0	...	2

TABLE 1.—Continued.

AGE PERIOD.	C. —STATED TO BE UNVACCINATED.						
	NOT FATAL.			FATAL.			
	Discrete.	Semi-Confluent.	Confluent.	Discrete.	Semi-Confluent.	Confluent.	Hæmorrhagic.
0—1	2	3	2	...	...	...	...
1—5	8	8	1	...	...	...	...
5—15	23	12	4	...	...	1	...
15—30	10	10	8	...	...	2	1
30 and upwards	3	2	1	...	...	1	1
	46	35	16	...	...	4	2

				Not Fatal.	Fatal.
Discrete ...	...	...	...	46	0
Semi-Confluent ...	...	...	...	35	0
Confluent ...	...	...	...	16	4
Hæmorrhagic ...	...	...	...	0	2
				97	6

Total, 103. Mortality, 5·8%.

AGE PERIOD.	D. —VACCINATION STATED TO HAVE BEEN PERFORMED, BUT NEVER SUCCESSFULLY.					
	NOT FATAL.			FATAL.		
	Discrete.	Semi-Confluent.	Confluent.	Discrete.	Semi-Confluent.	Confluent.
0—1	...	...	...	...	...	...
1—5	1	...	...	...	...	...
5—15	5	...	1	...	...	...
15—30	6	...	1	...	...	...
30 and upwards	1	...	...	...	...	2
	13	...	2	...	...	2

				Not Fatal.	Fatal.
Discrete ...	...	...	...	13	0
Semi-Confluent ...	...	...	...	0	0
Confluent ...	...	...	...	2	2
				15	2

Total, 17. Mortality, 11·7%.

SUMMARY.

				Not Fatal.	Fatal.
Discrete ...	...	...	...	66	0
Semi-Confluent ...	...	...	...	40	1
Confluent ...	...	...	...	18	11
Hæmorrhagic ...	...	...	...	0	2
				124	14

TOTAL, 138. MORTALITY, 10·1%.

TABLE II.

VACCINATED CASES.

Presenting one or more Cicatrices of Primary Vaccination.

AGE PERIOD.	ONE MARK.						
	NOT FATAL.			FATAL.			
	Discrete.	Semi-Confluent.	Confluent.	Discrete.	Semi-Confluent.	Confluent.	Hæmorrhagic.
0—1	...	...	...	...	...	...	...
1—5	...	...	...	...	...	...	...
5—15	4	1	...	...	...	...	...
15—30	35	5	3	...	...	1	...
30 and upwards	51	9	2	...	...	1	3
	90	15	5	...	...	2	3

	Not Fatal.			Fatal.		
Discrete	...	...	...	90	...	0
Semi-Confluent	...	...	...	15	...	0
Confluent	...	...	...	5	...	2
Hæmorrhagic	...	...	...	0	...	3
				110	...	5

Total, 115. Mortality, 4·3 %.

AGE PERIOD.	TWO MARKS.					
	NOT FATAL.			FATAL.		
	Discrete.	Semi-Confluent.	Confluent.	Discrete.	Semi-Confluent.	Confluent.
0—1	...	...	...	...	...	...
1—5	2	1	...	...	...	...
5—15	4	...	...	...	...	...
15—30	67	7	2	...	...	...
30 and upwards	58	11	2	...	...	2
	131	19	4	...	...	2

	Not Fatal.			Fatal.		
Discrete	...	...	...	131	...	0
Semi-Confluent	...	...	...	19	...	0
Confluent	...	...	...	4	...	2
				154	...	2

Total, 156. Mortality, 1·2 %.

TABLE II.—Continued.

AGE PERIOD.	THREE MARKS.						
	NOT FATAL.			FATAL.			
	Discrete.	Semi-Confluent.	Confluent.	Discrete.	Semi-Confluent.	Confluent.	Hæmorrhagic.
0—1	...	...	...	...	...	...	...
1—5	...	...	...	...	...	...	...
5—15	8	...	...	...	...	...	...
15—30	36	4	...	...	...	1	...
30 and upwards	28	4	2	...	...	1	1
	72	8	2	...	...	2	1

					Not Fatal.		Fatal.
Discrete	...	...	...	...	72	...	0
Semi-Confluent	...	...	...	...	8	...	0
Confluent	...	...	...	...	2	...	2
Hæmorrhagic	...	...	...	...	0	...	1
					82	...	3

Total, 85. Mortality, 3·5 %.

AGE PERIOD.	FOUR (OR MORE) MARKS.						
	NOT FATAL.			FATAL.			
	Discrete.	Semi-Confluent.	Confluent.	Discrete.	Semi-Confluent.	Confluent.	Hæmorrhagic.
0—1	...	...	...	...	...	...	...
1—5	1	...	...	...	...	...	...
5—15	18	...	...	...	...	...	...
15—30	60	3	...	...	1	1	1
30 and upwards	29	3	3	...	...	...	1
	108	6	3	...	1	1	2

					Not Fatal.		Fatal.
Discrete	...	...	...	...	108	...	0
Semi-Confluent	...	...	...	...	6	...	1
Confluent	...	...	...	...	3	...	1
Hæmorrhagic	...	...	...	...	0	...	2
					117	...	4

TOTAL, 121. MORTALITY, 3·3 %.

SUMMARY.				Not Fatal.		Fatal.
Discrete	...	...	...	401	...	0
Semi-Confluent	...	...	...	48	...	1
Confluent	...	...	...	14	...	7
Hæmorrhagic	...	...	...	0	...	6
				463	...	14

TOTAL, 477. MORTALITY, 2·9 %.

TABLE III.
DEATHS.

AGE PERIOD.	CASES PRESENTING NO VACCINATION CICATRIX.				VACCINATED CASES.			
	A. Stated to have been vaccinated	B. Not stated to have been vaccinated.	C. Stated to be unvaccinated.	D. Vaccination stated to have been performed, but never successfully.	One Mark.	Two Marks.	Three Marks.	Four or more Marks.
0—1	...	...	...	...	...	...	...	...
1—5	...	1	...	...	...	...	...	...
5—15	...	...	1	...	...	...	...	...
15—30	...	...	3	...	1	...	1	3
			(1 Hæmorrhagic)					(1 Hæmorrhagic)
30 and up- wards	4	1	2	2	4 (3 Hæmorrhagic)	2	2 (1 Hæmorrhagic)	1 (Hæmorrhagic)

	Deaths.	Total Cases.	Mortality.
1. Cases presenting no vaccination cicatrix	14	138	10·4 %
2. Vaccinated cases	14	477	2·9 %
3. State as to Vaccination doubtful	0	8	nil.
	28	623	4·5 %

TABLE IV.
REVACCINATION.

Cases stated to have been successfully revaccinated (excluding revaccination after infection with Smallpox).

AGE PERIOD.	DISCRETE.				SEMI-CONFLUENT.				CONFLUENT.			
	State as to primary Vaccination.				State as to primary Vaccination.				State as to primary Vaccination.			
	One Mark.	Two Marks.	Three Marks.	Four or more Marks.	One Mark.	Two Marks.	Three Marks.	Four or more Marks.	One Mark.	Two Marks.	Three Marks.	Four or more Marks.
0—1	...	...	...	...	...	...	...	...	...	...	...	...
1—5	...	...	...	...	...	...	...	...	...	...	...	...
5—15	...	...	...	...	...	...	...	...	...	...	...	...
15—30	...	...	...	...	...	...	...	...	...	...	...	...
30 and upwards	3	2	...	...	...	...	...	...	...	...	...	1
	3	2	...	...	...	...	...	...	...	...	...	1

Discrete ... 5
Semi-Confluent ... 0
Confluent ... 1
— 6

Mortality nil.

TABLE VI.

CONCURRENT SMALLPOX AND VACCINATION.

Cases presenting no Vaccination Marks excepting those of Vaccination successfully performed after infection with Smallpox.

AGE PERIOD.	A. Stated to have been vaccinated.		B. Not stated to have been vaccinated.		C. Stated to be unvaccinated.		D. Vaccination stated to have been performed but never successfully.	
	Discrete.	Semi-Confluent.	Discrete.	Semi-Confluent.	Discrete.	Semi-Confluent.	Discrete.	Semi-Confluent.
0—1	...	...	...	...	1	1	...	1
1—5	...	...	...	...	1	2	...	...
5—15	...	...	...	...	6	1	1	...
15—30	...	...	...	...	5	...	2	...
30 & upwards	...	...	...	...	2	...	...	...
	...	...	...	...	15	4	3	1
Discrete	...	0	Discrete	...	Discrete	...	Discrete	...
Semi-Confluent	0	0	Semi-Confluent	...	Semi-Confluent	...	Semi-Confluent	1
Confluent	1 (fatal)	1 (fatal)	Confluent	...	Confluent	...	Confluent	0
	1	1		1		19		4
Mortality 100 %			Mortality 100 %		Mortality nil.		Mortality nil.	

SUMMARY.

Discrete	...	18
Semi-Confluent	...	5
Confluent	...	2 (both fatal).
		25
Mortality 8 %		

CONCURRENT SMALLPOX AND REVACCINATION.

TABLE VII.

Cases vaccinated in infancy, and successfully revaccinated only after being infected with Smallpox.

AGE PERIOD.	DISCRETE.	SEMI-CONFLUENT.	CONFLUENT.
0— 1	...	...	...
1— 5	...	...	...
5—15	4	...	...
15—30	25	1	1
30 and upwards	28	3	1
	57	4	2

Discrete	...	...	...	...	...	57
Semi-Confluent	...	...	...	...	...	4
Confluent	...	...	...	...	...	2
						63

Mortality, Nil.

PREVIOUS SMALLPOX.

Two adult patients stated that they had previously suffered from the disease. One of these was unvaccinated; the other bore one mark of primary vaccination. Both recovered.

