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CITY AND COUNTY OF NEWCASTLE-UPON-TYNE.

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 1886.



Newcastle-upon-Tyne :
ANDREW REID, PRINTING COURT BUILDINGS, AKENSIDE HILL.

1887.

TO MR. ALD. THOS. WILSON, J.P., CHAIRMAN OF THE SANITARY
COMMITTEE OF THE CORPORATION OF NEWCASTLE-UPON-TYNE.

SIR,

I beg to present herewith my Thirteenth Annual Report, viz., that
for the year 1886.

Compared with the returns of the previous year the statistics of the
present Report shew considerable improvement under several important
heads. Thus, the General and Infantile death-rates are lower, whilst
the birth-rate is increased; the mortality from the chief Zymotic
diseases is four-sevenths what it was in 1885; Chest diseases have been
relatively less fatal; the amount of Infectious disease notified by Medical
Practitioners under the Act is considerably below that of the year before.

I have the honour to be,

Sir,

Your obedient Servant,

HENRY E. ARMSTRONG,

MEDICAL OFFICER OF HEALTH.

*Health Department,
Town Hall,
Newcastle-upon-Tyne,
21st February, 1887.*

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CITY AND COUNTY OF NEWCASTLE-UPON-TYNE.

REPORT, 1886.

(A.)—GENERAL STATISTICS.

DURING the 52 weeks ended 1st January, 1887, 6,103 births and 3,438 deaths have been registered in the City. The births represent a rate of 39·3 and the deaths a rate of 22·2 per 1,000 of a population of 155,117 at all ages, as estimated by the Registrar General to the middle of the year.

Births and Deaths (all causes).

The following is a Table of the recorded rates of mortality for previous years :—

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

A.D.	Rate per 1,000.					
1868	27·1
1869	27·2
1870	25·4
1871	32·2
1872	26·3
1873	30·1
1874	29·2
1875	26·1
1876	22·7
1877	22·3
1878	23·7
1879	23·5
1880	22·3
1881	21·7
1882	23·0
1883	25·4
1884	23·5
1885	26·0
1886	22·2

The number of births and deaths in the different Registration Sub-districts of the City during 1886 and the previous year is subjoined :—

REGISTRATION SUB-DISTRICTS.	BIRTHS.		DEATHS.	
	1885.	1886.	1885.	1886.
Westgate	2,514	2,627	1,619	1,508
St. Andrew's	589	609	388	341
St. Nicholas'	257	285	436	400
All Saints'	951	976	686	508
Byker	1,537	1,606	855	681
City	5,848	6,103	3,984	3,438

Deaths in Public
Institutions.

The deaths in Public Institutions during the year under report are as follow :—

DEATHS IN PUBLIC INSTITUTIONS IN THE DIFFERENT REGISTRATION SUB-DISTRICTS
DURING THE 52 WEEKS ENDED 1ST JANUARY, 1887.

REGISTRATION SUB-DISTRICTS.	INSTITUTION.	DEATHS.
Westgate	{ Workhouse St. Joseph's House... ..	145 17 — 162
St. Andrew's	{ Magdalene Hospital Hospital for Incurables	2 3 — 5
St. Nicholas'	{ Infirmary Fever Hospital Children's do.	212 8 4 — 224
All Saints'	<i>Nil.</i>	...
Byker	<i>Nil.</i>	...
	Total	391

Deaths from
Miasmatic order
of Zymotic
Diseases.

The condition of the different Registration Sub-districts in regard of mortality from the Miasmatic order* of Zymotic diseases during last, as compared with the preceding, year is as follow :—

SUB-DISTRICTS.	Number of Deaths from Miasmatic Diseases.	
	1885.	1886.
Westgate	201	124
St. Andrew's	44	16
St. Nicholas'	58	15
All Saints'	109	27
Byker	177	60
City	589	242

* See Appendix, Table III. In uniformity with the New Classification of causes of death adopted by the Registrar General, Diarrhœal diseases are now excluded from the Miasmatic order of the Zymotic class of diseases.

The most fatal Zymotic diseases have been Diarrhœa, (most prevalent in the third quarter) and Whooping-Cough (most prevalent in the first half of the year).

Bronchitis and
Pneumonia.

DEATHS FROM BRONCHITIS AND PNEUMONIA.

A.D. 1886.	REGISTRATION SUB-DISTRICTS.					CITY.	Number in previous year (1885).
	Westgate (Workhouse)	St. Andrew's.	St. Nicholas' (Infirmary).	All Saints'.	Byker.		
1st Quarter ...	46	23	9	32	19	129	146
2nd „ ...	56	10	5	18	24	113	184
3rd „ ...	19	6	7	18	12	62	120
4th „ ...	61	9	8	25	17	120	128
Year ...	182	48	29	93	72	424	578
Number in previous Year (1885) ...	237	65	40	127	109	578	...

INFANT MORTALITY.

Infant Mortality.

The number of Infants dying before the completion of the first year of life is 951, as compared with 1,007, 949, and 919 respectively, in 1885, 1884, and 1883.

REGISTRATION SUB-DISTRICTS.		No. 1. Deaths of Children under 1 year of age.		No. 2. Rates per cent. of Deaths under 1 year to Births registered.	
		1885.	1886.	1885.	1886.
Westgate ...	...	410	396	16.3	15.0
St. Andrew's ...	...	83	98	14.1	16.0
St. Nicholas' ...	...	57	52	22.2	18.2
All Saints' ...	...	188	152	19.8	15.5
Byker ...	...	269	253	17.5	15.8
City ...	...	1,007	951	17.4	15.6

The following are the most prominent diseases causing the Infant mortality :—

	DEATHS.	
	A.D. 1885.	A.D. 1886.
Whooping-Cough ...	23	52
Diarrhœa, Dysentery ...	68	95
Inflammation of Brain or Membranes ...	14	26
Premature Birth ...	90	89
Convulsions ...	129	117
Bronchitis ...	82	63
Pneumonia ...	48	36
Debility, Atrophy, and Inanition..	217	225
TOTAL ...	671	703

UNCERTIFIED DEATHS.

That is to say, deaths registered without any proper medical certificate having been given or inquest held, have contributed 94 cases to the general mortality, as compared with 113 during the previous year. See Appendix A, Table IX.

Uncertified
Deaths.

MARRIAGES.

During the year ending March 31st, 1886, the number of marriages registered in Newcastle-upon-Tyne* was 1,729, as compared with 1,730 in the previous twelve months, and 1,902 in the year before that.

Marriages.

INFECTIOUS DISEASE INQUIRY.

CASES OF INFECTIOUS DISEASE KNOWN TO THE HEALTH DEPARTMENT.

During the year under report a total of 1,348 cases of Infectious Diseases† have been made known to the Medical Officer of Health by medical practitioners, under the "Newcastle-upon-Tyne Improvement Act, 1882," and otherwise, including the following :—

Notification of
Infectious
Disease.

	CASES KNOWN TO THE HEALTH DEPARTMENT.	
	A.D. 1885.	A.D. 1886.
Small-pox	70	5
Typhus	9	1
Enteric Fever	253	205
Simple Continued Fever	64	44
Scarlet Fever	1,227	1,004
Diphtheria	93	73
Puerperal Fever	11	14
Relapsing Fever ... ..	.....	2
TOTAL	1,727	1,348

The following Tables shew the monthly returns of the diseases above named in the respective Parishes, etc., of the City :—

* Superintendent Registrar's district, which includes the Municipal area and the Townships of Benwell and Fenham.

† A Street List of the cases is given in Appendix A, Table X.

Small-pox in
different
Parishes, etc.,
during
successive
months.

SMALL-POX IN NEWCASTLE-UPON-TYNE.

NUMBER OF CASES KNOWN TO THE HEALTH DEPARTMENT.									
PARISHES OR TOWNSHIPS.									
A.D. 1886.	Elswick.	Westgate.	St. Andrew's.	St. John's.	St. Nicholas'.	All Saints'.	Jesmond.	Byker, including Heaton.	Total.
January
February
March
April	1	...	...	...	...	1
May
June
July
August	1	...	...	...	...	...	1
September ...	2	...	...	...	...	...	...	...	2
October	1	...	...	...	...	...	1
November
December
Total ...	2	...	2	1	...	...	...	...	5

Typhus Fever in
different
Parishes, etc.,
during successive
months.

TYPHUS FEVER IN NEWCASTLE-UPON-TYNE.

CASE KNOWN TO THE HEALTH DEPARTMENT.									
PARISHES OR TOWNSHIPS.									
A.D. 1886.	Elswick.	Westgate.	St. Andrew's.	St. John's.	St. Nicholas'.	All Saints'.	Jesmond.	Byker, including Heaton.	Total.
January	1	...	...	...	...	1
February
March
April
May
June
July
August
September
October
November
December
Total	1	...	...	...	...	1

ENTERIC FEVER IN NEWCASTLE-UPON-TYNE.

NUMBER OF CASES KNOWN TO THE HEALTH DEPARTMENT.									
A. D. 1886.	PARISHES OR TOWNSHIPS.								
	Elswick.	Westgate.	St. Andrew's	St. John's.	St. Nicholas'.	All Saints'.	Jesmond.	Byker, including Heaton.	Total.
January ...	...	...	...	1	...	1	...	3	5
February ...	2	3	5	1	...	4	...	2	17
March ...	1	2	5	1	...	1	...	...	10
April ...	2	3	2	...	...	...	...	...	7
May ...	5	6	1	2	...	3	...	...	17
June ...	1	3	2	1	2	4	...	...	13
July ...	9	3	2	...	...	1	...	2	17
August ...	19	2	...	...	...	1	...	1	23
September ...	11	...	3	...	1	4	3	3	25
October ...	12	5	1	...	...	1	...	6	25
November ...	11	7	2	1	1	3	...	3	28
December ...	9	4	1	...	...	2	...	2	18
Total ...	82	38	24	7	4	25	3	22	205

Enteric Fever in different Parishes, etc., during successive months.

CONTINUED FEVER IN NEWCASTLE-UPON-TYNE.

NUMBER OF CASES KNOWN TO THE HEALTH DEPARTMENT.										
A. D. 1886.	PARISHES OR TOWNSHIPS.									
	Elswick.	Westgate.	St. Andrew's.	St. John's.	St. Nicholas'.	All Saints'.	Jesmond.	Byker, including Heaton.	Total.	
January	1	1	
February	1	1	...	...	...	1	3	
March	1	...	...	3	4	
April	1	...	...	...	...	...	1	
May	1	...	2	...	...	...	...	4	
June	1	...	...	2	...	...	3	
July	1	...	...	...	...	1	2	
August	5	...	...	...	2	...	...	7	
September	6	2	...	...	...	...	...	8	
October	3	...	...	...	...	...	1	4	
November	1	1	...	...	...	...	...	2	
December	2	1	...	1	1	...	...	5	
Total	18	9	3	1	2	4	...	7	44

Continued Fever in different Parishes, etc., during successive months.

Scarlet Fever
in different
Parishes, etc.,
during successive
months.

SCARLET FEVER IN NEWCASTLE-UPON-TYNE.

NUMBER OF CASES KNOWN TO THE HEALTH DEPARTMENT.										
PARISHES OR TOWNSHIPS.										
A. D. 1883.	Elswick.	Westgate.	St. Andrew's.	St. John's.	St. Nicholas'.	All Saints'.	Jesmond.	Byker, including Heaton.	Total.	
January ...	14	14	7	...	1	10	...	12	58	
February ...	17	15	2	...	...	7	1	12	54	
March ...	21	9	3	...	1	4	1	12	51	
April ...	3	9	15	1	1	5	4	8	46	
May ...	1	13	7	...	6	9	1	20	57	
June ...	4	9	14	1	5	8	4	4	49	
July ...	3	19	4	...	1	10	1	6	44	
August ...	15	16	2	...	...	25	2	15	75	
September ...	28	40	10	1	...	23	1	21	124	
October ...	24	40	14	...	...	36	1	40	155	
November ...	47	42	5	...	...	27	5	53	179	
December ...	38	12	5	6	...	19	3	29	112	
Total ...	215	238	88	9	15	183	24	232	1,004	

Diphtheria
in different
Parishes, etc.,
during successive
months

DIPHThERIA IN NEWCASTLE-UPON-TYNE.

NUMBER OF CASES KNOWN TO THE HEALTH DEPARTMENT.										
PARISHES OR TOWNSHIPS.										
A. D. 1886.	Elswick.	Westgate.	St. Andrew's.	St. John's.	St. Nicholas'.	All Saints'.	Jesmond.	Byker, including Heaton.	Total.	
January ...	8	...	...	...	2	1	1	1	13	
February ...	10	...	2	...	...	...	...	...	12	
March ...	2	...	1	2	...	...	1	...	6	
April ...	...	...	...	1	...	3	...	...	4	
May ...	1	...	...	...	...	1	1	...	3	
June ...	...	...	...	...	...	1	...	...	1	
July ...	...	...	...	...	...	2	...	...	2	
August ...	3	...	...	...	...	...	...	2	5	
September ...	1	...	...	...	...	...	...	4	5	
October ...	...	...	...	...	...	1	...	3	4	
November ...	...	1	...	...	...	1	...	5	7	
December ...	1	...	...	...	...	...	...	10	11	
Total ...	26	1	3	3	2	10	3	25	73	

PUERPERAL FEVER IN NEWCASTLE-UPON-TYNE.

NUMBER OF CASES KNOWN TO THE HEALTH DEPARTMENT.									
PARISHES OR TOWNSHIPS.									
A.D. 1886.	Elswick.	Westgate.	St. Andrew's.	St. John's.	St. Nicholas'.	All Saints'.	Jesmond.	Byker, including Heaton.	Total.
January ...	2	...	...	...	...	...	...	1	3
February ...	...	1	...	...	...	...	...	...	1
March ...	...	...	...	...	...	...	...	...	...
April ...	2	...	...	...	...	...	...	...	2
May ...	...	...	...	...	...	...	...	...	...
June ...	...	...	...	...	...	...	...	...	...
July ...	...	...	...	...	...	...	...	...	...
August ...	...	...	...	...	...	...	...	...	...
September ...	1	...	...	...	...	...	...	2	3
October ...	...	2	...	...	...	...	...	...	2
November ...	1	...	...	...	...	...	...	...	1
December ...	...	1	...	...	1	...	...	...	2
Total ...	6	4	...	...	1	...	...	3	14

Puerperal Fever
in different
Parishes, etc.,
during successive
months.

RELAPSING FEVER IN NEWCASTLE-UPON-TYNE.

NUMBER OF CASES KNOWN TO THE HEALTH DEPARTMENT.									
PARISHES OR TOWNSHIPS.									
A.D. 1886.	Elswick.	Westgate.	St. Andrew's.	St. John's.	St. Nicholas'.	All Saints'.	Jesmond.	Byker, including Heaton.	Total.
January
February
March
April
May
June
July
August	1	1
September
October	1	1
November
December
Total	2	2

Relapsing Fever
in different
Parishes, etc.,
during successive
months.

AGES OF CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1886.

DISEASES NOTIFIED.	Under 1 Year.	1 Year and under 2.	2 Years and under 3.	3 Years and under 4.	4 Years and under 5.	5 Years and under 10.	10 Years and under 15.	15 Years and under 20.	20 Years and under 30.	30 Years and under 40.	40 Years and under 60.	60 Years and under 80.	80 Years and upwards.	Age not stated.	TOTAL.
Small-pox ...	...	...	...	...	...	...	1	...	1	...	...	...	...	3	5
Typhus Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Enteric "	...	2	4	5	11	43	40	28	33	17	16	2	...	4	205
Continued "	...	...	3	4	5	11	8	6	3	2	1	1	...	...	44
Scarlet "	29	54	80	109	119	406	116	24	26	12	3	1	...	25	1,004
Diphtheria...	4	6	6	5	5	13	15	3	7	4	1	...	1	3	73
Puerperal Fever ...	...	...	...	...	...	...	...	4	8	2	...	...	...	...	14
Relapsing "	...	...	...	...	...	1	...	...	...	...	1	...	...	...	2
TOTAL ...	33	62	93	123	140	474	180	65	78	37	22	4	1	36	1,348

DEATHS AND DEATH-RATES DURING THE YEAR, AT DIFFERENT ÆTAL-PERIODS.

AGES.	SMALL-POX.		TYPHUS.		ENTERIC FEVER.		CONTINUED FEVER.		SCARLET FEVER.		DIPHTHERIA.		PUERPERAL FEVER.		RELAPSING FEVER.		TOTAL.	
	Deaths.	Percentage of Deaths to Cases Notified.	Deaths.	Percentage of Deaths to Cases Notified.	Deaths.	Percentage of Deaths to Cases Notified.	Deaths.	Percentage of Deaths to Cases Notified.	Deaths.	Percentage of Deaths to Cases Notified.	Deaths.	Percentage of Deaths to Cases Notified.	Deaths.	Percentage of Deaths to Cases Notified.	Deaths.	Percentage of Deaths to Cases Notified.	Deaths.	Percentage of Deaths to Cases Notified.
Under 1 year	9	31.0	4	100.0	...	...	...	...	13	39.4
1 Year and under 2	12	22.2	2	33.3	...	...	...	...	14	22.6
2 Years and under 3	4	5.0	3	50.0	...	...	...	...	7	7.5
3 " " " " " "	1	20.0	...	...	8	7.3	4	80.0	...	...	...	...	13	10.6
4 " " " " " "	1	9.1	...	...	2	1.7	2	40.0	...	...	...	...	5	3.6
5 " " " " " "	5	11.6	...	...	9	2.2	2	15.4	...	...	...	...	16	3.4
10 " " " " " "	1	0.9	...	...	...	...	...	...	1	0.6
15 " " " " " "	5	17.9	...	...	...	...	1	33.3	4	100.0	...	...	10	15.4
20 " " " " " "	7	21.2	...	...	...	...	1	14.3	5	62.5	...	...	13	16.7
30 " " " " " "	8	47.1	...	...	...	...	...	...	2	100.0	...	...	10	27.0
40 " " " " " "	6	37.5	...	...	...	...	...	...	...	...	...	...	6	27.3
60 " " " " " "	1	50.0	...	...	...	...	...	...	...	...	...	...	1	25.0
80 " " " " " "
80 Years and upwards
Ages not stated
TOTALS	34	16.6	...	...	45	4.5	19	26.0	11	78.6	...	...	109	8.1

Deaths and Death-rates at different Ætal-periods.

INFECTIOUS DISEASES INQUIRY.—*Continued.*

SMALL-POX.

Small-pox.

The undermentioned details refer to Small-pox during the year 1886.

Fresh cases—

In 2 households—single cases	...	...	2
„ 2 Public Institutions (see Table, page 23)	...	...	3
Total	...	...	<u>5</u>

Each of the infected houses consisted of 2 rooms.

Neither of the sick-rooms in the 2 houses at the date of inspection were at all isolated from the rest of premises, the neighbours and families having access to the sick-rooms. In 1 case no means were being taken to prevent the spread of infection. In 2 cases removal to Hospital was agreed to and effected, including 1 from the Newcastle Infirmary.

2 occupants of the infected houses were employed as shewn on Table at page 25.

In 1 case the patient is believed to have caught the infection by the visit of her brother (from a neighbouring borough), who had been suffering from Small-pox.

TYPHUS.

The only case returned is that of a Nurse in the Fever Hospital, and was not well-defined. The source of the infection was not ascertained.

ENTERIC FEVER.

Enteric Fever.

The undermentioned details refer to Enteric Fever during the year 1886.

Fresh cases—

In 138 households—single cases	...	...	138
„ 22 „ 2 cases each	...	...	44
„ 4 „ 3 „	...	...	12
„ 1 „ 4 cases	...	...	4
			<u>198</u>
Fresh cases in 4 Public Institutions (see Table, page 23)	...	...	7
Total	...	...	<u>205</u>

In relation to Households, etc.

Of the infected houses—

24, or about 15 per cent., consisted of 1 room each.	
70, „ 42 „ „ 2 rooms „	
28, „ 17 „ „ 3 „ „	
43, „ 26 „ „ 4 „ „ (or more).	

165

Isolation of Sick-rooms.

Of the sick-rooms in the 165 different houses infected, 95 are returned as not at all isolated from the rest of the premises, the family either having direct access to or living in the sick-room. In 90 of the cases no means to prevent infection were being taken. In 36 cases removal to Hospital was agreed to and effected.

189 occupants of the infected houses were employed at shops, etc., or in occupations elsewhere, as shewn on page 25.

The following businesses were carried on on infected premises, whereby infection was liable to be communicated to customers:—

Residents on Infected Premises occupied elsewhere.

Businesses on Infected Premises.

Character of Infected Premises, etc.	No. of		Remarks made at date of inquiry.
	House-holds.	Cases.	
Public-houses and beer-houses	4	5	In 1 case no precaution to prevent spread of infection was being taken, and in 3 cases the family had access to the sick-room.
Refreshment Rooms	3	4	In 1 case there was no isolation, and in 2 cases no precautions were being taken.
Small Shops	3	3	In 2 cases there was no isolation. In 1 case no precautions were being taken; and in 2 cases the families had access to the sick-room.
Saddler's Shop	1	2	In this household the family had access to sick-room.
Washerwomen	2	2	In 1 case there was no isolation, and in both cases the family had access to the sick-room. In 1 case no precautions were being taken.
Lodging-house	1	1	In this case there was no isolation or precaution taken.
News Agent	1	1	
Provision Shops	2	2	
Grocer's Shop	1	1	In this case there was no isolation or precaution taken.
Dairies	2	2	In 1 case the family had access to sick-room, in the other there was no isolation; and in both cases no precautions were being taken at the time of inspection.*

The various households affected were supplied with milk by a large number of dealers, and there is no reason to suppose that any outbreak was attributable to milk. 22 dairies only supplied milk to more than one infected household, viz.:—

In relation to Milk Supply.

2 dairies supplied 7 households affected (each).

4	"	5	"	"	"
1	"	4	"	"	"
2	"	3	"	"	"
13	"	2	"	"	"

In cases where more than one household infected had been supplied by

* In one of these cases the patient was removed to Hospital. In the other the patient was unfit to bear removal, and the milk dealer left the premises temporarily. See also Report of Inspector of Dairies and Cowsheds (page 28).

milk from the same dairy, special inquiries were made from time to time. In no instance was the disease attributed to milk.

All the water supplied to the infected households is reported as being obtained direct from the mains of the Water Company. In 1 case the water was complained of.

Enteric Fever in
the Scotswood
Road district.

In consequence of some prevalence of Enteric Fever in the district round Scotswood Road a special report was made in September, of which the chief points are the following :—

In the area bounded by Westmorland Road, Westmorland Terrace, Forth Banks, and the River Tyne, 37 cases of Enteric Fever were notified in 29 households from 1st July to 25th September. Of these 2 died. The milk and water supplies and other usual media of infection were inquired into, with the result that the probable cause of the spread of the disease was the open privy system. The cases occurred in 17 different streets, containing 1,849 habitations. In these streets there were, among other conveniences, 221 privies, the middens of 196 of which were uncovered. The streets having most cases of fever were those in which the open privy middens were most numerous. In many instances the middens are in confined spaces and close to the windows of living rooms. Infected excreta thrown into them are a source of danger to the surrounding population. There are also in the district in question 33 slaughter-houses, 12 cow-houses, 79 stables, and a tripery, the localities of which were shown on a map submitted with the report. The streets most thickly studded with these houses, for cattle and horses, many of which are very close to human dwellings, showed most disease.

CONTINUED FEVER.

Continued Fever.

The undermentioned details refer to Continued Fever during the year 1886.

Fresh cases—

In 32 households—single cases	...	...	32
„ 4 „ 2 cases each	...	...	8
„ 1 „ 4 „	...	...	4
Total	...	...	<u>44</u>

In relation to
Households, etc.

Of the infected houses—

6, or about 16 per cent., consisted of 1 room each.				
21,	„	57	„	2 rooms „
3,	„	8	„	3 „ „
7,	„	19	„	4 „ „ (or more).
<u>37</u>				

Of the sick-rooms in the 37 different houses infected, 24 are returned as being not at all isolated from the rest of the premises, the family either

having access to, or living in, the sick-room. In 25 of the houses no means to prevent the spread of infection were being taken. In 10 cases removal to Hospital was agreed to and effected.

Isolation of Sick-rooms.

46 occupants of the infected houses were employed at shops, etc., or occupations elsewhere, as shewn at page 25.

Residents on Infected Premises occupied elsewhere.

The following businesses were carried on on infected premises, whereby infection was liable to be communicated to customers :—

Businesses on Infected Premises.

Character of Infected Premises, etc.	No. of		Remarks made at date of inquiry.
	House-holds.	Cases.	
Newspaper and Toy Shop	1	3	No precaution was being taken at time of inquiry to prevent the spread of infection.
Provision Shops ...	2	5	In 1 case the family had access to the sick-room.
Boot and Shoe Shop ...	1	1	
Dairy* ...	1	1	

* See also Report of Dairies' Inspector, page 23.

SCARLET FEVER.

The undermentioned details refer to Scarlet Fever during the year 1886. Scarlet Fever.

Fresh cases—

In 405 households—single cases	...	...	...	405
„ 125 „ 2 cases each	...	...	...	250
„ 1 „ (Caravan) 2 „	...	...	...	2
„ 51 „ 3 „	...	...	...	153
„ 31 „ 4 „	...	...	...	124
„ 7 „ 5 „	...	...	...	35
„ 1 „ 8 cases	...	...	...	8
				<hr/> 977
Fresh cases in 2 Public Institutions (see Table, page 23)				17
Cases in 1886 on premises where cases in 1885 have already been inquired into	...	...	...	10
				<hr/> Total 1,004

Of the infected houses—

71, or about 11 per cent., consisted of 1 room each.	
234, „ 38 „ 2 rooms „	
137, „ 22 „ 3 „ „	
179, „ 29 „ 4 „ (or more).	
<hr/> 621	

In relation to Households, &c.

Of the sick-rooms in the 621 different houses infected no less than 342 are returned as being not at all isolated from the rest of the premises, the family either living in the sick-room or having direct access to it. In 353 of the houses no means to prevent infection were being taken. In 44 cases only was removal to Hospital agreed to and effected.

Isolation of Sick-rooms.

Residents on Infected Premises occupied elsewhere.

Businesses on Infected Premises.

633 occupants of the houses in question were employed at shops, etc., or in occupations elsewhere, as shewn at page 25.

The following businesses were carried on on infected premises, whereby infection was liable to be communicated to customers:—

Character of Infected Premises, etc.	No. of		Remarks made at date of inquiry.
	House-holds.	Cases.	
Dairies*	3	5	In 2 cases no precaution to prevent spread of infection was being taken; in one case there was no isolation, and in the other case the family had access to sick-room.
Green Grocery	1	1	In this case no precaution was being taken.
Public-houses and Beer-houses	5	5	In 1 case the access to the sick-room was through the "Snug" used by the public, and in 1 case the family had access to the sick-room.
Boot and Shoe Makers ...	4	5	In 2 cases no precaution was being taken to prevent the spread of infection, and in 1 case there was no isolation, the family having access to sick-room.
Boot and Shoe Makers and Dressmaking ...	1	1	The family had access to sick-room.
Dressmaking	1	1	No precaution was being taken.
Marine Stores	1	1	No precaution was being taken and family had access.
Tailoring	2	2	In both cases no precaution was being taken, and in one case there was no isolation and the family and workmen had access to the sick-room.
Hairdressing	1	2	No precaution was being taken.
Washerwomen	1	2	No precaution was being taken; there was no isolation, and the family had access to the sick-room.
Provision Shop	1	2	
Stationer's Shop	1	2	
Billiard Saloon	1	1	
Hardware	1	1	
Small Shops (Confectionery, etc.)	2	4	In 1 case there was no isolation.
Lodging-house	1	1	In this case there was no isolation.
Drapery Establishment...	1	1	The persons connected with the establishment reached their dining-room by the stairs leading to the sick-room.

* See also Report of Dairies' Inspector, page 23.

Scarlet Fever in relation to School Attendance.—Of the households infected with Scarlet Fever, 417 contained scholars of one or other of 100 different schools in the City. In four of the largest elementary schools, scholars came from upwards of 20 of such households during the year; the largest number attending any one school being 41 (two instances).

Scarlet Fever in
relation to School
Attendance.

In one school there was infection in the households of its scholars during *every* month of the year. In another, such infection occurred during 11 months, and in three others during 9 months.

On 13 different occasions from 5 to 12 families of the scholars of individual schools were infected during the same months, including two schools so affected three times, and one school twice during the year.

DIPHTHERIA.

The undermentioned details refer to Diphtheria during the year 1886.

Diphtheria.

Fresh cases—

In 37 households—single cases	...	...	...	37
„ 5 „ 2 cases each	...	...	...	10
„ 1 „ 3 „	...	...	...	3
„ 1 „ 4 „	...	...	...	4
„ 1 „ 7 „	...	...	...	7
„ 1 „ 8 „	...	...	...	8
				— 69
Cases in 2 Public Institutions. see Table, page 23	...	For particulars	...	4
				—
	Total	...	...	<u>73</u>

Of the infected houses—

In relation to
Households, etc.

4, or about	9 per cent.,	consisted of 1 room each.
12, „ 26 „	„	2 rooms „
12, „ 26 „	„	3 „ „
18, „ 39 „	„	4 „ (or more).
—		
46		
—		

Of the sick-rooms in the 46 different houses infected, no less than 26 are returned as being not at all isolated from the rest of the premises, the family either having access to, or living in, the sick-room. In 26 of the houses no means to prevent infection were being taken. In 2 cases removal to Hospital was agreed to and effected.

Isolation of
Sick-room.

46 occupants of the houses in question were employed at shops, etc., or in occupations elsewhere, as shewn on Table at page 25.

Residents on In-
fected Premises
occupied else-
where.

Businesses on Infected Premises.

The following businesses were carried on on infected premises, whereby infection was liable to be communicated to customers :—

Character of Infected Premises, etc.	No. of		REMARKS.
	House-holds.	Cases.	
Confectioner's Shop ...	1	2	
Painter & Paperhanger	1	2	
Grocery	1	1	

Diphtheria in relation to Milk Supply.

Milk Supply.—The households affected were supplied by a large number of dealers. In one case only was milk supplied to more than one infected household by the same dealer, and upwards of three months intervened between the cases in the (2) households.

PUERPERAL FEVER.

Puerperal Fever.

The undermentioned details refer to Puerperal Fever during the year 1886.

	Cases.
Inquiries were made in 13 households, containing ...	13
Case in Public Institution, see page 23	1
Total	<u>14</u>

Puerperal Fever and Midwifery Practice.

7 of the above cases had been attended by 6 different Midwives,* each of whom was cautioned against continuing her practice until the lapse of a period of two months after the confinement. This injunction is believed to have been attended to. Compensation for loss of practice was granted by the Sanitary Committee.

RELAPSING FEVER.

Relapsing Fever.

The undermentioned details refer to Relapsing Fever during the year 1886.

Inquiries were made in 2 households containing 2 cases.

Of the infected houses 1 consisted of 2 rooms and 1 of 3 rooms.

Relapsing Fever has not previously been notified under the Act. The only previously recorded occurrence of this disease in Newcastle was in the year 1872, when an outbreak of 21 cases came under the observation of the writer, all of which were admitted to the Newcastle Fever Hospital.

* One Midwife attended two of these cases, an interval of several months occurring between the two.

INFECTIOUS CASES NOTIFIED IN PUBLIC INSTITUTIONS IN NEWCASTLE.

Infectious
Diseases in Public
Institutions.

Institution.	Small-pox.	Typhus Fever.	Enteric Fever.	Scarlet Fever.	Diphtheria.	Puerperal Fever.	TOTAL.
Infirmary	1	...	1	3	2	...	7
Barracks ... ..	...	...	1	14	2	...	17
Fever Hospital, Bath Lane ... ..	...	1	...	...	...	...	1
Workhouse	2	...	4	...	...	1	7
Deaf and Dumb Institution ... ..	...	...	1	...	...	...	1
Total	3	1.	7	17	4	1	33

MEASLES.

This disease—which of late years has assumed a severity of type perhaps previously unparalleled—is not notifiable by medical practitioners under the Act. Seeing the often avoidable danger to which healthy children in schools are exposed, from being brought into close contact with others who, though apparently well, are incubating the disease, and whose breath is highly infectious, it is desirable that Measles should be included among the “infectious diseases” as defined by “The Newcastle-upon-Tyne Improvement Act of 1882.”

Measles.

Isolation of the Infected Sick and other Preventive Measures, and the extent to which they are adopted on Infected Premises.—This inquiry has been continued last year with the following results:—

Isolation and
other Preventive
Measures in
Infected
Households.

SUMMARY.—CHARACTER OF INFECTED HOUSES.

DISEASE.	DWELLINGS INVADED BY DISEASE.				
	HOUSEHOLDS.			Houses of more than 3 rooms.	Total House- holds.
	1 room each.	2 rooms each.	3 rooms each.		
Small-pox ... ..	...	2	...	...	2
Typhus ... ..	...	...	...	...	...
Enteric Fever	24	70	28	43	165
Continued Fever... ..	6	21	3	7	37
Scarlet Fever	71	234	137	179	621
Diphtheria	4	12	12	18	46
Relapsing Fever ... ..	...	1	1	...	2
Totals	105	340	181	247	873
Rate per cent. to Total ..	12%	39%	21%	28%	...

During the past year the "pair-room" tenement has been relatively more often invaded by infectious disease than other dwellings, 35 per cent. of the infected households consisting of this class, as compared with 32 per cent. during 1885.

Character of the Isolation and other Preventive Measures adopted.

Character of the Isolation and other Preventive Measures adopted.—The following Table shews the character of the isolation observed, and the extent to which other preventive measures were used, by those on whose households infectious sickness was reported during the year :—

SUMMARY—ISOLATION OF SICK-ROOMS AND PRECAUTIONS TAKEN, ETC.

DISEASE.	Total Households Infected	ISOLATION.				No precautions being taken at time of inspection	Removal to Hospital agreed to. (Number of Patients.)	Percentage of cases isolated in Hospital to total notified.
		Fair.	Moderate.	Imperfect.	None.			
Small-pox ...	2	...	...	...	2	1	2	Per cent. 40
Typhus ...	...	...	...	...	...	...	1	100
Enteric Fever ...	165	1	18	51	95	90	36	18
Continued Fever ...	37	...	5	8	24	25	10	23
Scarlet Fever ...	621	3	64	212	342	353	44	4
Diphtheria ...	46	3	4	13	26	26	2	3
Relapsing Fever ...	2	...	...	...	2	2	...	...
Total (1886) ...	873	7	91	284	491	497	95	...
Percentage (1886)	...	0·8%	10%	33%	56%	57%	...	7·1%
Corresponding return for the year 1885 :—								
Total (1885) ...	1,130	18	148	496	459	543	112	...
Percentage (1885)	...	1·6%	13%	43%	41%	48%	...	6·5%

SUMMARY OF OCCUPATIONS IN WHICH PERSONS RESIDING ON INFECTED PREMISES
WERE ENGAGED ELSEWHERE AT THE TIME OF INQUIRY.

Summary of
Occupations
followed else-
where by Resi-
dents on Infected
Premises.

Occupations (after the Classification in the Census Tables).	Small-pox.	Enteric Fever.	Simple Continued Fever.	Scarlet Fever.	Diphtheria	Relapsing Fever.	TOTALS.
Government of the Country (Postal Officials, Police, etc.)	7	...	25	1	...	33
Defence of the Country (Army)	6	...	...	6
Professional Classes, viz:—							
Schoolmasters and Teachers	1	1	4	...	...	6
Medical, etc.	3	...	...	3
Others	5	...	7	2	...	14
Domestic Service	7	1	11	3	...	22
Commercial Occupations (Travel- lers, Clerks, Agents, etc.) ...	1	3	1	31	3	...	39
Conveyers of Men, Goods, or Mes- sages ...	1	11	3	70	5	1	91
Occupations about Animals	4	...	...	4
Workers and Dealers in Books, Prints, etc.	1	14	...	...	15
Workers and Dealers in Machines and Implements	46	12	113	4	...	175
Workers and Dealers in Houses, Furniture, and Decorations	16	2	47	3	...	68
Workers and Dealers in Carriages and Harness	1	...	2	...	...	3
Persons employed in Shipyards	2	...	4	...	...	6
Workers and Dealers in Chemicals or Compounds	1	...	1	...	...	2
Workers and Dealers in Tobacco...	5	...	...	5
Workers and Dealers in Food and Lodging (Publicans, Butchers, Provision Dealers, etc.)	23	3	42	4	...	72
Workers and Dealers in Textile Fabrics (Drapers, etc.)	4	...	10	2	...	16
Workers and Dealers in Dress	11	2	32	...	...	45
Do. in Animal Substances (not Food, etc.)	3	1	7	...	...	11
Workers and Dealers in Vegetable Substances (not Food)	2	1	7	1	...	11
Workers and Dealers in Mineral Sub- stances (Miners, Blacksmiths, etc.)	9	6	40	...	1	56
Workers and Dealers in Unspecified Commodities, viz:—							
Lamplighters	1	...	2	...	...	3
Billposter	1	...	...	1
Labourers	11	6	35	5	...	57
Pawnbrokers	2	...	...	2
Enginemens and Firemen (un- defined)	2	...	...	2
Hawkers	6	1	2	1	...	10
Contractor	1	...	...	1
Errand Girl	1	...	...	1
Gardener	1	...	...	1
Manager	1	...	...	1
Hucksters	2	...	...	2
Workers and Dealers in Refuse Matters (Sweeps & Rag Dealers)	2	...	...	2
Occupation not stated	19	5	95	12	...	131
Bath Assistant	1	...	...	1
Totals ...	2	189	46	633	46	2	918
Totals of Inquiries Made during 1886 at Infected Households ...	2	165	37	621	46	2	873

FEVER AND SMALL-POX HOSPITALS.

Work at the
Hospitals for In-
fectious Diseases.

108 patients have been admitted to the Fever and Small-pox Hospitals—

2 suffering from Small-pox.

1	"	Typhus.
36	"	Enteric Fever.
44	"	Scarlet Fever.
10	"	Simple Continued Fever (Febricula).
2	"	Diphtheria.
9	"	Measles.
4	"	Other diseases.

For other details as to the above, see Appendix A, Table XI.

The Small-pox Hospital has been open on two occasions, viz., from April 1st to 16th, and from August 22nd to September 8th. The Small-pox Convalescent Home at Byker has not been occupied by patients during the year.

Expense of Maintenance.

Expense of
Maintenance of
Patients.

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

	Cases.
To the Sanitary Authority	96
„ private guarantors	10
„ the governing bodies of Public Institutions	2
Total	108

BURIAL OF CORPSES.

Burial of
Corpses under
Local Act.

Under the 47th Section of the "Newcastle-upon-Tyne Improvement Act, 1882," Orders of Justice have been obtained during the past year as follow :—

For Burial of Corpses from rooms in which persons live or sleep	17
For Burial of Infected Corpses from Fever or Small-pox Hospital	2
For Removal of Corpses to Mortuary and subsequent Burial	0
Total	19

Summary of
Reports, etc.,
made during
the year.

SUMMARY OF SHORT REPORTS MADE DURING THE YEAR 1886.

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

(1.)—*Zymotic Disease*—

Notifications ; hospital admissions ; deaths.

Enteric Fever in Scotswood Road district.

Cases illustrating liability to spread of infection.

Dairies and infectious disease.

Midwifery practice and Puerperal Fever.

Compensation granted to midwives for loss of practice ; infected confectionery, provisions, etc., destroyed.

Infectious disease in connection with the Barracks and with Byker Board School.

The treatment of surgical patients suffering from fever, etc., and removed to Hospital from the Newcastle Infirmary.

Infantile Diarrhoea and bottle-feeding.

(2.)—*Localities*—

Quality Row (deposits, etc.)

St. James' Terrace (drainage, etc.)

Wright's Yard, Percy Street (drainage, paving, deposits, etc.)

Dispensary Lane (slaughter-houses).

Clayton Park Square district (general sanitary condition).

Dame Allan's School.

All Saints' Cemetery.

City Flour Mills (smoke nuisance).

(3.)—*Dwellings*—

Tenement Regulations.

Overcrowding, houses unfit for habitation, etc.

(4.)—*Trades*—

Dairy Regulations (Bye-Laws for) ; cow-houses occupied without sanction of the Sanitary Authority ; triperies proposed.

(5.)—*Sewage Deodorization, etc., etc.*

GENERAL WORK OF THE HEALTH DEPARTMENT.

(a.)—*Nuisance Removal*.—4,125 cases of nuisance have been attended to by the Inspectors of the Department during the year. (For details, see Appendix A, Table XVI.)

(b.)—*Bakehouses*.—Chief-Inspector Clarke reports that these continue to be kept under supervision, and that many improvements have taken place.

(c.)—*Triperies*.—Mr. Clarke further reports that two Triperies have been discontinued, leaving 10 in operation in the City. These are regularly inspected and are reported clean.

General Work
of the Health
Department.

Nuisance
Removal.

Bakehouses.

Triperies.

Disease Inquiry

(d.)—*Infectious Disease Inquiry and Disinfection*.—1,348 cases of infectious disease have been inquired into by the Special Inspectors, and the houses or rooms connected therewith disinfected, as compared with 1,727 during the year before. The bedding and other infected articles have been removed to the Disinfecting Station, and after purification they have been returned to the owners. (For list, see Appendix A, Tables XIV. and XV.) In addition to the above, 52 inquiries have been made, also disinfection done at houses or rooms where deaths have occurred from Measles or Diarrhœa.

Compensation granted on account of Infection.

Compensation.

In eight cases compensation amounting in the aggregate to £13 11s. 10d. has been allowed by the Sanitary Committee to the occupiers of infected houses and others, viz.:—

For Public Laundry or other work suspended	...	...	3 cases.
For Provisions, Fruit, etc., destroyed	...	...	5 „
			<hr/> 8
			<hr/>

Food Inspection.

(e.)—*Food Inspection*.—The report of Inspector Hedley on suspected and unwholesome *Butchers' Meat* or other flesh examined during the year is given in Appendix A, Table XII.

Dairies, etc

(f.)—*Inspection of Dairies, Cowsheds, and Milkshops during the year 1886*.—Inspector Hedley reports that during the year 1,704 inspections of cowsheds and milkshops have been made, and several evils have been remedied on verbal notice.

The local regulations now in force having been found insufficient for the proper control and management of dairies, cowsheds, etc., new regulations are at present under consideration.

Plans have been submitted to and passed by the Town Improvement Committee for building three new cowsheds. Four applications have been made to begin to occupy old buildings as cowsheds. After being inspected and reported on, the Sanitary Committee granted three of the applications and declined one.

Six outbreaks of infectious disease have been reported in the families of dairymen, viz., three of Scarlet Fever, two of Enteric Fever, and one of Continued Fever. On report of the cases they were at once attended to, and instructions given to prevent any communication between the infected persons or premises and the milk supply. No spread of infection by means of milk is known to have occurred from any of the cases.

(g.)—*Slaughter Houses*.—Inspector Hedley reports that the inspection of slaughter-houses has been attended to as closely as circumstances will permit, but owing to the places being situated so far apart, as close a supervision as is desirable of their cleanliness, and the class of meat prepared therein, cannot be carried out at all times. During the year the license to slaughter animals therein was withheld from three places by order of the Sanitary Committee, on account of their insanitary condition and the surroundings.

Slaughter
Houses.

Five applications have been made to the Sanitary Committee for licenses to begin to use premises as slaughter-houses. After being reported on, the Committee granted three of the applications and refused the others.

At Stepney, four slaughter-houses have been made into two, thus making 131 licensed places at the present time; of that number 97 are licensed for a term of twelve months, and 34 (on account of special sanitary defects) for six months only.

At Dispensary Lane, the slaughter-houses belonging to the Incorporated Company of Butchers, having been improved to the satisfaction of the Sanitary Committee, have been replaced on the twelve months' license list.

(h.)—*No Well Waters* have been drawn for analysis during the year.

Well Water.

HOUSES BUILT DURING THE YEAR 1886.

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

House-building
in 1886.

Newcastle-upon-Tyne.	Houses Self-contained.	Houses of Two Flats each.
Elswick Township	101	177
Westgate Township	1	16
Byker Township	44	195
Jesmond Township	21	—
Heaton Township	69	52
St. Andrew's Parish	22	8
St. John's Parish	—	—
St. Nicholas' Parish	—	—
All Saints' Parish	—	2
	258	450
		(for 900 families.)

New accommodation has thus been provided for 1,158 families, or, at the rate of 5 persons to a family, 5,790 persons, as compared with accommodation estimated for 5,155 persons provided during 1885.

New Accommo-
dation.

Plans submitted to the Town Improvement Committee* for 837 new

Plans Examined.

* Several of these were rejected by the Committee, and others, for various reasons, have not been carried out.

dwellings (519 self-contained houses and 636 flats), 74 additions, and 42 alterations, have been examined by the Medical Officer of Health.

Conveniences.

The conveniences proposed for these dwellings were as under :—

CONVENIENCES.

WATER-CLOSETS.		ASH-CLOSETS.	PRIVIES.
Indoor.	Outdoor.		
189	629	270	131

Defects on Plans
for proposed
Houses.

The following is a summary of the principal defects observed on the plans as first submitted :—

Small Bedrooms.

865 *small bedrooms* were noted. Twenty of the smallest of these yield an average capacity of less than 560 cubic feet. Of twenty of such bedrooms, the plans for which were examined on the same day, the average capacity was 783·9 cubic feet, and the average floor space 81·8 square feet.

Other Defects
Plans.

- 46 other rooms (kitchens, etc.,) were notified as “small.”
- 521 bedrooms were without fireplace or special means of ventilation.
- 125 water-closets were in an improper position.
- 88 yards were deficient in space.
- 37 stables and 4 cow-houses were objectionably near to dwellings.
- 19 water-closets were shewn in bath-rooms.
- 7 proposed buildings interfered injuriously with light or ventilation of adjoining buildings.
- 7 rooms were deficient in height.
- 3 instances of insufficient “convenience” were noted, etc., etc.

HENRY E. ARMSTRONG,

MEDICAL OFFICER OF HEALTH.

*Health Department, Town Hall,
Newcastle-upon-Tyne,
April, 1887.*

City and County of Newcastle-upon-Tyne, 1886

APPENDIX A.

TABLE I.

POPULATION (ESTIMATED BY THE REGISTRAR GENERAL TO THE MIDDLE OF
THE YEAR)—155,117.

Registration Sub-districts and City.	Different Quarters of the Year.	Births Registered in 52 Weeks, ended 1st January, 1887.					Deaths Registered in 52 Weeks ended 1st January, 1887.		
		Male.		Female.		Total.	Male.	Female.	Total.
		Legiti- mate.	Illegi- timate.	Legiti- mate.	Illegi- timate.				
Westgate ...	1st Quarter.	327	15	336	21	699	197	204	401
	2nd " ...	325	22	289	14	650	199	162	361
	3rd " ...	317	10	306	16	649	187	164	351
	4th " ...	309	6	303	11	629	174	221	395
	Total ...	1,278	53	1,234	62	2,627	757	751	1,508
St. Andrew's	1st Quarter.	82	3	59	5	149	56	46	102
	2nd " ...	64	3	77	6	150	34	38	72
	3rd " ...	67	3	76	4	150	43	44	87
	4th " ...	73	3	79	5	160	33	47	80
	Total ...	286	12	291	20	609	166	175	341
St. Nicholas'	1st Quarter.	31	...	31	3	65	74	41	115
	2nd " ...	38	1	25	1	65	64	37	101
	3rd " ...	36	2	38	3	79	64	31	95
	4th " ...	31	2	38	5	76	53	36	89
	Total ...	136	5	132	12	285	255	145	400
All Saints' ...	1st Quarter.	141	10	110	7	268	74	58	132
	2nd " ...	119	10	105	6	240	58	58	116
	3rd " ...	120	10	107	5	242	67	51	118
	4th " ...	96	7	117	6	226	65	77	142
	Total ...	476	37	439	24	976	264	244	508
Byker ...	1st Quarter.	193	3	186	7	389	77	67	144
	2nd " ...	207	2	202	2	413	80	81	161
	3rd " ...	203	2	206	2	413	86	99	185
	4th " ...	175	7	203	6	391	84	107	191
	Total ...	778	14	797	17	1,606	327	354	681
City ...	1st Quarter.	774	31	722	43	1,570	478	416	894
	2nd " ...	753	38	698	29	1,518	435	376	811
	3rd " ...	743	27	733	30	1,533	447	389	836
	4th " ...	684	25	740	33	1,482	409	488	897
	Totals ...	2,954	121	2,893	135	6,103	1,769	1,669	3,438

The Births represent a rate of 39.3, and the Deaths a rate of 22.2 per 1,000 estimated population. The increase of births over deaths is 2,665 this year, as compared with 1,864 in 1885. The increase of population of Midsummer, 1886, over that of Midsummer, 1885, is estimated by the Registrar General at 1,908 persons, and the increase of that of Midsummer, 1887, over that of 1886, at 1,931 persons.

TABLE II.

ANNUAL DEATH-RATE PER 1,000 LIVING IN NEWCASTLE FOR EACH OF THE PAST TWO YEARS, COMPARED WITH THE AVERAGE RATE IN THE LARGE TOWNS OF THE UNITED KINGDOM.

	1885.		1886.	
	Annual Average in 28 Towns.	Annual Rate in New-castle.	Annual Average in 28 Towns.	Annual Rate in New-castle.
1st Quarter	22.7	*26.5	24.4	23.0
2nd „	20.6	32.5	18.6	20.9
3rd „	18.8	†24.0	20.4	21.6
4th „	20.0	21.2	20.3	23.0
Annual Rate	20.5	26.0	20.9	22.2

* 12 weeks.

† 14 weeks.

TABLE III.

RETURN OF CAUSES OF DEATH IN THE REGISTRATION SUB-DISTRICTS AND ENTIRE CITY DURING THE 52 WEEKS ENDED 1ST JANUARY, 1887.

CAUSE OF DEATH.	REGISTRATION SUB-DISTRICTS.					
	West-gate.	St. Andrew's.	* St. Nicholas'.	All Saints'.	Byker.	City.
I.—SPECIFIC, FEBRILE, OR ZYMOTIC DISEASES.						
1.— <i>Miasmatic Diseases.</i>						
Measles	22	3	1	6	10	42
Scarlet Fever (Scarlatina) ...	28	...	1	7	9	45
Diphtheria	6	1	1	3	8	19
Whooping-Cough	54	9	5	9	25	102
Enteric or Typhoid Fever ...	14	3	7	2	8	34
2.— <i>Diarrhœal Diseases.</i>						
Simple Cholera	2	...	1	...	...	3
Diarrhœa, Dysentery	61	18	10	19	39	147
3.— <i>Malarial Diseases.</i>						
(e.g., Remittent Fever, Ague) ...	...	...	...	1	...	1
5.— <i>Venereal Diseases.</i>						
Syphilis	10	...	4	7	1	22
Carried forward	197	34	30	54	100	415

* The number of Deaths in St. Nicholas' Sub-district is increased by 212 in the Infirmary, and 8 in the Fever Hospital, 97 of the former came to that Institution from beyond the City, and in 14 other cases residences were unknown.

TABLE III.—CONTINUED.

RETURN OF CAUSES OF DEATH IN THE REGISTRATION SUB-DISTRICTS AND
ENTIRE CITY DURING THE 52 WEEKS ENDED 1ST JANUARY, 1887.

CAUSE OF DEATH.	REGISTRATION SUB-DISTRICTS.					
	West- gate.	St. Andrew's.	St. Nicholas'.	All Saints'.	Byker.	City.
Brought forward	197	34	30	54	100	415
6.— <i>Septic Diseases.</i>						
Erysipelas	7	1	1	1	2	12
Pyæmia, Septicæmia	2	1	5	1	1	10
Puerperal Fever	10	...	...	...	1	11
II.—PARASITIC DISEASES.						
Thrush	4	...	...	...	1	5
III.—DIETIC DISEASES.						
Starvation & Want of Breast Milk	7	...	...	...	...	7
Chronic Alcoholism, Delirium Tremens	7	...	8	1	2	18
IV.—CONSTITUTIONAL DISEASES.						
Rheumatic Fever and Rheuma- tism of the Heart	2	...	1	1	...	4
Rheumatism	6	...	...	4	2	12
Gout ... ..	...	1	...	1	...	2
Rickets	2	...	...	2	...	4
Cancer, Malignant Disease ...	30	10	16	11	14	81
Tabes Mesenterica	28	3	2	2	12	47
Tubercular Meningitis, Hydro- cephalus	24	6	3	4	6	43
Phthisis	165	36	54	42	65	362
Other Tubercular and Scrofulous Diseases	33	7	12	5	8	65
Anæmia, Chlorosis, Leucocythæ- mia	5	3	2	2	1	13
Glycosuria, Diabetes Mellitus ...	...	...	5	...	1	6
V.—DEVELOPMENTAL DISEASES.						
Premature Birth	44	6	13	8	18	89
Atelectasis ... ..	...	...	...	...	1	1
Congenital Malformations ...	3	...	...	1	1	5
Old Age	84	17	4	13	26	144
VI.—LOCAL DISEASES.						
1.— <i>Diseases of Nervous System.</i>						
Inflammation of Brain or Mem- branes	36	14	12	12	21	95
Apoplexy, Softening of Brain, Hemiplegia, Brain Paralysis ...	81	20	17	22	30	170
Insanity, General Paralysis of the Insane	2	...	...	...	...	2
Epilepsy	4	...	2	...	2	8
Carried forward	783	159	187	187	315	1,631

TABLE III.—CONTINUED.

RETURN OF CAUSES OF DEATH IN THE REGISTRATION SUB-DISTRICTS AND ENTIRE CITY DURING THE 52 WEEKS ENDED 1ST JANUARY, 1887.

CAUSE OF DEATH.	REGISTRATION SUB-DISTRICTS.					
	West-gate.	St. Andrew's.	St. Nicholas.	All Saints.	Byker.	City.
Brought forward	783	159	187	187	315	1,631
1.— <i>Nervous System.—Continued.</i>						
Convulsions	50	21	7	41	25	144
Paralysis Agitans, Paraplegia, Disease of Spinal Cord ...	10	4	2	2	2	20
Other Diseases of Nervous System	7	2	3	3	9	24
3.— <i>Diseases of Circulatory System.</i>						
Endocarditis, Valvular Diseases of Heart	9	5	3	2	7	26
Pericarditis	2	...	...	...	...	2
Other Diseases of Heart	86	13	25	21	31	176
Aneurism	1	...	2	...	1	4
Embolism, Thrombosis	1	...	1	...	...	2
Other Diseases of Blood Vessels...	...	...	1	...	...	1
4.— <i>Diseases of Respiratory System.</i>						
Croup	10	4	4	6	3	27
Laryngitis	12	1	2	6	2	23
Bronchitis	123	29	11	49	37	249
Pneumonia... ..	59	19	18	44	35	175
Pleurisy	9	1	1	1	1	13
Emphysema, Asthma	9	1	1	1	3	15
Other Diseases of Respiratory System	13	3	2	2	4	24
5.— <i>Diseases of Digestive System.</i>						
Dentition	20	2	...	5	11	38
Diseases of Stomach	14	3	1	4	6	28
Enteritis	5	2	1	2	1	11
Peritonitis	7	...	2	4	4	17
Obstructive Diseases of Intestine	3	...	2	1	5	11
Ascites	1	...	...	1	...	2
Cirrhosis of Liver... ..	16	1	2	4	3	26
Jaundice & other Diseases of Liver	18	3	2	7	9	39
Other Diseases of Digestive System	4	...	...	...	...	4
6.— <i>Diseases of Lymphatic System.</i>						
(e.g., of Lymphatics and of Spleen)	...	...	...	...	1	1
8.— <i>Diseases of Urinary System.</i>						
Nephritis	1	...	3	...	1	5
Bright's Disease, Albuminuria ...	15	5	3	8	6	37
Disease of Bladder and of Prostate	4	1	5	1	2	13
Other Diseases of Urinary System	2	2	3	...	4	11
9.— <i>Diseases of Re-Productive System.</i>						
(A) Of Organs of Generation.						
Female Organs	1	...	2	...	...	3
(B) Of Parturition.						
Abortion, Miscarriage ... ..	...	...	1	1	...	2
Puerperal Convulsions	2	...	...	...	2	4
Placenta Prævia, Flooding	2	...	1	...	1	4
Carried forward	1,299	281	298	403	531	2,812

TABLE III.—CONTINUED.

RETURN OF CAUSES OF DEATH IN THE REGISTRATION SUB-DISTRICTS AND
ENTIRE CITY DURING THE 52 WEEKS ENDED 1ST JANUARY, 1887.

CAUSE OF DEATH.	REGISTRATION SUB-DISTRICTS.					
	West- gate.	St. Andrew's.	St. Nicholas'.	All Saints'.	Byker.	City.
Brought forward	1,299	281	298	403	531	2,812
9.— <i>Diseases of Re-Productive System.—Continued.</i>						
Other Accidents of Childbirth ...	8	1	3	2	6	20
10.— <i>Diseases of Locomotive System</i>						
Caries, Necrosis	4	2	1	2	...	9
Other Diseases of Locomotive System	1	...	4	1	1	7
11.— <i>Diseases of Integumentary System</i>						
... ..	1	...	...	...	...	1
VII.—VIOLENCE.						
1.— <i>Accident, Negligence, etc.</i>						
Fracture and Contusion	13	1	27	3	4	48
Burn and Scald	4	...	5	...	2	11
Poison ... ..	...	...	...	1	...	1
Drowning	1	...	...	4	2	7
Suffocation... ..	6	1	1	6	...	14
Hernia ... ..	...	1	2	...	2	5
Deaths consequent on Surgical Operation ... ..	...	...	4	...	...	4
Otherwise	1	...	...	...	1	2
2.— <i>Homicide.</i>						
Murder and Manslaughter ...	2	...	5	1	...	8
3.— <i>Suicide.</i>						
Gunshot Wound ... ..	...	...	1	...	1	2
Cut, Stab	2	...	...	...	...	2
Poison ... ..	...	1	1	2	1	5
Drowning	2	...	1	...	...	3
Hanging ... ..	...	1	1	...	1	3
Otherwise ... ..	...	...	...	...	1	1
4.— <i>Execution.</i>						
Hanging ... ..	...	...	...	1	...	1
VIII.—DEATHS FROM ILL-DE- FINED AND NOT SPECIFIED CAUSES.						
Dropsy ... ..	...	...	...	2	1	3
Debility, Atrophy, Inanition ...	100	32	11	43	93	279
Mortification	5	...	5	...	...	10
Tumour	4	2	6	1	1	14
Abscess	6	3	1	3	1	14
Hæmorrhage	3	2	2	...	...	7
Sudden Death (Cause not ascer- tained) ... ..	...	...	...	...	1	1
Found Dead (Cause not stated) ...	7	2	4	7	5	25
Other Causes not specified or ill- defined	39	11	17	26	26	119
TOTALS	1,508	341	400	508	681	3,438

TABLE IV.

THE FOLLOWING TABLE SHEWS THE WEEKLY NUMBERS OF DEATHS FROM CERTAIN DISEASES, LIABLE TO FLUCTUATION, DURING THE 52 WEEKS ENDED 1ST JANUARY, 1887:—

WEEK ENDED.	Pulmonary Consumption.	Diseases of Respiratory Organs other than Consumption.	SEVEN CHIEF ZYMOTIC DISEASES.								Total of Seven Chief Zymotic Diseases.	
			Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Fever.				Diarrhoea.
								Typhus.	Enteric.	Continued.		
Jan. 9 ...	7	8	...	...	...	...	1	...	...	...	...	1
" 16 ...	10	11	...	...	...	...	3	...	...	...	1	4
" 23 ...	6	10	...	1	...	1	5	...	1	...	...	8
" 30 ...	8	12	...	...	...	...	1	...	2	...	...	3
Feb. 6 ...	11	9	...	1	1	...	1	...	...	...	1	4
" 13 ...	9	14	...	1	...	...	3	...	1	...	...	5
" 20 ...	7	14	...	...	1	1	3	...	...	...	...	5
" 27 ...	5	21	...	...	...	...	1	...	1	...	1	3
Mar. 6 ...	10	17	...	...	1	1	4	...	...	...	2	8
" 13 ...	5	22	...	1	2	...	3	...	1	...	1	8
" 20 ...	12	12	...	...	1	...	5	...	...	...	...	6
" 27 ...	8	7	...	...	...	1	4	...	1	...	...	6
April 3 ...	4	6	...	...	1	...	4	...	...	...	1	6
" 10 ...	8	9	...	...	1	...	4	...	...	...	...	5
" 17 ...	6	8	...	...	...	...	3	...	...	...	1	4
" 24 ...	6	13	...	...	...	...	2	...	1	...	...	3
May 1 ...	15	6	...	1	...	...	6	...	...	...	...	7
" 8 ...	8	14	...	...	1	2	4	...	1	...	1	9
" 15 ...	7	9	...	...	1	...	4	...	1	...	...	6
" 22 ...	4	8	...	...	...	...	1	...	1	...	...	2
" 29 ...	8	8	...	1	...	...	5	...	...	...	...	6
June 5 ...	8	12	...	...	...	...	2	...	...	...	1	3
" 12 ...	15	6	...	...	2	...	2	...	...	...	...	4
" 19 ...	4	12	...	...	2	...	4	...	...	...	...	3
" 26 ...	3	13	...	...	...	...	...	...	1	...	1	2
July 3 ...	5	7	...	2	...	1	3	...	2	...	1	9
" 10 ...	7	6	...	1	1	...	1	...	2	...	2	7
" 17 ...	8	7	...	...	1	...	2	...	...	...	2	5
" 24 ...	5	6	...	1	1	...	1	...	...	...	3	6
" 31 ...	6	3	...	...	...	1	1	...	...	...	5	7
Aug. 7 ...	7	5	...	...	1	...	...	...	...	...	4	5
" 14 ...	5	6	...	...	...	...	1	...	...	...	1	2
" 21 ...	5	7	...	1	...	1	2	...	...	...	5	9
" 28 ...	10	5	...	1	1	...	2	...	1	...	6	11
Sept. 4 ...	6	2	...	...	...	...	...	...	...	...	14	14
" 11 ...	4	9	...	...	...	...	2	...	1	...	21	24
" 18 ...	4	11	...	3	...	1	2	...	...	...	21	27
" 25 ...	5	2	...	...	1	1	...	...	4	...	20	26
Oct. 2 ...	6	10	...	...	2	1	...	...	1	...	6	10
" 9 ...	7	7	...	1	3	1	1	...	2	...	10	18
" 16 ...	7	10	...	1	...	...	...	...	3	...	3	7
" 23 ...	8	13	...	...	1	...	1	...	...	...	2	4
" 30 ...	4	13	...	1	2	...	...	...	...	...	4	7
Nov. 6 ...	3	10	...	1	3	1	...	...	...	...	1	6
" 13 ...	8	12	...	3	...	...	2	...	1	...	...	6
" 20 ...	6	10	...	1	2	...	...	...	1	...	2	6
" 27 ...	5	16	...	1	1	1	1	...	...	...	...	4
Dec. 4 ...	12	9	...	2	1	...	1	...	1	...	...	5
" 11 ...	8	10	...	4	1	1	2	...	1	...	1	10
" 18 ...	6	13	...	1	3	1	...	...	...	...	2	7
" 25 ...	5	13	...	5	3	...	3	...	1	...	...	12
Jan. 1 ...	6	23	...	6	3	2	2	...	1	...	...	14
Totals...	362	526	...	42	45	19	102	...	34	...	147	389

TABLE V.—AGES AT DEATH.

Periods.	REGISTRATION SUB-DISTRICTS.					
	Westgate.	St. Andrew's.	St. Nicholas'.	All Saints'.	Byker.	Total in City.
Under 1 Year ...	396	98	52	152	253	951
1 Year and under 5 Years .	236	43	36	95	108	518
5 Years " 20 " ...	124	20	47	40	35	266
20 " " 40 " ...	195	44	93	62	87	481
40 " " 60 " ...	241	55	115	77	93	581
60 " " 80 " ...	275	67	55	73	88	558
80 " and upwards ...	41	14	2	8	17	82
Age not known ...	...	...	...	1	...	1
Total (all ages) dying during 52 weeks ended 1st Jan., 1887 ...	1,508	341	400	508	681	3,438

TABLE VI.

BIRTHS AND DEATHS IN THE DIFFERENT QUARTERS OF THE YEARS
1885, 1886.

	BIRTHS.		DEATHS.	
	1885.	1886.	1885.	1886.
First Quarter ...	*1,385	1,570	*936	894
Second " ...	1,528	1,518	1,244	811
Third " ...	†1,493	1,533	†992	836
Fourth " ...	1,442	1,482	812	897
Totals ...	5,848	6,103	3,984	3,438

TABLE VII.

DEATHS OF CHILDREN UNDER 1 YEAR AND PERSONS OVER 60 YEARS
IN 1883, 1884, 1885, 1886.

	NUMBER OF DEATHS.							
	Under 1 Year of Age.				Over 60 Years.			
	1883.	1884.	1885.	1886.	1883.	1884.	1885.	1886.
First Quarter ...	215	220	*228	215	191	158	*178	191
Second " ...	198	169	301	206	141	151	179	140
Third " ...	277	317	†277	299	154	158	†152	123
Fourth " ...	229	243	201	231	181	184	156	186
Totals ..	919	949	1,007	951	667	651	665	640

* 12 Weeks.

† 14 Weeks

TABLE VIII.

DEATHS OF CHILDREN UNDER ONE YEAR OF AGE DURING THE 52 WEEKS
ENDED JANUARY 1ST, 1887.

CAUSE OF DEATH.	REGISTRATION SUB-DISTRICTS.					
	Total in City.	West- gate.	St. Andrew's.	St. Nicholas'.	All Saints'.	Byker.
I.—SPECIFIC, FEBRILE, OR ZYMOTIC DISEASES.						
1.— <i>Miasmatic Diseases.</i>						
Measles	10	2	2	...	2	4
Scarlet Fever (Scarlatina) ...	9	4	...	...	2	3
Diphtheria	4	2	...	...	...	2
Whooping-Cough	52	26	5	...	6	15
2.— <i>Diarrhœal Diseases.</i>						
Diarrhœa, Dysentery	95	36	10	7	15	27
5.— <i>Venereal Diseases.</i>						
Syphilis	14	8	...	1	4	1
6.— <i>Septic Diseases.</i>						
Erysipelas	3	3	...	...	...	...
Pyæmia, Septicæmia	2	...	1	...	...	1
II.—PARASITIC DISEASES.						
Thrush	4	3	...	...	...	1
III.—DIETIC DISEASES.						
Starvation and Want of Breast Milk	7	7	...	...	...	...
IV.—CONSTITUTIONAL DISEASES.						
Tabes Mesenterica	22	13	2	2	...	5
Tubercular Meningitis, Hydro- cephalus	18	9	5	...	2	2
Phthisis	1	...	...	...	...	1
Other Tubercular and Scrofulous Diseases	17	5	6	3	1	2
Anæmia, Chlorosis, Leucocythæ- mia	1	...	...	...	...	1
V.—DEVELOPMENTAL DISEASES.						
Premature Birth	89	44	6	13	8	18
Atelectasis	1	...	...	...	...	1
Congenital Malformations ...	5	3	...	...	1	1
VI.—LOCAL DISEASES.						
1.— <i>Diseases of Nervous System.</i>						
Inflammation of Brain or Mem- branes	26	8	8	...	4	6
Convulsions	117	43	16	6	35	17
Other Diseases of Nervous System	3	1	...	...	...	2
3.— <i>Diseases of Circulatory System</i>						
Diseases of Heart	1	1	...	...	...	...
4.— <i>Diseases of Respiratory System</i>						
Croup	6	1	1	2	1	1
Laryngitis	5	4	...	1	...	...
Bronchitis	63	32	4	3	11	13
Pneumonia	36	12	1	2	7	14
Other Diseases of Respiratory System	1	...	...	...	1	...
Carried forward	612	267	67	40	100	138

TABLE VIII.—CONTINUED.

DEATHS OF CHILDREN UNDER ONE YEAR OF AGE DURING THE 52 WEEKS
ENDED JANUARY 1ST, 1887.

CAUSE OF DEATH.	REGISTRATION SUB-DISTRICTS.					
	Total in City.	West- gate.	St. Andrew's.	St. Nicholas'.	All Saints'.	Byker.
Brought forward	612	267	67	40	100	138
<i>5.—Diseases of Digestive System.</i>						
Dentition	24	14	2	...	1	7
Diseases of Stomach	3	1	...	...	1	1
Enteritis	5	3	...	...	1	1
Peritonitis	2	1	...	...	1	...
Obstructive Diseases of Intestine	3	1	...	...	...	2
Jaundice and other Diseases of Liver	5	3	...	...	1	1
Other Diseases of Digestive System	3	3	...	...	...	...
<i>9.—Diseases of Re-productive System.</i>						
<i>(B) Of Parturition.</i>						
Accidents of Childbirth	3	2	...	...	1	...
VII.—VIOLENCE.						
<i>1.—Accident, Negligence, etc.</i>						
Fracture and Contusion	1	...	...	...	...	1
Suffocation... ..	13	5	1	1	6	...
VIII.—DEATHS FROM ILL- DEFINED AND NOT SPECIFIED CAUSES.						
Dropsy	1	...	...	...	1	...
Debility, Atrophy, Inanition ...	225	77	23	7	31	87
Abscess	3	...	1	...	1	1
Hæmorrhage	4	3	1	...	...	...
Sudden Death (cause not ascer- tained)	1	...	...	...	...	1
Found Dead (Cause not stated) ...	9	3	1	1	1	3
Other Causes not specified or ill-defined	34	13	2	3	6	10
Total	*951	396	98	52	152	253

* Representing a rate of 61 per 1,000 population at all ages.

TABLE IX.

UNCERTIFIED DEATHS IN EACH SUB-DISTRICT DURING THE 52 WEEKS ENDED
1ST JANUARY, 1887.

ALLEGED CAUSE OF DEATH.	Westgate.			St. Andrew's.			St. Nicholas'.			All Saints'.			Byker.			Total.		
	Under 1 Year.	1 Year and Under 2.	2 Years and Above.	Under 1 Year.	1 Year and Under 2.	2 Years and Above.	Under 1 Year.	1 Year and Under 2.	2 Years and Above.	Under 1 Year.	1 Year and Under 2.	2 Years and Above.	Under 1 Year.	1 Year and Under 2.	2 Years and Above.	Under 1 Year.	1 Year and Under 2.	2 Years and Above.
Scarlet Fever ...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Effects of Whooping-Cough ...	...	...	...	...	...	...	...	...	...	...	...	...	...	*1	...	...	*1	...
Diarrhoea ...	...	...	*1	...	...	...	...	...	...	...	...	...	...	...	...	...	*1	...
Syphilis ...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Consumption ...	...	...	*1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	*1
Premature Birth ...	2	...	...	...	...	...	4	...	...	...	...	...	...	...	...	6	...	...
Old Age ...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Apoplexy ...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Paralysis or some other Natural Cause ...	...	...	*1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	*1
Convulsions ...	5	...	...	4	...	...	1	...	...	15	...	...	...	1	...	25	1	...
Convulsion Fits ...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Heart Disease ...	...	...	**2	...	...	...	...	...	...	...	...	*1	...	...	...	...	...	***3
Syncope ...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Bronchitis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	*1	...	...	...	*1
Bronchitis and Convulsions ...	...	...	...	1	1	...	...	...	...	...	...	...	1	...	...	2	1	...
Broncho Pneumonia ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Pneumonia and Convulsions ...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Inflammation of Lungs ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	*1	...	...	*1
Ulceration of Stomach, Peritonitis, and Hoemorrhage...	...	...	*1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	*1
Difficult Labour ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Debility ...	1	...	...	1	...	...	...	...	...	3	...	...	6	...	...	11	...	...
Exhaustion & Decay of Nature ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	*1	...	...	*1
Carried forward...	10	2	6	7	1	3	5	...	...	18	...	1	7	2	4	47	5	14

* The asterisks refer to deaths registered on certificate from the Coroner.

TABLE IX.—CONTINUED.

UNCERTIFIED DEATHS IN EACH SUB-DISTRICT DURING THE 52 WEEKS ENDED
1ST JANUARY, 1887.

ALLEGED CAUSE OF DEATH.	Westgate.			St. Andrew's.			St. Nicholas'.			All Saints'.			Byker.			Total.		
	Under 1 Year.	1 Year and Under 2.	2 Years and Above.	Under 1 Year.	1 Year and Under 2.	2 Years and Above.	Under 1 Year.	1 Year and Under 2.	2 Years and Above.	Under 1 Year.	1 Year and Under 2.	2 Years and Above.	Under 1 Year.	1 Year and Under 2.	2 Years and Above.	Under 1 Year.	1 Year and Under 2.	2 Years and Above.
Brought forward...	10	2	6	7	1	3	5	...	...	18	...	1	7	2	4	47	5	14
Exhaustion ...	...	...	...	...	...	...	...	...	...	1	...	...	3	...	...	4	...	...
Deficient Vitality ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Convulsions or some Natural Cause ...	1	...	...	...	...	...	...	...	...	*1	...	...	*3	...	...	**5	...	...
Believed from a Convulsion or other Natural Cause ...	...	...	...	...	...	...	...	...	...	*1	...	...	...	...	...	*1	...	...
Believed from a Convulsion Fit...	...	...	...	...	...	...	...	...	...	*1	...	...	...	...	...	*1	...	...
A Fit or some other Natural Cause ...	...	...	...	...	...	...	...	...	...	...	...	...	*1	...	...	*1	...	...
Heart Disease or some other Natural Cause	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	2
Believed from Heart Disease ...	...	...	...	...	...	...	...	...	...	...	*1	...	...	...	*1	...	...	**2
Supposed Bronchitis .	...	...	...	...	...	...	...	...	...	...	*1	...	...	...	...	...	...	*1
Bronchitis or other Natural Causes ...	...	*1	...	...	...	...	1	...	...	...	...	...	*1	...	1	**2	...	...
Believed from Decay of Liver ...	...	...	...	...	...	...	...	...	...	...	*1	...	...	...	...	...	...	*1
Supposed Marasmus .	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...
Believed from General Debility or some other Natural Cause	...	...	...	...	...	...	...	...	...	...	*1	...	...	...	...	...	...	*1
Believed from Atrophy and Diarrhoea .	...	...	...	...	...	...	...	...	...	*1	...	...	...	...	...	...	*1	...
Abscess on Leg ...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Died suddenly in Bed in her Father's House ...	...	...	...	...	...	...	...	...	...	...	...	...	*1	...	...	*1	...	...
Some Natural Cause .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	*1	...	...	*1
Total ...	12	3	6	8	1	3	7	...	...	21	2	5	15	3	8	63	9	22

* The asterisks refer to deaths registered on certificate from the Coroner.

TABLE X.
ZYMOTIC DISEASES, A.D. 1886.

STREET LIST OF CASES AND DEATHS FROM THE UNDERMENTIONED DISEASES,
CORRECTED BY DISTRIBUTION OF THOSE OCCURRING IN THE FEVER AND
SMALL-POX HOSPITALS TO THE STREET FROM WHICH EACH PATIENT WAS
REMOVED.

LOCALITY.	* CASES AND DEATHS FROM						
	Small-pox.	Typhus Fever.	Enteric or Typhoid Fever.	Con- tinued Fever.	Puer- peral Fever.	Scarlet Fever.	Diph- theria.
Addison road	5	...
Addison street	1	...
Adelaide terrace	3*
Albert street	1	...
Albion place	4	...
Albion row	1*	4	...
„ Day's buildings	1	...
Albion street	1	...
Alexander street	5*	1	...	7	...
Algernon road	2	...
Alma terrace	1	...	...	...	1*
Ancrum street	2	...
Bailiffgate	1	...	...	...	...
Barrack road	2	...
„ (Barracks)	1*	...	...	14	2
Barrack square	6*	...
Bath lane	1	1	...	...	...	...
Bayley street	2	...
„ (back)	1	...
Beaconsfield street	3	...
Beaumont street	1	...	1*	6	...
Bedford street	1	...
„ Bedford place..	1	...	1	...
Bell street	1	...
Bell terrace	1	...	...	...
Bellegrove terrace, west	1*
Belvidere street	1*	1
Bentinck street	1	...
Blackett street...	1	...
Blandford street	2	2	...	12*	...
Blenheim street	1*	2	...
Bolingbroke street	2	...	1	...
Bowman terrace	1	...	...	...	...
Brandling park	1*	...	...	...	...
Brighton grove	2	...
Brougham place	1	...
Brunel terrace	1	...	...	4	...
Bryson terrace	3	...
Buckingham street	4	1	2**	...	...
Bulmer street	1	...	...	...
Burnaby street	1	...
Burton street	3	...
Buxton street	4	1*

* The asterisks represent deaths and the numerals the total cases in each street.

TABLE X.—CONTINUED.

STREET LIST OF CASES AND DEATHS FROM THE UNDERMENTIONED DISEASES.

LOCALITY.	* CASES AND DEATHS FROM						
	Small-pox.	Typhus Fever.	Enteric or Typhoid Fever.	Continued Fever.	Puer-peral Fever.	Scarlet Fever.	Diph-theria.
Byker bank	1	...	1	...
" Byker buildings...	2	1	...	...	...
Byker street	1	1
Byron terrace	1	...
Cambridge street	1*	...
Camden street	1	...
Canada street	1	...	...	7*	...
Cannon street	1*	...	...	1	...
Carlhol street	1	...
Carlton street	1	...	...	1	...
Carr street	1	...	...	...
Centre street	2	...	...	...	...
Chapel lane, Westmorland st.	1	...	...	...	...
Chatham place	4*	...
Chester street	1	...	...	...	...
Chesterfield view	1*
Chimney mills	2	...
Choppington street	1	...
Church street	2	...
Churchill st., Churchill cottages	1	...	1*	...	...
City road	3	...
" Egypt house	1	...
" Rose and Crown yard	1*	...
" Scott's entry	2	...
" Soaphouse lane	2	...
Claremont street	2	...
Clarence crescent	1	...	...	2	...
Clarence street	1	...
Clarence terrace	2	...
Clayton park square	2	...
Clayton street	2	...	1	...
Clayton street west	1	...	...	...	...
Clifford street	3*	1	...	4	...
Close	2	...
" Alderson's entry	1	...	...	...
Clumber street...	6*	...	...	9**	...
Conyers road†...	4	1*
Cook street	8	...
" (back)	1	...
Cookson street	1	...	...	3*	...
Copland terrace	4	...
Corbridge street	2*	...	...	2	...
Cottenham street	7*	...
" (back)	2	...
Crescent place...	1	...	...	2	...
Crispin street (back A)	1	...
" (back B)	2	...	...	4*	...
Crossley terrace	1	...
Crown street	1	...
Cut bank	1*	...	...	1	...

* The asterisks represent deaths and the numerals the total cases in each street.

† Relapsing Fever, 1.

TABLE X.—CONTINUED.

STREET LIST OF CASES AND DEATHS FROM THE UNDERMENTIONED DISEASES.

LOCALITY.	* CASES AND DEATHS FROM						
	Small-pox.	Typhus Fever.	Enteric or Typhoid Fever.	Continued Fever.	Puer-peral Fever.	Scarlet Fever.	Diph-theria
Dalton street	3	...
Day street	1	...	...	2	...
De Grey street...	1	4	...	2	...
Denmark street	3	...
Dent's hole, West House square	1	...
Derby street	6*	...
" (back)	2	...
Diana street	5	...
Dilston road	3	...
Dobson street	1	...
Dog bank	2	...	...	...	...
Dog-leap stairs, Dog-leap ter.	1	...
Douglass terrace	4	...
Duke street	4	...
Dunn street	2	...
Dunn terrace, Spital Tongues	1	...
Dunn terrace, Byker bank	1	...	4	...
Durham street...	3	...
Edgeware road...	5	...
Edward street	8	...
Edwin street	4	...
Elswick east terrace	4	1	...	3	...
Elswick place	1	...	...	...	...
Elswick row	1	...	...	1	...
Elswick street...	4*	1	...	13	...
Elvet street	2	...
Enfield road	2	...
Errington street	1	...	...	4	...
" (back)	1	...	...	...	...
Essex street	1	...
Fairless street	1*	...	...	6	...
Falconar street...	4	...
Fell street	4*	...
Felton street	1	...
Fore street, Jesmond vale	1	...
Forth banks	1	...
" (Infirmery)	1	...	1*	...	...	3*	2
" Pitman's row	1	...	...
Forth place	1	...	...	...	...
Forth terrace	1	...
" (back)	1	...
Franklin street	3	...	...	6	...
Gallowgate, Carnaby's yard	1	...	...	...	...
" Carver's yard	2	...
" Fleece court	1	...
Garden street	1	...
Gardener street	1	...
Garth heads, Indust. dwellings	1	...	4	...

* The asterisks represent deaths and the numerals the total cases in each street.

TABLE X.—CONTINUED.

STREET LIST OF CASES AND DEATHS FROM THE UNDERMENTIONED DISEASES.

LOCALITY.	* CASES AND DEATHS FROM						
	Small-pox.	Typhus Fever.	Enteric or Typhoid Fever.	Continued Fever.	Puerperal Fever.	Scarlet Fever.	Diphtheria.
George street	2	...	...	12	...
" (back)	1	...	...	1*	...
Gibson street	10	...
Gladstone street	4	...
Gladstone terrace	1	...
Glasshouse street	4	...
Gloucester road	1	...
Gloucester street	1*
Glue terrace	4	...
Gosforth street...	6	1*
Grace street	1
Grafton street	2	...
Greenhow place	*1	...	...
Grenville street	2	...
Grey street	1	...
Grove street	4**
Haldane terrace	1	...
Hamilton street	13*	...
Hanover square, White's yard..	2
Harle street (back)	1	...
Harrison place...	1	...
Hartington street	1	...
Harvey street	1*	...	...	3	2
Hawes street	3	...
Haymarket	2	...
Hawthorn street	1	...	...	1	...
Headlam street	8*	1
Heaton park road	1	...
Hedley street	1	...
Hedley terrace	1	...
Henry street	1	...
Herbert street	1	1	...	3	...
Hewgill terrace	3	...
High bridge	2	...	...	...	...
High Friar street	1	...	...	...	...
Hill street	7*	...
Hindhaugh street	1	...
Holly avenue	1	...
Horatio street (back)...	1	...
Howard street	1	...	...	1	...
Hull street	1	...	...	2	...
Ingham place	1	...
Janet street	1	1*
James place	1	...
Jefferson street	7	...
Jesmond	1
Jesmond vale	5	...
" Kirsop street	1	...

* The asterisks represent deaths and the numerals the total cases in each street.

TABLE X.—CONTINUED.

STREET LIST OF CASES AND DEATHS FROM THE UNDERMENTIONED DISEASES.

LOCALITY.	* CASES AND DEATHS FROM						
	Small-pox.	Typhus Fever.	Enteric or Typhoid Fever.	Continued Fever.	Puerperal Fever.	Scarlet Fever.	Diphtheria.
John street	1	1	...	5	...
„ (back)	1	...
Kent street	1	...
Kirk street	3	...	...	4	1
Langhorn street	1	...	...	5*	...
Larkspur terrace	4	...
Lawson street	1	...
Leazes crescent	1	...
Leazes lane	3	...
„ Arthur square	1	...
Leazes terrace	1	...	...	...	...
Lily avenue	1	...	...	...	...
Lily crescent	1
Little Blagdon street	1	...	...	...	...
Liverpool street	1	...	...	...	...
Loadman street	1	...	...	4	...
Long row, Spital Tongues	1*	...	...	...	...
Longley street	1	...
Lord street	1	...	...	2	...
Lowrey street	1	...
Malcolm street	5	...
Maiden street	1	...	...	...	...
Manor chare
„ Croft stairs	1	...
Mansfield street	4	...
Maple street	1	...
Marianople street	2*	...	...	...	...
Market street	2	...
Marsden street	2	...
Mather street	4*	...
Matthew street	2	...
Melbourne street	2	...
Mill lane	3	...	...	...	...
Mill street	1	...	...	...	...
Milton street	4	...
Mitford street	6*	...	...	1	...
Molineux street	1*	...	...	4	1*
Monday street	5	...
Monk street	1	...	...	...	...
Moor edge	1	...	...	...	...
Morley street (late Quarry st.)	3*	...
Morpeth street	6	...
Morrison street	1	...	...	4	...
Mosley street	1	...	...	...	...
Mowbray street	1	...
Napier street	4	1
Nesham street	3	...

* The asterisks represent deaths and the numerals the total cases in each street.

TABLE X.—CONTINUED.

STREET LIST OF CASES AND DEATHS FROM THE UNDERMENTIONED DISEASES.

LOCALITY.	* CASES AND DEATHS FROM						
	Small-pox.	Typhus Fever.	Enteric or Typhoid Fever.	Continued Fever.	Puer-peral Fever.	Scarlet Fever.	Diph-theria.
Neville street	1
New Bridge street	1	...
Newcombe street	4	...
Newgate street	1	...	...	...	...	1	...
New mills	1	...
Noble street	3	2	..	1*	...
Norfolk road	1	...	...	3	...
Norfolk street	3	...
Normanton terrace	3	...
Northcote street	2	...
North terrace	1	...
Northumberland street	1	...	...	1	...
North view	1	1	...	...	1
Oaks place	1	...	...	1	...
Orchard street	1	...	3	...
Ouseburn, Singleton's buildgs.	1*
Osborne avenue	1	...
Otterburn terrace	4**	...
Otterburn villas	1
Oystershell lane	5	...
Palace street	2	...
Panmure street	9**	2	...	15	1
Park ville, Heaton	1
Parker street†	13	1*
Pawton dene gardens	1	...
Penn street	1	...
„ Rowell place	2	...
Percy street	2	...
„ Lax's gardens	1	...
„ Percy court	1	...
Picton place	2	...
Pilgrim street	5	...
„ Bell's court	6***	...
„ Bell's yard, Bell's crt.	1	...
„ Dean crt., Low bridge	1	...
„ Foster's court	1	...
„ Heath court...	1	...
„ Mountain's court	1	...	...	...	...
„ Painter heugh	1	...	...	1	1
„ Ridley Arms yard	1	...	...	...	...
„ Robson's court	1	...	...	...	...
Pine street	2	...
Pitt street	1*	...	...	12	...
Plummer street	2*	...
Portland road	1	...	...	3	...
Portland street	1	...	...	...	...
Portland terrace	3	...
Pottery bank	2	...
Prince Albert terrace	1	...	...	3	...

* The asterisks represent deaths and the numerals the total cases in each street.

† Relapsing Fever, 1.

TABLE X.—CONTINUED.

STREET LIST OF CASES AND DEATHS FROM THE UNDERMENTIONED DISEASES.

LOCALITY.	* CASES AND DEATHS FROM						
	Small-pox.	Typhus Fever.	Enteric or Typhoid Fever.	Continued Fever.	Puerperal Fever.	Scarlet Fever.	Diphtheria.
Prospect place	1	...	...	...	...
Prudhoe place	1	...	...	...	...
" No. 1 court	1	...
Prudhoe street	2	...
Pudding chare...	1	...
Quality row	1	...	...	1	1
" (back)	1	1	...
" Leighton's yard...	2*	2	...	1	...
Quayside	2	...
Queen's lane, Kinghorn's yard	2*	1	...	6	...
Raby street	3	1
Race street	3	...
Railway terrace, Crucible place	1	...	...	...	...
Ramshaw street	2	1	1*	3	...
Regent street	1	...
Regent terrace	3	...
Rendel street	3*	1	...	6	...
" (back)	1*	1	...
Richmond street	1	...	...	4	...
Ridley street	3	...
" (back)	1	...
Ripponden street	1	...
River street	2*	...
Robinson street	1
Rock street	3	...
Roger street	1	...
Rosedale place...	2**	...	...	3	...
Rosedale street	5	...
Rosedale terrace	5	...
Rothbury terrace	1
Russell terrace...	1	...	...	3	1
Ryehill	1	...
Salisbury street	1*	...	...	5	...
Sandyford road	2	...
Sandyford square	1	...	...	...	...
Sarah street	6	...
" (back)	1	...
Scotswood road	14**	1	1*	**25***	2*
" Back Boundary st.	1	...
Seaham street	1	...
Shakespeare street	3*	...	...	...	...
Shieldfield green	2	...
Shieldfield lane	3	...
Shields road	18*	2
" (back)	1	...
Shipley street	15	1
Shumac street	1	...	...	...
Silver street	2	...

* The asterisks represent deaths and the numerals the total cases in each street.

TABLE X.—CONTINUED.

STREET LIST OF CASES AND DEATHS FROM THE UNDERMENTIONED DISEASES.

LOCALITY.	* CASES AND DEATHS FROM						
	Small-pox.	Typhus Fever.	Enteric or Typhoid Fever.	Continued Fever.	Puerperal Fever.	Scarlet Fever.	Diphtheria.
Snow street	2	...
Snowdon street	1	...	...	...	...	...	...
Spring Garden lane	2*	...	...	...	...
Spring street	1	...	3	...
St. Andrew's street	1	...
St. Anthony's quay, Dock row	1	...
St. Cuthbert's terrace (back)...	1	...
St. James' terrace	3	...	...	...	...
St. Thomas' crescent	2	...
St. Thomas' street	2	...
Stanhope street	1	...	...	7	...
Stanley street, Crossby terrace	3	...
" Walker road	1	...	...	8	2*
Stanton street	9*	...
Stepney bank, Mill yard	2	...
Stepney street, Brown Jug yard	4	...
Stockbridge	1	...	...	...	...
Stoddart street	4	...
Stone street	1	...	...	19	...
Stowell street, Watson's court	1	...
Stratford grove	1	...	...	5	...
Strawberry lane	1	...
Strickland street	1	...
Suffolk street	1	...	...	...	...
Summerhill terrace	1	...
Sunderland street	1	...
Swan street	1	...	...	2	...
Sycamore street	4*	...
Tamworth road	1*	...	...	5	...
Tankerville terrace	1	...
Terrace place	1	...
Teynham street	7	...
Thompson street	1	1*
Thornborough street	2	...
Thornton street	1*	...
Thorpe street	1
Trafalgar street	5	...
" (back)	2	...
Tulloch street	2*
Turner street	1	...	...	6*	...
Tuthill stairs, Chapel yard	1	...
Tweed street (back)	2	...
Tyne terrace	1	...
Tynemouth road	4	1
Tyneside terrace	5	...
Union street	2*	...	...	2	...
Union terrace east	1	...
" south	1	...

* The asterisks represent deaths and the numerals the total cases in each street.

TABLE X.—CONTINUED.

STREET LIST OF CASES AND DEATHS FROM THE UNDERMENTIONED DISEASES.

LOCALITY.	* CASES AND DEATHS FROM						
	Small-pox.	Typhus Fever.	Enteric or Typhoid Fever.	Continued Fever.	Puerperal Fever.	Scarlet Fever.	Diphtheria.
Vale street	4	8
Victoria place	4	...
Victoria street	1	...	...	...	...
Villa place	1	...
" Cross Villa place, 3...	1	...
Walker road	1	...
Wall Knoll, Wilson's yard	1	...	...	...	...
Warwick street	1	...
Water street	2*	1	...	...	...
Wellington street	1	...	...	6**	...
Wentworth place	4	...
Wesley street	13	...
" (back)	2	...
West street	1	...	...	3	...
Westgate road...	1	2	...	4	...
" Workhouse	2	...	4**	...	1*	...	...
" Dawson's court...	1	...	...	1	...
Westmorland lane	2	...	...	...	...
Westmorland road	1	...
" Park parade	1	...	...	...	...
Westmorland street	1	...	...	...	...
Westmorland terrace	8**	...
Wharnccliffe street	1	...	...	...	7*
Wilfred street	1	...
William street	1	...
Wolsley road	4	...
Worley street	3	...
Wylam road	1	...	...	2*	...
TOTAL†	5	1	205	42	13	1,004	73

* The asterisks represent deaths and the numerals the total cases in each street.

† To the above Totals are to be added the 2 cases (not fatal) of Relapsing Fever, referred to in the street list (foot-notes).

N.B.—Among the cases notified under the Local Act as Continued Fever, two are certified as having died from Enteric Fever; one case notified as Puerperal Fever is certified as having died from Enteric Fever; and one case notified as Diphtheria is certified as having died from Croup. The cause of death only of the first two diseases named is recorded on the street list.

TABLE XI.

ADMISSIONS TO AND DEATHS AT THE FEVER AND SMALL-POX HOSPITALS
FROM 1ST JANUARY TO 31ST DECEMBER, 1886.

DISEASES.	ADMISSIONS.													DEATHS.						
	Jan.	Feb.	Mar.	April	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total	Jan.	Mar.	May.	June.	Oct.	Dec.	Total
Small-pox	1	...	...	...	1	...	...	...	...	2	...	...	...	...	...	...	...
Scarlet Fever	...	6	4	...	4	3	3	2	5	4	5	3	5	44	...	...	...	...	...	...
Typhus Fever	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
Enteric Fever	1	2	2	1	6	1	5	4	6	4	4	36	...	1	...	1	2	1
Continued Fever	2	...	2	1	1	2	8	...	...	...	...	...	...	...
Diphtheria	1	...	1	...	...	...	...	...	...	2	...	...	1	...	...	...	1
Measles	6	...	1	2	...	...	...	...	...	9	...	...	...	...	...	...	...
Febricula	1	...	...	...	...	1	...	...	...	2	...	...	...	...	...	...	...
Other Diseases, { not febrile }	...	1	...	3	...	...	...	...	...	...	...	...	4	1	1	...	...	...	...	2
TOTAL	...	8	5	13	7	6	11	5	11	11	12	8	11	108	1	2	1	1	2	1

TABLE XII.

RETURN OF SUSPECTED AND UNWHOLESOME PROVISIONS INSPECTED DURING
THE YEAR 1886.

PROVISIONS INSPECTED.	Amount of Suspected Provisions Inspected.	CONDITION.		BAD—HOW DISPOSED OF.	
		Fit for Food.	Unfit for Food.	Destroyed by Order of Justice.	Destroyed with Owner's Consent.
Carcases of Beef...	117	66	51	3	48
„ Veal...	18	6	12	...	12
„ Mutton	140	84	56	...	56
„ Pork...	129	96	33	...	33

Of the carcasses of beef returned as fit for food, eleven of the animals had been injured during the course of transit. All the bruised parts were cut off and destroyed.

Two persons have been proceeded against under the Public Health Act, for being the owners, or being in possession, of unsound meat intended for human food. One was fined £10 and costs; the other, on contributing £10 to a charitable fund, was fined 5s. and costs.

(Signed) WM. HEDLEY, INSPECTOR.

TABLE XIII.

RETURN OF FISH RECEIVED IN NEWCASTLE FISH MARKET, CLOSE, FROM
4TH JANUARY, 1886, TO 1ST JANUARY, 1887.

DESCRIPTION.	DELIVERED BY BOAT.						DELIVERED BY RAIL.					
	Baskets.	Barrels.	Boxes.	Kits.	Bags.	Fish.	Baskets.	Barrels.	Boxes.	Kits.	Bags.	Fish.
Cod ...	551	471	...	...	...	...	6	283	...	...	...	...
Conger ...	...	...	...	...	...	...	...	2	...	...	...	...
Gurnet ...	16	...	...	...	...	...	10	6	...	...	...	...
Haddock ...	4,259	60	...	...	...	...	714	210	...	...	...	...
Herring ...	20	13,246	...	...	...	...	12	1,397	140	...	...	...
Ling ...	141	272	...	...	...	...	...	3,405	...	...	...	...
Mackerel ...	...	...	34	...	...	...	...	...	1,270	...	...	...
Salmon ...	...	...	6	...	...	...	...	...	16	...	...	...
Trout ...	...	...	...	...	...	...	...	...	1	...	...	...
Black Jack...	53	12	...	...	...	...	...	8	...	...	...	...
Whiting ...	281	...	...	...	...	...	...	...	...	...	...	...
Hake ...	...	...	...	...	...	43	...	...	...	...	...	2
Halibut ...	15	63	2	...	...	...	6	109	15	...	...	...
Plaice ...	145	51	...	...	...	...	26	31	...	3	...	...
Skate ...	224	42	...	...	...	...	29	342	...	...	...	...
Sole ...	67	...	...	...	...	...	2	...	...	...	...	...
Turbot ...	...	...	...	...	...	102	...	...	...	...	...	...
Cat-fish ...	...	...	...	...	...	235	...	...	...	...	...	...
Monk-fish ...	151	6	...	...	...	4	3	4	...	...	...	7
Cockles ...	...	...	...	...	...	...	...	...	...	...	...	...
Mussels ...	...	...	...	...	...	...	...	...	...	...	609	...
Crabs ...	...	...	...	...	...	...	...	150	...	...	...	...
Lobsters ...	...	1	...	...	...	...	...	3	...	...	...	...
Crayfish ...	137	33	...	...	...	...	2	32	...	...	...	...
Winkles ...	...	...	...	...	...	...	...	204	...	...	...	...
Prawns ...	25	...	...	...	...	...	...	...	...	...	...	...
Findon Haddocks...	...	...	...	...	...	...	...	226	3,509	...	...	...
Kippers ...	...	...	...	...	...	...	...	...	10,416	...	...	...
Bloaters ...	...	...	...	...	...	...	780	...	7,600	...	...	...
Sprats ...	...	25	...	...	...	...	...	102	...	...	...	...
Oysters ...	...	4	...	...	...	...	...	10	...	...	...	...
Shark ...	...	...	...	...	...	...	...	...	...	...	...	1
Totals ...	6,085	14,286	42	...	...	384	1,590	6,524	22,967	3	616	10
Totals in previous year ...	10,151	9,789	59	1	165	642	591	5,911	27,890	258	350	3

Large and increasing importations of Fish continue to arrive from Norway. Less Fish has been found unfit for food than in former years, and no disease has been observed.

(Signed) WILLIAM T. CLARKE,

CHIEF INSPECTOR OF NUISANCES AND INSPECTOR OF FISH.

TABLE XIV.

INFECTED ARTICLES DESTROYED AND REPLACED BY THE HEALTH
DEPARTMENT DURING THE YEAR 1886.

148 Half Straw Mattresses. 25 Straw Beds. 3 „ Bolsters.	6 Bed Ticks. 7 Flock Beds.
INFECTED ARTICLES PURIFIED IN THE DISINFECTING APPARATUS.	
FROM THE CITY.	FROM THE FEVER HOSPITAL.
231 Feather Beds. 296 Flock „ 690 Mattresses. 1,080 Pillows. 427 Bolsters. 548 Blankets. 400 Rugs. 91 Counterpanes. 91 Bed and Window Curtains. 101 Cushions. 63 Hearth Rugs and Door Mats. 173 Carpets. 229 Books. 633 Articles of Wearing Apparel. 512 Miscellaneous Articles.	77 Beds. 45 Mattresses. 135 Pillows. 211 Bolsters. 37 Blankets. 30 Rugs. 29 Counterpanes. 914 Articles of Wearing Apparel. 4 Boxes of Nurses' and Servants' Clothing 287 Books.

TABLE XV.

SUMMARY OF CASES DISINFECTED BY THE HEALTH DEPARTMENT DURING
THE YEAR ENDED 31ST DECEMBER, 1886.

PARISH OR TOWNSHIP.	NATURE OF DISEASE.								
	Small- pox.	Scarlet Fever.	Diph- theria.	Typhus Fever.	Enteric Fever.	Simple Con- tinued Fever.	Puer- peral Fever.	Relaps- ing Fever.	TOTAL.
Elswick ...	2	215	26	...	82	18	6	...	349
Westgate ...	...	238	1	...	38	9	4	...	290
St. Andrew's ...	1	88	3	...	24	3	...	...	119
St. John's... ..	2	9	3	1	7	1	...	...	23
St. Nicholas'	...	15	2	...	4	2	1	...	24
All Saints'	...	183	10	...	25	4	...	...	222
Jesmond ...	...	24	3	...	3	...	...	...	30
Byker ...	...	221	23	...	21	4	3	2	274
Heaton ...	...	11	2	...	1	3	...	...	17
Total ...	5	1,004	73	1	205	44	14	2	1,348
Total Infected Households disinfected during the year									873

In addition to the above 52 inquiries have been made, and disinfection done at houses or rooms where deaths have occurred from Measles or Diarrhœa.

TABLE XVI.—NUISANCE REMOVAL.

SUMMARY OF NOTICES SERVED FOR NUISANCES DURING THE YEAR ENDED 31ST DECEMBER, 1886.

NATURE OF OFFENCE, OR REMEDY REQUIRED.	No. 1 DISTRICT.			No. 2 DISTRICT.			No. 3 DISTRICT.			No. 4 DISTRICT.			TOTAL.		
	Informal.*	Formal.	Total.	Informal.	Formal.	Total.	Informal.	Formal.	Total.	Informal.	Formal.	Total.	Informal.	Formal.	Total.
Rooms ordered to be closed, as being unfit for human habitation ...	2	24	26	...	3	3	...	10	10	...	3	3	2	40	42
Rooms cleaned and repaired ...	5	20	25	15	24	39	1	15	16	...	6	6	21	65	86
Overcrowding ...	2	24	26	...	16	16	...	...	...	...	...	...	2	30	32
Dilapidated yards and passages ...	37	89	126	13	44	57	8	31	39	1	13	14	59	177	236
Dirty yards, passages, staircases, etc.	98	351	449	24	101	125	6	180	186	...	31	31	128	663	791
Defective & badly-constructed drains & sinks, bath, lavatory, & cisternwastes connected to soil-pipes or drain ...	130	367	497	112	141	253	37	227	264	3	67	70	282	802	1,084
Water-closets choked and defective ...	55	194	249	57	127	184	22	111	133	1	10	11	135	442	577
New water-closets ...	11	59	70	16	15	31	1	51	52	1	108	109	29	233	262
Defective soil-pipes ...	5	4	9	11	2	13	5	21	26	...	...	...	21	27	48
Defective ash-closets ...	1	19	20	7	41	48	...	57	57	...	13	13	8	130	138
New ash-closets ...	2	1	3	9	10	19	...	4	4	...	11	11	11	26	37
New ash-boxes ...	12	160	172	19	7	26	2	52	54	...	...	...	33	219	252
Privies and ashpits defective ...	13	35	48	7	5	12	4	26	30	1	54	55	25	120	145
New privies and ashpits ...	...	...	...	1	1	2	...	...	...	...	3	3	1	4	5
Offensive accumulations, etc. ...	1	13	14	9	23	32	2	14	16	1	3	4	13	53	66
Swine and other animals kept ...	4	13	17	2	12	14	...	5	5	...	3	3	6	33	39
Defective water-spouts, causing damp in rooms ...	6	9	15	6	8	14	1	6	7	...	...	...	13	23	36
Water supply ...	10	72	82	6	27	33	...	33	33	...	28	28	16	160	176
Smoke nuisance ...	8	...	8	11	1	12	8	1	9	1	...	1	28	2	30
Other nuisances ...	5	16	21	9	7	16	1	4	5	1	...	1	16	27	43
TOTAL	407	1,470	1,877	334	615	949	98	848	946	10	353	363	849	3,276	4,125

* By "Informal Notice" is to be understood any communication made verbally or by letter. "Formal Notices" are those served under the Statutes.

During the past year 666 connections have been made with the common sewers.

It has not been found necessary to resort to Magisterial proceedings for enforcing the abatement of nuisance on any occasion during the year.

TABLE XVII.

1886.—RAINFALL, MEAN TEMPERATURE, ETC.*

1ST QUARTER.			2ND QUARTER.			3RD QUARTER.			4TH QUARTER.		
Week ended.	Rainfall. Inches.	Mean Temp. Deg. Fahr.	Week ended.	Rainfall. Inches.	Mean Temp. Deg. Fahr.	Week ended.	Rainfall. Inches.	Mean Temp. Deg. Fahr.	Week ended.	Rainfall. Inches.	Mean Temp. Deg. Fahr.
Jan. 9...	0.13	32.8	April 10...	0.32	43.8	July 10...	0.06	58.3	Oct. 9...	0.72	55.3
" 16...	0.28	36.1	" 17...	0.32	44.3	" 17...	0.96	57.3	" 16...	1.19	51.2
" 23...	0.83	31.8	" 24...	0.55	42.8	" 24...	0.50	63.7	" 23...	0.72	49.2
" 30...	1.52	35.5	May 1...	0.10	44.1	" 31...	1.97	54.2	" 30...	0.98	49.8
Feb. 6...	0.01	32.5	" 8...	0.15	54.0	Aug. 7...	0.81	56.5	Nov. 6...	1.64	46.8
" 13...	0.07	39.6	" 15...	0.77	43.5	" 14...	0.36	58.3	" 13...	1.84	43.5
" 20...	0.20	35.1	" 22...	0.40	50.0	" 21...	1.08	58.3	" 20...	0.14	44.5
" 27...	0.38	32.3	" 29...	0.85	50.0	" 28...	0.00	61.7	" 27...	0.04	44.2
March 6...	0.56	32.5	June 5...	1.08	47.8	Sept. 4...	0.00	63.2	Dec. 4...	0.22	35.8
" 13...	0.20	30.3	" 12...	0.01	54.3	" 11...	1.07	58.2	" 11...	0.64	38.5
" 20...	1.02	35.8	" 19...	0.14	52.3	" 18...	0.11	52.8	" 18...	1.92	33.8
" 27...	0.33	49.0	" 26...	0.04	55.0	" 25...	0.07	51.2	" 25...	0.38	33.0
April 3...	0.12	44.8	July 3...	0.00	62.3	Oct. 2...	1.45	55.7	Jan. 1, '87	0.04	33.8
TOTAL...	5.65	Mean 36.0	TOTAL...	4.73	Mean 49.6	TOTAL...	8.44	Mean 57.6	TOTAL...	10.47	Mean 43.0

Total Rainfall during the Year 1886 = 29.29 inches.

Mean Temperature during the Year 1886 = 46.56 deg. Fahr.

* Supplied by the courtesy of Mr. William Lyall, Librarian, Literary and Philosophical Society.

HEAVY RAINFALL IN NOVEMBER.

(Extract from Letter of Mr. George Smith, Secretary of the Newcastle and Gateshead Water Company, published in the "Newcastle Daily Chronicle" of 9th November, 1886.)

"The quantity of rain which fell on the gathering grounds of the Newcastle and Gateshead Water Company from mid-day on Friday until early on Sunday morning (say 36 hours) was three inches, equal to about 1,520,000,000 gallons, and 130 days' full supply. The weight of this quantity is about seven million tons. At my house at Gosforth the rain gauges showed 3.20 in. for the same period."