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**Contributors**

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BOROUGH OF  SUNDERLAND.

# REPORT

ON THE

HEALTH AND SANITARY CONDITION  
OF THE BOROUGH,

For the Year 1879,

BY

HENRY J. YELD, M.D., F.C.S.,

MEDICAL OFFICER OF HEALTH AND BOROUGH ANALYST,

PHYSICIAN TO THE CORPORATION FEVER HOSPITAL  
AND HOUSE OF RECOVERY.

Sunderland:

JOSEPH HUNTLEY, PRINTER, 18, NILE STREET.

1880.

REPORT

HEALTH AND SANITARY CONDITION  
OF THE BOYD

FOR THE YEAR 1879

HENRY J. YELD, M.D.

PHYSICIAN TO THE CORPORATION

AND HOUSE OF REPRESENTATIVES

BOROUGH OF SUNDERLAND.

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HEALTH COMMITTEE.

---

Chairman :

ALDERMAN STOREY.

Vice-Chairman :

COUNCILLOR RICKABY.

ALDERMAN BARKER.

„ PRESTON.

COUNCILLOR ARMITAGE.

„ BELL.

„ BRUCE.

„ CAMERON, R.

„ COATES.

„ CROSSBY.

„ HARRALD.

„ HIRST.

„ KIDSON.

COUNCILLOR LAWSON.

„ NEWBY.

„ REED, T. Jun.

„ RICHARDSON. E.

„ RICHARDSON, S.

„ RUDLAND.

„ SMITH.

„ STILES.

„ THOMPSON.

„ WIENER.

„ WRIGHTSON.

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Meetings every alternate Thursday, at Seven p.m.



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**TABLE OF DEATHS in the Urban Sanitary District of Sunderland, classified according to Diseases and Ages; and showing also the Population and BIRTHS therein during the Year ending December 27th, 1879.**

DISTRICTS.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES, AT SUBJOINED AGES.							MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF PERSONS UNDER FIVE YEARS OF AGE.																				
	Census, 1871.	Estimated to middle of 1879.		At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwards.	Smallpox.	Measles.	Scarlatina.	Diphtheria.	Croup (not spasmodic.) Whooping Cough.	Continued Fevers.		Typhus.	Typhoid.	Other or Doubtful.	Diarrhoea and Dysentery.	Cholera.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	Ague.	Phthisis.	Bronchitis, Pneumonia, and Pleurisy.	Heart Disease.	Injuries.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.	31.	32.
SUNDERLAND EAST .....	..	10,560	333	207	55	32	8	11	51	50	Under 5	..	..	6	..	..	1	..	..	..	5	..	..	..	..	..	..	1	18	..	3
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5 upwds.	..	..	3	..	..	2	..	1	..	..	..	..	..	..	..	..	15	22	8	4
SUNDERLAND WEST .....	..	8,436	242	174	54	35	7	7	43	28	Under 5	..	..	7	1	1	..	..	..	8	..	..	..	..	..	..	..	1	25	..	..
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5 upwds.	..	..	1	..	..	2	..	..	..	..	..	..	..	..	..	..	13	20	10	6
BISHOPWEARMOUTH NORTH..	..	31,500	1457	628	161	145	54	23	134	111	Under 5	..	1	44	3	3	17	..	1	..	14	..	..	1	..	..	..	4	51	1	..
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5 upwds.	..	..	19	1	1	2	4	2	4	..	..	..	..	3	..	56	31	42	12	
BISHOPWEARMOUTH SOUTH..	..	35,000	1407	750	171	160	70	40	148	161	Under 5	..	..	70	2	5	13	..	..	16	..	..	1	..	..	..	1	34	..	..	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5 upwds.	..	..	46	1	..	2	..	4	2	4	..	..	1	..	2	..	53	58	45	13
MONKWEARMOUTH .....	..	29,079	1047	537	152	124	32	30	109	90	Under 5	..	..	28	2	4	11	..	2	1	11	..	..	1	..	..	..	5	46	2	8
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5 upwds.	..	..	17	..	..	..	6	..	6	..	..	1	..	2	..	50	29	27	9	
Public Institutions.																															
THE WORKHOUSE .....	..	..	..	168	6	7	7	7	62	79	Under 5	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5 upwds.	..	..	..	..	..	..	1	..	3	..	..	..	..	..	..	..	18	44	3	2
CORPORATION HOSPITAL..	..	..	..	1	..	..	..	1	..	..	Under 5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5 upwds.	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
CHILDREN'S HOSPITAL....	..	..	..	2	..	1	1	..	..	..	Under 5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5 upwds.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
INFIRMARY .....	..	..	..	40	..	1	3	6	23	7	Under 5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5 upwds.	..	..	..	..	..	..	3	..	1	..	..	..	..	..	..	2	1	..	20	
Totals .....	.....	.....	4486	2507	599	505	182	125	570	526	Under 5	..	1	157	8	13	42	..	3	1	54	..	..	3	..	..	12	175	3	12	
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5 upwds.	..	..	86	2	1	2	4	20	5	19	..	..	2	..	7	207	205	135	66	

Birth Rate = 39·2 per 1,000.

Death Rate = 21·8 per 1,000.



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TABLE OF MORTALITY AND SICKNESS IN THE URBAN SANITARY DISTRICT OF SUNDERLAND DURING THE YEAR 1879.

NAME OF DISEASE.	Deaths (among all classes) registered as having occurred in the District or Division.				Sickness and Deaths among Paupers.				IN-PATIENTS.				OUT-PATIENTS.†	
	Total Deaths registered as above; including those entered in columns IV. and V.		Deaths of Persons who have come into the District or Division with their fatal illness upon them.		Sickness and Deaths among Out-door Paupers; and among any Paupers who belong to the District or Division, and have been removed into the Workhouse on account of illness; whether the Workhouse be within or without the District or Division.				Sickness and Deaths in such Institutions among inmates who belong to the District or Division.				New cases of Sickness among persons who belong to the District or Division, and are Out-patients of Hospitals or patients of Dispensaries.†	
					New Cases.		Deaths.		New Cases.		Deaths.			
	Aged under 5 years.	Aged 5 years and upwards.	Aged under 5 years.	Aged 5 years and upwards.	Aged under 5 years.	Aged 5 years and upwards.	Aged under 5 years.	Aged 5 years and upwards.	Aged under 5 years.	Aged 5 years and upwards.	Aged under 5 years.	Aged 5 years and upwards.	Aged under 5 years.	Aged 5 years and upwards.
I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.	XIV.	XV.
Small-Pox .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles .. .. .	1	..	..	..	10	6	..	..	..	..	..	..	146	37
Scarlatina .. .. .	157	86	..	..	19	50	6	3	..	4	..	..	36	40
Diphtheria .. .. .	8	2	..	..	3	..	2	..	..	..	..	..	..	..
Croup (not spasmodic) .. .. .	13	1	..	..	..	..	..	..	..	..	..	..	..	..
Whooping Cough .. .. .	42	2	..	..	7	7	4	..	..	..	..	..	249	50
"Continued" Fevers. {	Typhus .. .. .	..	4	..	2	18	..	..	..	..	..	..	2	4
	Enteric .. .. .	3	20	..	..	16	..	1	..	5	..	3	12	27
	Of other or doubtful sorts .. .. .	1	5	..	3	8	..	..	..	..	..	..	70	44
Diarrhoea and Dysentery .. .. .	54	19	..	..	30	78	..	6	..	4	..	2	521	80
Cholera .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rheumatic Fever .. .. .	..	..	..	..	..	6	..	..	..	9	..	..	..	1
Erysipelas .. .. .	3	2	..	..	..	15	..	2	..	3	..	..	..	5
Pyæmia .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever .. .. .	..	7	..	..	..	2	..	1	..	..	..	..	..	..
Ague .. .. .	..	..	..	..	..	1	..	..	..	3	..	..	..	..
Phthisis .. .. .	12	207	..	..	21	97	3	34	1	21	..	2	1	22
Bronchitis, Pneumonia, and Pleurisy .. .. .	175	205	..	..	271	847	16	68	1	27	..	1	354	150
Heart Disease .. .. .	3	135	..	..	..	64	..	25	..	7	..	..	1	21
Injuries .. .. .	2	66	..	..	13	98	..	..	6	218	..	12	36	226
Diseases not named above ..	620	642	..	..	214	1812	30	115	16	364	..	16	819	2678
Total .. .. .	1104	1403	..	..	593	3125	61	255	24	665	..	36	2247	3385

†The Sunderland Provident Dispensary not included.

# TABLE OF MORTALITY AND CAUSES OF DEATH

Year		Age		Sex		Cause of Death		Rate per 1,000	
1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
Total									
Male									
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Infants									
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## REPORT, 1879.

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**I**N accordance with the instructions of the Local Government Board, I beg to submit, for the information of the Board, and for the consideration of the Urban Sanitary Authority, my SIXTH Annual Report on the Health and Sanitary condition of the Borough.

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During the fifty-two weeks ending December 27th, 1879, **BIRTHS AND DEATHS.**  
4,486 Births and 2,507 Deaths were registered within the Borough, showing an increase of Births over Deaths, 1,979. —  
The Births represent an annual rate of 40·0 per 1,000, and the Deaths of 21·8 per 1,000, of the estimated population. The Birth-rate showed a decline of 1·3 per 1,000 as compared with the previous year, whilst the Death-rate also showed a satisfactory decline of 3·7 per 1,000.

Of the 4,486 Births registered, 2,244 were Males, and 2,242 were Females—the proportion of the sexes, curiously enough, being almost equal. The Birth-rate of 40·0 per 1,000 was the lowest rate recorded during the last 6 years. **BIRTHS.** —

In the four Registration Districts which comprise the Borough, the Birth-rate was highest in North and South Bishopwearmouth Districts, being 46·2 and 40·2 per 1,000 respectively, whilst in Monkwearmouth it was 36·1 per 1,000, and in Sunderland Parish only 30·4 per 1,000.

The greatest number of Births were registered in the first and third quarters of the year, namely, 1,190 and 1,162; whilst the lowest number were registered in the second quarter—1,103 of which 552 were Males and 551 were Females.



**REPORT.** The total number of Deaths registered during the year was 2,507, of which number 1,264 were Males and 1,243 were Females, and representing a Death-rate of 21·8 per 1,000, as compared with Death-rates of 25·5, 22·7, 23·6, 20·8, and 22·5 per 1,000 in the five previous years.

**DEATHS.**

**Age at Death.** Of the 2,507 Deaths, 1,104 were those of children under five years of age, of which number 599 were under a year old. 182 Deaths occurred between the ages of 5 and 15; 125 between 15 and 25 years of age; 570 between 25 and 60 years of age; and 526 above the age of 60, namely, 233 between 60 and 70; 209 between 70 and 80; 77 between 80 and 90; and 7 between 90 and 100 years old.

The mortality of persons aged 60 years and upwards, showed an increase of 64 as compared with the previous year; whilst the Infant Mortality showed a decrease of 433 as compared with that of 1878.

The number of Deaths registered in each week during the year ranged from 30 in the week ending July 19th, to 71 in the week ending April 6th.

The average age at death of children under 5 years of age was 13 months.

The average age at death of persons aged 5 years and upwards was  $46\frac{1}{2}$  years.

**Mortality in Registration Districts.** In Sunderland District, where the population is very dense, and the property principally tenemented and occupied by the poorest of the poor, the mortality was exceptionally low—the Death-rate being only 20·0 per 1,000: the lowest rate ever recorded in that portion of the Borough; unmistakeable evidence of the good effect of the carrying out of the Town Improvement Act of 1866—Sunderland Parish being at that time, as it had been for many years, the hot-bed of Typhus Fever, and other Zymotic Diseases. During 1879, only 2 Deaths from Typhus occurred, and both in the first quarter of the year.

In North Bishopwearmouth District, the number of Deaths registered, exclusive of those which took place in the Corporation Fever Hospital, Children's Hospital, and Workhouse Hospital, (all of which are situated in this District), was 628, and representing a Death-rate of 20·0 per 1,000, as against a rate of 23·5 per 1,000 in 1878.

During the year, 168 Deaths were registered as having occurred in the Workhouse Hospitals, 1 in the Corporation Hospital, and 2 in the Children's Hospital, making a total of 171 Deaths, which increased the Death-rate of the District to 25·3 per 1,000. The Deaths in the Workhouse, which, during the five previous years, had averaged 139, rose last year to 168.

In Bishopwearmouth South District, the Deaths, exclusive of those which occurred in the Infirmary, numbered 750, representing a Death-rate of 21·4 per 1,000 as compared with a rate of 22·0 per 1,000 in the previous year.

The Deaths in the Infirmary, which, in the two previous years, numbered 46, fell to 40, and increased the Death-rate of the District to 22·5 per 1,000, as against 23·4 in 1878.

In Monkwearmouth, 537 Deaths were registered during the year, representing a Death-rate of 18·5 per 1,000, as against Death-rates of 22·0 and 20·5 per 1,000 in the years 1877 and 1878.

### *Zymotic Diseases.*

The following Deaths were registered during the year from **ZYMOTIC** the principal forms of Zymotic Diseases, viz.:—Typhus Fever, **DISEASES.** 4; Typhoid, 23; Scarlet Fever, 243; Diarrhœa, 73; Whooping Cough, 44; Diphtheria, 10; and Measles, 1—making a total of 398, and representing a Death-rate from this class of Disease of 3·4 per 1,000, as compared with a rate of 6·4 in the previous year.



# DEATHS FROM ZYMOTIC DISEASES.

	Sunderland— Population, 18,996				South Bp. wearmouth. Population, 35,000				North Bp. wearmouth. Population, 31,500				Monkwearmouth, Population, 29,079				Whole Borough, 114,575.	
	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Totals.	Rate per 1,000.
Small Pox .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Typhus .....	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	..
Typhoid .....	1	1	..	..	1	..	1	5	2	1	1	1	2	4	1	1	23	20
Scarlatina .....	10	5	..	2	30	21	19	46	13	17	19	16	18	5	11	11	243	21
Measles.....	..	..	..	..	..	..	..	..	..	1	1	..	..	2	..	..	1	38
Whooping Cough .....	1	..	..	..	4	3	3	5	4	4	7	2	1	2	..	8	44	..
Diphtheria .....	1	..	..	..	1	1	1	..	3	1	1	..	1	1	1	..	10	08
Diarrhoea .....	1	6	4	2	1	4	9	7	4	3	11	4	6	1	8	2	73	64
	16	12	4	4	37	29	33	63	27	28	38	24	28	13	20	22	398	
Totals .....	36				162				117				83					
Rate per 1,000 .....	1.9				4.6				3.8				2.8					3.4

In Sunderland Parish, which, as previously stated, is densely populated, 36 Deaths only occurred from Zymotic Diseases, representing a Death-rate of 1·9 per 1,000, and being the lowest rate registered in any of the Registration Districts.

**REPORT.**

—  
**Zymotic Diseases.**

Monkwearmouth had a higher Death-rate from this class of disease, viz., 2·8 per 1,000.

In North and South Bishopwearmouth Districts, the rates were 4·6 and 3·8 per 1,000 respectively ; these high rates being entirely due to the fatal prevalence of Scarlet Fever in these Districts.

Four Deaths from Typhus, and 23 from Typhoid, or Enteric Typhus and Typhoid Fever, were registered during the year, making a total of 27, being the lowest number of Deaths from Fever recorded in the Borough. During the past nine years the Deaths have been as follows :—

1871—221 Deaths.	1874—53 Deaths.	1877—61 Deaths.
1872—106   ,,	1875—42   ,,	1878—53   ,,
1873— 53   ,,	1876—53   ,,	1879—27   ,,

Of the four Deaths from Typhus Fever, 2 occurred in Sunderland East, and 2 in Bishopwearmouth North Districts.

Of the 23 Deaths from Enteric or Typhoid Fever, 2 occurred in Sunderland West District ; 5 in North Bishopwearmouth ; 4 in South Bishopwearmouth ; and 8 in Monkwearmouth.

In all these cases careful enquiry was made into the pre-disposing and existing causes of the disease, and where any sanitary defects were found to exist, immediate steps were taken to remedy the same.

Measles, which was fatally prevalent in the Borough during Measles. the latter six months of 1878, when it caused no less than 93 Deaths, only caused 1 Death in 1879, viz., on the 7th of June, at 14, John Street, Ayre's Quay, Bishopwearmouth.



- REPORT.** Scarlet Fever was fatally prevalent during the whole of the year, causing no less than 243 Deaths; 36 of which took place in Sunderland Parish, 83 in Monkwearmouth, 117 in Bishopwearmouth North, and 162 in Bishopwearmouth South. Reference will be made to this disease in my remarks on the Infant Mortality of the Borough.
- Scarlet Fever.**
- Whooping Cough.** 44 Deaths only were registered as arising from Whooping Cough, as against 175 in the previous year. The disease was most fatal in North and South Bishopwearmouth Districts, Sunderland Parish being exceptionally free from this disease during the year, only one death having occurred in that District.
- Diphtheria.** The Deaths from Diphtheria numbered 10, 7 of which occurred in North and South Bishopwearmouth Districts, where Scarlet Fever was most prevalent.
- Diarrhœa.** The Deaths from Diarrhœa only numbered 73, as against 204 in the previous year, and proportionately to population, were pretty equally distributed amongst the several districts.
- Smallpox.** No case of Death from Smallpox occurred in the Borough during the year.

### *Local Diseases.*

**Disease of the Lungs.** Of the 2,507 Deaths, 423 were referred to various Diseases of the Lungs, of which number 380 were caused by Bronchitis, Pneumonia, and Pleurisy. 16 Deaths were referred to the last-named Disease, being the largest number ever registered from that cause; and curiously enough 12 out of the 16 occurred in South Bishopwearmouth District, 11 of which were certified by the same Medical Man, 10 out of the 11 being deaths of children under 2 years of age.

Of the 380 Deaths above-mentioned, 175 were those of children under 5 years of age; 99 were those of persons between the ages of 5 and 60, and 106 were those of persons aged 60 years and upwards.

Of the 168 Deaths which occurred in the Workhouse, 45 were referred to Bronchitis and Pneumonia, and principally amongst aged persons.

In Sunderland Parish, of the total 381 Deaths, 85, or rather more than 22 per cent., were referred to Bronchitis and Pneumonia; in North Bishopwearmouth a little more than 10 per cent.; in Bishopwearmouth South, 12 per cent.; and in Monkwearmouth, 14 per cent. This difference in the percentage of deaths in the several districts will be readily understood when the situation of localities, and the condition and habits of the people residing therein, are taken into consideration.

## REPORT.

Consumption was returned as the cause of 219 Deaths, of which 110 were Males and 109 were Females. This disease was most fatal in Bishopwearmouth North and Monkwearmouth Districts. Of the 219 Deaths, 14 were those of children under 5 years of age—6 of whom died in Monkwearmouth, and 5 in Bishopwearmouth North; 13 died between the ages of 5 and 15; 54 between the ages of 15 and 25; 24 between 25 and 30 years of age; 52 between 30 and 40; 36 between 40 and 50; 13 between 50 and 60; and the same number aged 60 years and upwards.

The Deaths from Heart Disease during the year numbered 138, of which number 72 were those of Males, and 66 were those of Females. This disease was most fatal between the ages of 60 and 70 years, between which ages 39 persons died, whilst 4 of the Deaths were those of children under 5 years of age.

From the various Diseases of the Brain and Nervous System, 383 Deaths were registered, of which 197 were Males and 186 were Females. 184 of the 383 Deaths were those of children under 5 years of age, of which number again 136 died from Convulsions. The principal causes of death in this class were Convulsions, which caused 140 Deaths; Paralysis, which caused 101; Inflammation of the Brain and its Membranes, which caused 58; and Apoplexy, which caused 46 Deaths.

The Mortality was greatest in Bishopwearmouth North District, in which the Workhouse is situated, and in which Institution the majority of the deaths from Paralysis took place and lowest in Sunderland and Monkwearmouth Districts.



**REPORT.** To Diseases of the Digestive Organs, 163 Deaths were attributed, namely, 82 Males and 81 Females. The principal organ attacked was the Liver—39 Deaths being referred to Diseases of the Liver, and 15 to Cirrhosis of the Liver: a Disease brought on by Intemperance; the Deaths from this Disease during the last 5 years have averaged 15 annually. 10 Deaths were referred to Jaundice, 6 of which were those of Infants. There were 2 Deaths only during the year in which Intemperance was returned as the primary cause of death.

**Uncertified causes of Death** In the last two quarterly reports of the Registrar General, rather severe remarks were made with reference to the large number of uncertified deaths registered in this Borough. In the report for the quarter ending September, the following appears:

“The recent rapid increase of the proportion of uncertified causes of death in Sunderland, especially calls for notice. During 1878, the proportion did not exceed 4·1 per cent., whereas it has been successively in the first three quarters of the year 7·4, 7·1, and 9·0 per cent. Whether this excessive proportion be due to unqualified practice, or to the neglect to provide medical attendance by parents and other relations of the deceased, its effect upon the national death register is most deleterious; and in the interests of Society and of Public Health, should be investigated by the Medical Officer of Health.”

As from my own personal knowledge, there was only one unqualified practitioner in the town, and he had only given one certificate of death; I was naturally somewhat surprised to find such a statement as the one quoted, but upon enquiry I found that the certificates given by Mr. John Rankine, of Ward Terrace, had been entered and returned as uncertified, although Mr. Rankine had been registered as a duly qualified Medical Practitioner on the 9th of January, that is eight days after the Medical Register was published. It appears to me only fair and reasonable that after a Medical Man had paid his fees for registration, that the fact of his being registered should be communicated to the Registrar General by the Registrar of the General Medical Council, so that the former could have informed the Superintendent Registrar of this District of the fact of his being so registered, and that his certificates must be received; on the other hand, Mr. Rankine might have shown his certificate of registration

to the Local Registrars, and thus placed himself in a proper position as regarded the acceptance of his certificates. Neither of these courses having been taken, the result was that Sunderland, for the time at least, enjoyed the unenviable notoriety of having the largest percentage of uncertified deaths of any of the twenty large towns; and the inference was drawn that in some way or other the Medical Officer of Health was to blame for allowing such a state of things to exist. The explanation now given will, however, no doubt, be a sufficient answer to such an insinuation.

REPORT.  
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### *Infant Mortality.*

Of the 2,507 Deaths registered within the Borough during the year, 1,104 were those of children under 5 years of age; 558 of which were Males and 546 were Females. Of that number 599, viz., 297 Males and 302 Females, were under a year old.

Notwithstanding the excessive mortality from Scarlet Fever, the Infant Mortality was the lowest on record. The Deaths being at the rate of 9·6 per 1,000 of the population, and forming 44 per cent. of the total deaths.

In the year 1878 the Infant Mortality was equal to a Death-rate of 13·7 per 1,000 of the population, and formed 54 per cent. of the total mortality of the Borough.

The Infant Mortality for the last 5 years was as follows:—

Years.	Total Deaths.	Deaths under 5 years of age.	Rate per 1,000 of Population.	Percentage of Total Deaths
1875	... 2385	... 1163	... 10·9	... 50·0
1876	... 2262	... 1101	... 10·1	... 49·0
1877	... 2487	... 1080	... 9·8	... 45·0
1878	... 2864	... 1537	... 13·7	... 53·0
1879	... 2507	... 1104	... 9·6	... 44·0



**REPORT.**

The Infant Mortality was lowest in Sunderland Parish, the Death-rate being 9·2 per 1,000 of the population. It must be borne in mind, however, that in this District the Birth-rate was also the lowest, viz., 30·4 per 1,000; on the other hand, in Bishopwearmouth North District, when the Birth-rate was highest, viz., 46·2, the Infant Mortality was also the highest, the Death-rate being 10· per 1,000; showing a close connection between the high Birth-rate and a correspondingly heavy Death-rate amongst children.

In proportion to the total number of Deaths, Monkwearmouth showed the heaviest mortality amongst children—the Death-rate being 9·5 per 1,000 of the population, and the deaths of children forming 51 per cent. of the total mortality; whereas in Bishopwearmouth North, when the mortality was at the rate of 10 per 1,000 of the population, the deaths of infants formed only 4·0 per cent. of the total deaths in the district.

The heaviest mortality was in the Monkwearmouth Colliery District, which in some parts is very densely populated. For instance, on the North side of Richmond Street there are 15 houses, containing 101 rooms, occupied by 211 persons, and on the South side of Brooke Street (these two streets being back to back, with an 18 feet back street between), there are 27 houses, containing 143 rooms, occupied by 283 persons, making a total of nearly 500 persons living in this limited area. It can readily be understood, then, how such conditions are inimical to Infant life.

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(For Table as to Infant Mortality, see next page.)

# INFANT MORTALITY.

CAUSE OF DEATH.	Sunderland. Population, 18,996.		North Bishopwearmouth. Population, 31,500.		South Bishopwearmouth. Population, 35,000.		Monkwearmouth. Population, 29,079.		Whole Borough. Population, 114,575.
	Under 1	1 to 5	Under 1	1 to 5	Under 1	1 to 5	Under 1	1 to 5	
Small Pox .....	..	..	..	..	..	..	..	..	..
Typhus .....	..	..	..	..	..	..	..	..	..
Typhoid Fever .....	..	..	1	..	..	..	..	2	3
Scarlatina .....	..	13	2	44	5	65	1	27	157
Measles .....	..	..	..	1	..	..	..	..	1
Whooping Cough .....	..	1	8	9	3	10	1	10	42
Diphtheria .....	..	1	..	3	..	2	1	1	8
Diarrhoea .....	8	5	8	6	13	3	7	4	54
Croup .....	..	1	1	2	..	5	..	4	13
Bronchitis .....	19	10	13	13	4	10	12	7	88
Broncho Pneumonia .....	..	..	4	..	..	1	3	4	12
Pneumonia .....	7	6	6	15	8	2	11	10	65
Pleurisy .....	..	1	1	..	6	3	..	..	11
Congestion of Lungs .....	1	..	2	4	..	..	1	..	8
Pthisis .....	..	2	3	2	..	1	1	5	14
Heart Disease .....	..	..	1	..	..	..	2	1	4
Convulsions .....	14	2	26	14	39	15	23	3	136
Debility .....	20	1	14	..	30	1	19	..	85
Meningitis .....	2	5	1	2	4	15	2	7	38
Marasmus Atrophy .....	5	3	30	9	10	3	18	10	88
Premature Birth .....	11	..	18	..	24	..	19	..	72
Violence .....	1	1	..	..	..	1	..	3	6
Apoplexy .....	..	..	..	..	..	..	..	..	..
Paralysis .....	..	..	..	..	1	..	..	..	1
Liver Disease .....	..	..	..	..	..	..	..	..	..
Cancer .....	..	..	..	..	..	..	..	..	..
Other causes not set out ..	22	15	29	30	19	23	34	26	198
Total .....	110	67	168	154	166	160	155	124	1104
	177		322		326		279		



**REPORT.**

In Bishopwearmouth South District, which comprises within its area the best parts of the town, the Infant Mortality was at the rate of 9·4 per 1,000 of the population, and formed 42 per cent. of the total mortality of the district.

The diseases most fatal to Infant life during the year were Scarlet Fever, Diseases of the Lungs, and Diseases of the Brain.

**Scarlet Fever.**

Scarlet Fever proved fatal in 157 cases, of which 149 were those of children between 1 and 5 years of age, and 8 only were those of Infants under a year old.

This disease, which is always more or less prevalent in all large towns, was least fatal and prevalent in Sunderland Parish and Monkwearmouth, both of which districts, however, had suffered pretty severely from the disease in the previous year. In Bishopwearmouth North and South the disease was fatally prevalent during the whole of the year, and the type of the disease in many cases was of a very malignant character. A considerable number of children died from one of the sequel of Scarlet Fever, viz., Dropsy—produced by Desquamative Inflammation of the Kidneys, brought on by the early exposure to cold and inclement weather; no doubt the slight mortality amongst Infants was in a great measure due to the fact of their helplessness, and its consequent more careful nursing and attention during convalescence.

**Measles.**

Only 1 Death from Measles was registered, and that in Bishopwearmouth North in the 2nd quarter of the year, at 14, John Street, Ayre's Quay; whereas in 1878 no less than 93 Deaths were registered; and curiously enough in the preceding year, viz., 1877, again only 1 Death was registered, and that in Bishopwearmouth South District.

**Whooping Cough.**

Whooping Cough was fatal in 42 instances only, as compared with 170 fatal cases in the preceding year. The disease was most fatal in North and South Bishopwearmouth and Monkwearmouth, whereas in Sunderland Parish only 1 death was registered.

The Deaths from Diarrhoea, which in 1878 numbered no less than 175, in 1879 only numbered 54, of which number 36 were those of Infants under a year old, 26 of whom had been fed by means of the bottle.

REPORT.  
—  
Diarrhoea.

The total Deaths from Diarrhoea at all ages were 12, 14, 32, and 15 respectively in each of the four quarters of the year; so that it will be observed that the mortality was twice as great in the Autumn quarter as in either of the other three, caused by the increased temperature of the atmosphere, and other varying meteorological conditions, combined with negligent and improper feeding.

The following shows the influence of climate as it affected the fatality attending Summer and Autumn Diarrhoea during the third quarter of the last 5 years:—

Year.	Mean Temperature of Air.	Daily range of Temperature	Rainfall.	Deaths under 5 Years.	Total Deaths.
	°	°	°		
1875 ...	61·06 F.	... 17·5 F.	... 10·24	... 70	... 88
1876 ...	60·05 „	... 16·2 „	... 7·78	... 86	... 109
1877 ...	58·40 „	... 12·5 „	... 9·76	... 49	... 62
1878 ...	62·00 „	... 14·4 „	... 6·43	... 140	... 156
1879 ...	58·00 „	... 14·2 „	... 8·20	... 28	... 32

Apart from the influence of climate, there can be no doubt that the systematic cleansing of the town has had considerable influence in reducing the number of cases of sickness and deaths from the disease now under consideration; and if parents were more careful and considerate in administering food to young children, and would take care that the food given was sweet and wholesome, and that the vessels in which it was placed were free from all offensive taint and perfectly clean, the mortality amongst young children would be materially diminished.



## REPORT.

Diseases of the Lungs were the most fatal of the local diseases, 184 Deaths having been registered, 98 of which were those of Infants under a year old. This mortality, in proportion to population, was heaviest in Sunderland Parish, which is not to be wondered at when the character of the population and the half-clothed condition of hundreds of the poor children are taken into consideration. Still, the number of deaths was less by 13 than in the previous year.

Convulsions was returned as the cause of death in 136 instances, 16 of which occurred in Sunderland Parish; 26 in Monkwearmouth; 40 in Bishopwearmouth North; and 54 in Bishopwearmouth South, Districts. The disease was most fatal during the early months of Infancy.

The mortality from Atrophy and Marasmus, the wasting diseases of infancy, showed a marked diminution as compared with the previous year, 88 deaths only having been registered from these causes as against 146 in the year 1878. It is to be hoped that this fact is an indication that parents are taking more care than formerly in the feeding of their children.

Debility, or constitutional weakness, was ascribed as the cause of death in 85 cases; all of which, with 2 exceptions, were those of children a few weeks old, whilst premature birth was fatal in 72 instances.

It is satisfactory to find that the Deaths of 6 children only were attributed to violence, as compared with 23 in the previous year. Of the 6 deaths, three were from actual violence; 2 from Burns; and 1 from Drowning.

From a perusal of the Infant Mortality Table, and comparing it with those of previous years, there appears to be some manifest improvement in the manner in which the little ones of our town are looked after and cared for. There is still, however, much to be done practically in the way of preventing the spread of infectious disease, and which, probably, time alone and education will bring about.

## Action taken during the Year for preventing the spread of Disease.

REPORT.

During the year the following cases were removed to the Corporation Hospital and Union Fever Hospital, viz., Fevers, 29; Scarlet Fever, 30; Diarrhœa, 26; Erysipelas, 5; making a total of 90; of which number 19 were under treatment in the former, and 71 in the latter Institution.

In all cases where the disease reported was of an infectious or contagious character, the premises in which the disease had appeared were visited by the Sanitary Inspectors and myself. During the year, 947 cases were visited, as against 1657 in the previous year. The cases reported were as follows:—Typhus Fever, 26; Enteric Fever, 39; Simple Fever, 25; Scarlet Fever, 673; Measles, 2; Diphtheria, 11; Whooping Cough, 93; Croup, 12; and Diarrhœa, 66. The diminution in the number of cases as compared with the previous year was as follows:—Fever, 73; Measles, 318; Whooping Cough, 244; Diarrhœa, 141; Croup, 5; and Diphtheria, 9. On the other hand, the number of cases of Scarlet Fever reported showed an increase of 82.

As has been frequently stated in my previous reports, the want of early information of the outbreak of an infectious disease prevents that action being taken which is so necessary to check the further progress of the disease, viz., the removal and isolation of the patient. There can be no doubt, whatever, that Scarlet Fever, which is at all times more or less prevalent in most of our large and densely populated towns, would be soon stamped out if the first cases could be removed to Hospital, or thoroughly isolated at home; but the difficulties connected with the removal of young children are numerous and almost insurmountable on account of their age and other personal considerations; besides, parents have a natural aversion to their children being removed from their own charge, and will run almost any amount of risk to the other members of their family rather than consent to have one removed; and isolation, in the true meaning of the term



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cannot well be carried out at home, more particularly in the homes of the working classes, who, as a rule, do not occupy houses of such a character as to enable them to set one room apart exclusively as an hospital; and in towns like our own, where there is much tenemented property, and in which infectious disease is most likely to make its appearance, the chances of preventing its spread are very slight indeed, unless the first case be at once reported and immediately removed. The Scarlet Fever Epidemic of last year principally attacked the children of the better class Artizans, whose houses, in numberless instances, were faultless as regards their cleanliness and sanitary condition, and the vast majority of cases were clearly traceable to contagion and infection. The infectious nature of this disease has from time to time been brought prominently before the public, and every means has been taken, as far as practicable, to arrest its progress, by visiting and advising the friends of the patients, the issuing of instructions, and by the disinfection of clothing and bedding; but in spite of all these, great carelessness and thoughtlessness is still shown by parents and guardians in visiting, and allowing their children to visit, houses in which the disease is known to exist. Children are allowed to return to school in the early stages of convalescence, and to frequent places of public resort and amusement.

Many children who had but suffered from a mild attack of the disease were allowed to leave their rooms too soon, and subsequently died from Kidney Disease and Dropsy. One would have thought that the terrible fatality caused by this disease would have put parents and others on their guard in these several respects; it does not seem, however, to have done so. To some persons the death of a child seems a matter of little moment, and the carrying disease and death into the home of a friend, of slight importance; and, consequently, through the thoughtlessness of the few, desolation and an almost life-long unhappiness are carried into the homes and hearts of the many.

Outbreak of  
Typhoid Fever  
in the Infirmary

On the 1st of September, an outbreak of Enteric or Typhoid Fever occurred in the Infirmary, the acting House Surgeon and one of the servants both taking ill the same day—the former dying on the 11th day of the disease.

The Institution was visited and carefully examined by me, and a detailed report as to the cause of the outbreak, and also as to the sanitary condition of the building, &c., was presented to the Health Committee on the 2nd of October, copies of which were forwarded to the Local Government Board and to the Governors of the Infirmary; suffice it to say, that the conclusions arrived at were, that independently of structural defects, the drainage system was imperfect, insufficient, and dangerous to the health of those residing within the walls of the Institution, and that the outbreak of Enteric Fever arose from the vitiated state of the air, especially in the basement story of the building of the Hospital, arising from the defective and unventilated condition of the drains and soil pipes.

## REPORT.

The Committee of the Infirmary at once took steps to have the whole drainage system put into as good and thorough satisfactory condition as possible, and for that purpose obtained the services of an experienced Engineer from Edinburgh, who made certain recommendations and suggestions for the improvement of the building, and the perfecting of its drainage system, and prepared plans for that purpose, which are being carried out with much energy by the House Committee.

In the month of August a serious outbreak of Scarlet Fever took place in Richmond Street and Brooke Street, Monkwearmouth. Notice of a death was the first intimation received of the disease being in the locality, and on visiting it, and making a house-to-house inspection, no less than 19 cases were found; most of them, however, in a state of convalescence. It appeared that the first case occurred at 8, Richmond Street, being that of a girl who took ill immediately on returning home from school. These two streets are pretty densely populated, so that the disease spread very rapidly. I immediately gave notice for all the ash-pits to be cleansed as quickly possible, and ordered notices to be served upon the occupiers of the houses to cleanse and limewash their dwellings, yards, and out-buildings; and many of the rooms were disinfected by the Inspectors. With these precautions the spread of the disease was soon arrested.

Outbreak of  
Scarlet Fever  
in Monkwear-  
mouth.



**REPORT.****Examination of  
Drains, &c.**

In all cases of, or deaths from, Enteric Fever, careful enquiry was made as to the origin of the disease, the drains, closets, and surroundings of the dwellings being examined as to any defect, &c., and in cases where the drainage was at fault, it was invariably the house drain, or that portion of the drain connecting the house with the main drain.

**Disinfection  
and Cleansing  
of Rooms and  
Dwellings.**

Notices were served upon the occupiers of all premises wherein there had been infectious disease, to cleanse and disinfect the same, 486 such notices having been served during the year; the premises being revisited to see that the notices were complied with.

**Disinfection  
and Destruction  
of Bedding, &c.**

A quantity of clothing and bedding were disinfected in the chamber provided for that purpose; but in 10 instances the latter was of such a character as to be unfit even for disinfection, and so was destroyed by burning; the articles so burnt being replaced at the expense of the Sanitary Authority.

**Lime-washing.**

1,166 notices were served to lime-wash premises, yards, and outbuildings, the lime and brushes required for complying with such notices being given and lent by the Sanitary Authority; and there is no doubt that the expenditure of a small sum of money in this way has produced very beneficial results so far as the public health is concerned.

**Vaccination.**

A statement of the manner in which Vaccination has been carried out in the Borough, kindly furnished by Mr. J. Thompson, Vaccination Officer, is appended to this Report, from which it appears that the Vaccination Acts are very efficiently carried out in the Sunderland Union.

**Unsound Meat.**

During the year, 13 seizures of Unsound Food were made, which comprised 2,390 lbs. of Beef and Mutton, 926 lbs. of Ham and Bacon, 56 lbs. of Cheese, and 2 Casks of Apples. In ten instances the Meat was destroyed with the consent of the owners; three persons were summoned and convicted; and fines amounting to £5 7s. 6d. were inflicted.

## SANITARY REPORT.

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THE general Sanitary condition of the Borough has been systematically and carefully attended during the year, more especially the drainage and sewerage of new streets and houses.

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The Sanitary Inspectors visit periodically every portion of the town, and, when necessary, serve notices to abate any nuisances coming under their observation. Sunderland Parish requires constant supervision, as also certain districts in Bishopwearmouth and Monkwearmouth. Since the cleansing of the town was undertaken by the Corporation, the Inspectors' work, so far as the cleansing of ash-pits is concerned, has been considerably lightened. There is still, however, plenty of work to keep them both fully employed.

During the year, 4,090 notices were served by the Inspectors for the sanitary improvement of houses and dwellings, and 45 persons were summoned before the Magistrates for infringement of the Public Health Acts, of which number 11 were convicted and ordered to abate the nuisance, and fined from 2s. 6d. to 5s., and in 33 instances the summonses were withdrawn on payment of costs, the nuisances having been abated after the issue of the summonses.

In no less than 547 instances, notices were given to repair spouts which were defective, 3 to close cellar dwellings, and 2 to abate nuisances arising from smoke.

The total number of ash-pits and tub-closets now in the Borough is estimated at some 13,000, from which during the year 35,529 tons of refuse was removed and disposed of. A considerable proportion was sold to the farmers in the neighbourhood, for which the Corporation received the sum of £900, which, of course, relieved the district rate to that amount. The cost of



## SANITARY REPORT.

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sending the unusable refuse to sea, and depositing it in the depths thereof, costs £5 10s. per week. It is satisfactory to be able to state that the total cost of cleansing the Borough is within the sum that I estimated it would cost three years ago. The system is now in good working order; and considering the many difficulties they have to contend with, reflects great credit upon the Superintendent of Scavenging and his Foremen, who are responsible for the work being properly carried out.

## The New Pail Closet.

It will be in the remembrance of many that in the year 1876 a recommendation was made by a Sub-Committee that the old system of ash-pits should be done away with as being a nuisance and injurious to health, and that in all new property the Tub or Pail system should be introduced. After considerable discussion and visits to neighbouring towns, it was at length resolved in March last that the Pail Closet as in use at Middlesborough should be adopted; and this having been agreed to by the Council, has been carried out since in all new property, and at the present time there are between 300 and 400 Pail Closets in use. These are cleansed once, twice, or thrice a-week, as occasion may require, and answer extremely well. They take up much less space than the old middens, are easily cleansed, and in fact, are in every way a very great improvement on the old system; and as far as I have been able to ascertain, the cost of cleansing them is, if anything, less than that of ordinary ash-pit cleansing.

## Slaughter Houses.

In my last Report I referred at length to the condition of the Slaughter Houses in the Borough. These are all now registered and inspected from time to time, but so far there is no further progress in the way of having public Abattoirs erected. It is much to be regretted that the Butchers themselves do not take up this question; many of them are men of means, and in a position to advance money for such a purpose; and if an Abattoir was once erected, they could fairly ask the Council to take immediate steps to put a stop to the present objectionable manner of slaughtering cattle, &c.

In the month of July, the Privy Council issued an order for the Registration of Dairies, Cow-Sheds, and Milk-Shops. It also makes provisions, giving to the Local Authority power over buildings used as Dairies or Cow-Sheds, as regards their construction, lighting, and ventilation, including air-space, and also as to cleansing, drainage, and water supply.

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Registration  
and Inspection  
of Dairies,  
Cow-Sheds, and  
Milkshops.

Provisions are also made to prevent, as far as possible, the contamination of Milk by persons suffering from contagious or infectious diseases.

When the order was issued, the carrying out of its provisions was entrusted to the Health Department, and at the outset the Cow-Sheds, Dairies, and Milk-Shops were visited and examined carefully by Inspector McKay and myself.

There are 40 Cow-Sheds or Byres, and Dairies, and 340 Milk-Shops in the Borough. Of the former, 27 were found in a good sanitary condition, and 13 in an unsanitary condition as regards cleanliness; whilst as to ventilation, drainage, and water supply, the majority were in a satisfactory state.

Of the 340 Milkshops, 284 were found in a good sanitary condition, and 56 in a more or less unsanitary state; with regard to these, however, there was no difficulty experienced in having them put in proper order.

The 7th section of the Privy Council Order gives power to the Local Authority to make regulations for the cleansing of Cow-Sheds, &c., and in accordance with the provisions of such section, a series of regulations were drawn up by me, approved by the Health Committee, and sanctioned by the Town Council, and are now in force within the Borough. The regulations are as follows:—

**REGULATIONS FOR THE CLEANSING OF DAIRIES, COW SHEDS,  
AND MILKSHOPS.**

1. Every person occupying a Cow Shed, shall cause the same to be thoroughly cleansed, and flushed with water, at least twice every day, and the yard attached to such Cow Shed to be cleansed and flushed in the same manner at least once a day.



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2. Every person occupying a Cow Shed shall cause all troughs, mangers, grain-tubs, and other receptacles for feeding, or the storage of fodder, to be kept thoroughly clean and free from offensive smell.

3. Every person occupying a Cow Shed, shall provide a properly-covered place or receptacle outside the shed for dung and other refuse.

4. Every person occupying a Cow Shed shall cause all dung, manure, and refuse to be removed from the premises before eight o'clock in the morning at least once in each week, or as often as may be required by the Medical Officer of Health or Inspector of Nuisances.

5. Every person occupying a Cow Shed shall cause the inner walls thereof, and every part of the premises to be kept thoroughly clean at all times, and shall cause the inner surface or ceiling and the upper portion of the walls to be thoroughly coated with lime-wash at least once in every quarter, viz.:—in the Months of January, April, July, and October, and the woodwork of the stalls at least once in every four weeks.

6. Every Cow Keeper, Dairyman, or Purveyor of Milk shall cause his Dairy or Milk Shop to be kept thoroughly clean and sweet at all times, and the walls thereof to be lime-washed at least once in every month, and the floors thereof to be well scrubbed and cleansed at least once in every day.

7. Every Cow Keeper, Dairyman, or Purveyor of Milk shall cause all vessels used for the reception and delivery of the Milk to be thoroughly cleansed with soda and water, and rinsed with boiling water, and well aired, shortly after each time of their being used, and shall also at the same time cause the tables, &c., on which such milk vessels are placed, to be thoroughly scrubbed and cleansed.

8. The Medical Officer of Health, Inspector of Nuisances, or other Officer appointed by the Local Authority, shall at all reasonable times be admitted into any Cow Shed, Dairy, or Milk Shop, for the purpose of examining as to the cleansing of the same, and of the observance of the foregoing regulations.

9. Every person who shall offend against any of the foregoing regulations, shall be liable to a penalty not exceeding £5.

Under the provisions of the Fisheries (Oysters, Crabs, and Lobsters) Act of 1877, these articles of food are prohibited from being sold during certain periods of the year, and when under a certain size, &c. ; and it is further declared by the 12th clause of the Act, "That all Oysters, Crabs, and Lobsters, of which the possession, exposure for sale, consignment for sale, or purchase for sale, is prohibited by this Act, may be searched for, seized, and condemned, destroyed and disposed of, by any Authority lawfully acting under any Act, Charter, or Bye-Law, in like manner as if such Oysters, Crabs, and Lobsters respectively, were found to be diseased, unsound, unwholesome, corrupt, unfit to be sold, or unfit for the food of man."

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REPORT.**

—  
**The Fisheries'  
Act, 1877.**

—  
**Oysters, Crabs,  
and Lobsters.**

In accordance with the powers given by this clause, instructions were given to the Sanitary Inspectors to seize any and all of such shell-fish prohibited from being sold under the provisions of this Act. The various fishmongers were duly warned as to the determination to put the Act into force ; and with good effect, as it was ascertained that previous to this such shell-fish were brought into the town by the steam trawlers ; the result now should be that all such shell-fish, when taken in the nets, should be thrown into the sea again, and not destroyed.

The Common Lodging Houses, numbering 35, and registered to accommodate 927 persons, were inspected periodically, both by day and night, and found to be kept in a cleanly and orderly condition. No Lodging House Keeper was summoned during the year for infringing the Bye-Laws. In consequence of the depression in trade, three or four houses have been closed, and several of them have changed owners—the transfer of licenses being in excess of any previous year.

Two cases of Typhus Fever occurred in the Lodging Houses in the month of January, both being persons in a state of extreme destitution. They were at once removed to the Workhouse Fever Hospital, and the spread of the disease checked at once.



# **SANITARY REPORT.**

## **Offensive Trades.**

The various premises in which offensive trades are carried out, were from time to time inspected; and when any nuisance injurious to health was found to exist, notice was served to abate the same.

The Health Committee continue to make it a rule not to grant licenses to carry on the business of Tripe Dressing, Bone Boiling, &c. They either refuse absolutely to allow such trades to be carried on, or decline to grant a license; and if the applicant commences business without one, do not interfere, unless the carrying on of such business becomes a nuisance or injurious to health.

## **Mortuaries.**

The Mortuaries belonging to the Corporation have been carefully attended to, and during the year a supply of water has been laid on to each. With one exception, all the bodies removed to these buildings were those of persons found drowned, or who had met with a violent or sudden death. Dead bodies arriving at this Port on board ship, are removed to the Sunderland Mortuary at the foot of Coronation Street.

## **Unpaved Streets.**

The condition of the unpaved streets, to which reference was made in my last Report, has engaged the careful attention of the Highways Committee, and the sum of £60,000 has been borrowed from the Public Works Loan Commissioners for the purpose of carrying out the necessary and desirable work of paving and flagging the public thoroughfares. Several contracts have been let, and the work is being proceeded with. It will, however, be some time ere the paviers overtake the builders. New streets and rows of houses are being rapidly formed and built in different portions of the Borough, and it is most essential, in the interests of the public health, that the paving and flagging of the streets should be proceeded with as soon as the houses are fit for occupation. For years past, some, nay, many, of the unpaved streets have been perfect quagmires in the autumn and winter months—a condition inimical to the public health, and causing much personal inconvenience and annoyance to the inhabitants. However, a beginning has been made, and it is to be hoped that the work will be continued until there is not one unpaved street in the Borough.

The amount of sewerage works carried out has been considerable, and it will be remembered that in my last report it was stated that £20,000 had been borrowed to complete the sewerage of several large areas requiring draining. The Health Committee have pushed on these works as rapidly as possible, and out of the money borrowed, from £14,000 to £15,000 have been expended, and contractors are still at work completing the sewerage of those areas for which the remainder of the money was borrowed. It may also here be stated that all the sewers are ventilated as they are laid, by means of an open grate ventilator communicating directly with the sewer; the ventilators being placed some 40 yards apart. There are now between 1 and 2,000 of these ventilators attached to the sewers, and it is but very rarely that any complaint is made of any nuisance arising therefrom; when such complaint is made, it is generally met by placing another ventilator on the main sewer, which thus relieves the pressure of sewer gas. In addition to the open ventilators, many of the large chimneys of manufactories are also connected with the sewers, and thus act as ventilating shafts.

## SANITARY REPORT.

Sewerage  
Works.

For the information of the public, it will not be out of place to give a list of the works, &c., which are under the control, direction, or management of the Health Department of the Corporation and its Officers—

Summary of  
Works under  
the supervision  
and direction of  
the Health  
Department.

The Entire Cleansing of the Borough.

Removal and Disposal of House Refuse.

General Inspection of the Borough by Sanitary Inspectors.

The Inspection of Schools.

Common Lodging Houses.

Public Bakehouses.

Inspection of Food.

Adulteration of Food.

Offensive Trades.

The Inspection of Cow Byres, Dairies, and Milkshops.

The Corporation Hospital and House of Recovery.

The Removal of Fever Patients to Hospital.

The Disinfection of Houses, Bedding, and Clothing.



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REPORT.**

List of the works, &c.—Continued.

The Public Mortuaries.

Slaughter Houses and Butchers' Shops.

The Fisheries (Oyster, Crabs, and Lobster) Act.

Sewerage Works.

The Ventilation of Sewers.

The carrying out of the provisions of the Public Health Act.

Public Conveniences.

The Corporation Stables.

And at the present time there is a proposal that the Watering of the Streets in the summer months shall be transferred from the Highways to the Health Department.

**Adulteration of  
Food.**

During the year, 31 samples of Milk, 2 of Bread, 2 of Water, and 1 of Butter, were forwarded to me for analysis. Of the samples of Milk, only one was found adulterated, and that to the extent of 20 per cent. of water being added; for selling which as new milk, the seller was fined 40s. and costs, being the highest fine yet inflicted by the Sunderland Magistrates for this offence. The samples of Bread and also that of Butter, were found to be pure, whilst those of water were found quite unfit for drinking purposes. With regard to Butter, it may be stated that during the year there was a considerable quantity of what is known in the trade as "Butterine," sold in the town, but so long as it is sold as such, and not as Butter, the Local Authority cannot interfere. "Butterine" usually consists of Beef and Mutton fats and dripping, coloured with annatto: they, in themselves, if pure, not being injurious to health. The Milk supply of this town may be considered very good. At the end of 1874, when the Act was first put in operation here, out of 27 samples submitted, 20 were adulterated; whereas in 1879, only 1 out of 31 was so found.

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In conclusion, I have to express my satisfaction at the manner in which Inspectors McKay and Finlay have discharged their duties. Mr. J. Wilkinson, Superintendent of Scavenging, and the District Foremen under him, have also done their work in a careful and most efficient manner.

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## APPENDIX.

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## TABLE OF BIRTHS

Registered in the Borough, from January 1st to December 27th, 1879.

DISTRICTS.	First Quarter.		Second Quarter.		Third Quarter.		Fourth Quarter.		Total.		Total.	Rate per 1,000.
	M	F	M	F	M	F	M	F	M	F		
Sunderland .....	76	74	72	64	86	74	71	58	305	270	575	30·4
South Bishopwearmouth . . . .	191	165	185	175	174	190	169	158	719	688	1407	40·2
North Bishopwearmouth . . . .	205	195	163	185	172	193	171	173	711	746	1457	46·2
Monkwearmouth .....	131	153	132	127	135	138	111	120	509	583	1047	36·1
	603	587	552	551	567	595	522	509	2244	2242	4486	
Totals .....	1190		1103		1162		1031		4486		4486	40·0
Rate per 1,000. ....	10·4.		9·6		10·1.		9·0.		40·0.			

## TABLE OF DEATHS

Registered in the Borough for the Year ending December 27th, 1879.

DISTRICTS.	Population.	First Quarter.		Second Quarter.		Third Quarter.		Fourth Quarter.		Totals.		Total.	Rate per 1,000.
		M	F	M	F	M	P	M	F	M	F		
Sunderland .....	18,996	61	62	62	43	35	34	40	44	198	183	381	20.0
South Bishopwearmouth .....	35,000	106	97	95	95	99	83	105	110	405	385	790	22.5
North Bishopwearmouth .....	31,500	116	105	105	118	106	77	83	89	410	389	799	25.7
Monkwearmouth .....	29,079	75	81	60	73	62	60	54	72	251	286	537	18.5
		358	345	322	329	302	254	282	315	1264	1243	2507	21.8
Totals .....	114,574	703		651		556		597		2507		2507	21.8
Rate per 1,000 .....		5.7.		5.7.		4.8.		5.2.		21.5.			



## IV.

Occupation of Persons, 20 Years of Age and  
upwards, who died from the undermentioned  
Diseases during 1879,

(Given as accurately as the Returns allowed.)

Occupation.	Heart Disease.	Phthisis.	Disease of Lungs.	Apoplexy.	Paralysis.	Cancer.	Totals.
Agents .....	1	1	3	1	..	..	6
Baker .....	..	..	..	1	..	..	1
Brickmaker .....	..	1	..	..	..	..	1
Brakesman .....	1	..	..	..	..	..	1
Blockmakers .....	..	..	2	..	..	..	2
Bottlemakers .....	1	1	..	..	..	..	2
Boilermakers .....	2	1	..	..	..	..	3
Butchers .....	3	1	..	..	..	..	4
Cartmen .....	3	..	3	2	..	..	8
Clerks .....	1	2	..	1	..	..	4
Customs' Officers .....	..	1	1	..	..	..	2
Caulker .....	..	1	..	..	..	..	1
Coal Trimmers .....	1	2	3	..	..	..	6
Chainmakers .....	..	..	3	..	..	..	3
Cooper .....	..	1	..	..	..	..	1
Chemists .....	..	1	..	..	..	1	2
Coal Dealer .....	..	..	..	1	..	..	1
Drapers .....	1	1	2	..	..	..	4
Drillers .....	..	1	1	..	..	..	2
Enginemen .....	1	..	4	1	..	..	6
Engine Fitter .....	..	1	..	..	..	..	1
Furniture Dealer .....	1	..	..	..	..	..	1
Fisherman .....	..	..	..	1	..	..	1
Gratemen .....	2	..	..	..	..	..	2
Gardener .....	..	..	1	..	..	..	1
Grocers .....	1	1	3	..	..	..	5
Glass Cutters .....	1	..	3	..	1	..	5
Glassmakers .....	..	3	1	..	..	..	4
Ostler .....	..	..	1	..	..	..	1
House Owner .....	2	..	1	..	..	..	3
Hawker .....	..	..	..	..	1	..	1
Innkeeper .....	..	..	..	1	..	..	1
Ironfounder .....	..	..	..	1	..	..	1
Joiners, &c. ....	1	9	8	..	2	..	20
Labourers .....	8	13	21	1	6	2	51
Letter Carrier .....	..	..	1	..	..	..	1
Lamplighters .....	..	1	1	..	..	..	2
Lathrender .....	1	..	..	..	..	..	1
Masons .....	..	..	1	..	3	1	5
Miners .....	3	3	2	1	3	..	12
Carried forward .....	35	46	65	12	16	4	179

## V.

## Occupation of Persons—Continued.

Occupation.	Heart Disease.	Phthisis.	Disease of Lungs.	Apoplexy.	Paralysis.	Cancer.	Totals.
Brought forward .....	35	46	65	12	16	4	179
Mat-maker .....	..	..	1	..	..	..	1
Maltsman .....	..	..	1	..	..	..	1
Musician .....	..	1	..	..	..	..	1
Platelayers .....	3	2	..	..	..	..	5
Puddler .....	..	..	1	..	..	..	1
Pensioner .....	..	1	..	..	..	..	1
Potters .....	..	..	2	..	..	..	2
Painters .....	1	1	2	1	..	..	5
Porters .....	..	1	1	..	..	..	2
Pit Sinker .....	..	..	1	..	..	..	1
Pilots .....	..	..	1	3	..	..	4
Plumber .....	..	1	..	..	..	..	1
Printers .....	1	1	1	..	..	..	3
Pipemakers .....	..	1	..	1	..	..	2
Quarryman .....	..	..	1	..	..	..	1
Ropemakers .....	2	..	..	..	..	..	2
Shipbrokers .....	1	..	1	..	..	..	2
Stonemasons .....	..	1	1	..	..	..	2
Shipwrights .....	6	5	7	1	1	2	22
Seamen .....	4	11	10	3	11	2	41
Smiths .....	5	3	3	..	1	..	12
Solicitor .....	..	..	1	..	..	..	1
Surgeon .....	1	..	..	..	..	..	1
Storekeeper .....	..	1	..	..	..	..	1
Shoemakers .....	3	2	3	..	2	..	10
Station Master .....	..	..	1	..	..	..	1
Staith Master .....	..	..	1	..	..	..	1
Sawyers .....	..	..	3	..	..	..	3
Sail Cloth Maker .....	..	..	1	..	..	..	1
Soldier .....	..	1	..	..	..	..	1
Ship Rivetter .....	1	..	..	..	..	..	1
Tailors .....	1	..	3	1	1	1	7
Turner .....	..	1	..	..	..	..	1
Ticket Writer .....	..	..	1	..	..	..	1
Tobacconist .....	..	..	..	..	..	1	1
Upholsterer .....	1	..	..	..	..	..	1
Watermen .....	..	1	1	1	3	..	6
Weaver .....	1	..	..	..	..	..	1
Waiter .....	1	..	..	..	..	..	1
Totals .....	67	81	115	23	35	10	331
Females .....	58	78	84	23	47	27	317
Grand Totals .....	125	159	199	46	28	37	648



## VI.

## LIST OF STREETS

*Wherein ZYMOTIC DISEASES occurred in  
the Year 1879,*

(Given as accurately as the Returns allowed.)

## SUNDERLAND DISTRICT.

Name of Street.	Fever.	Scarlet Fever	Measles.	Diphtheria.	Whooping Cough.	Diarrhoea.	Removed to Hospital.	Deaths.
Assembly garth .....	..	1	..	..	..	..	1	..
Barrack street .....	1	1	..	..	..	..	..	..
Burleigh street.....	..	3	..	..	..	1	..	2
Bank street .....	..	..	..	..	..	1	..	1
Ettrick place.....	..	..	..	..	..	1	..	1
Fitters' row .....	..	2	..	..	..	..	..	..
George street .....	1	2	..	..	..	..	..	2
High street East .....	..	11	..	1	..	1	..	4
Hat case .....	..	..	..	..	1	..	..	1
Golden alley.....	1	..	..	..	..	..	1	..
Hartley street .....	..	3	..	..	..	..	..	1
Low street .....	..	1	..	..	..	2	..	3
Lombard street .....	1	..	..	..	..	1	..	1
Mill street .....	..	1	..	..	..	..	..	..
Maling's rigg.....	..	1	..	..	..	1	..	1
New Grey street .....	..	7	..	..	..	1	..	1
Nesham square.....	..	2	..	..	..	..	..	1
Numbers' garth .....	1	11	..	..	..	..	1	4
Pottery bank.....	..	4	..	..	..	..	..	1
Panns .....	..	1	..	..	..	..	1	1
Queen street .....	..	2	..	..	..	..	..	..
Robinson's lane .....	..	1	..	..	..	..	..	1
River Wear, (from vessels in)	1	..	..	..	..	1	2	..
South Docks .....	..	5	..	..	..	..	..	1
Silver street .....	2	1	..	..	..	2	1	3
Spring Garden lane.....	..	2	..	..	..	..	2	..
Sans street.....	2	..	..	..	..	1	1	2
Vine street .....	1	1	1	..	..	1	..	3
Wood's Wharf.....	..	1	..	..	..	..	..	1
Totals .....	11	64	1	1	1	14	10	36

## VII

## BISHOPWEARMOUTH DISTRICT.

Name of Street.	Fever.	Scarlet Fever	Measles.	Diphtheria.	Whooping Cough.	Diarrhoea.	Removed to Hospital.	Deaths.
Alice street .....	..	2	..	..	..	..	..	..
Azalea terrace .....	..	4	..	..	..	..	..	..
Argyle square .....	..	3	..	..	..	..	..	1
Aylmer street .....	..	3	..	..	..	..	..	1
Avon street .....	1	2	..	..	..	..	..	2
Addison street .....	..	3	..	..	..	1	..	2
Athol road .....	..	6	..	..	..	..	..	2
Ayre's Quay street .....	..	2	..	..	..	..	..	..
Ailesbury street .....	..	2	..	..	..	..	..	..
Ayre's Quay road .....	..	..	..	..	..	1	..	1
Albert street .....	..	..	..	..	..	1	..	1
Alfred street .....	..	..	..	..	5	..	..	2
Armitage street .....	..	1	..	..	..	..	..	1
Borough road .....	..	2	..	..	..	..	..	1
Bramwell street .....	..	5	..	..	3	..	..	2
Buxton terrace .....	..	3	..	..	..	..	..	1
Brougham street .....	..	..	..	..	2	1	..	2
Bottle bank, Deptford .....	..	..	..	..	8	..	..	2
Coronation street .....	..	3	..	..	..	1	..	1
Clark terrace .....	..	..	..	..	..	1	..	1
Charles street .....	..	3	..	..	..	..	..	1
Chester place .....	..	2	..	..	..	..	..	..
Clyde street .....	..	4	..	..	..	..	..	..
Cousin street .....	..	5	..	..	..	..	..	1
Crescent row .....	6	3	..	..	..	1	5	4
Cromwell street .....	..	1	..	..	..	..	..	..
Chester road .....	..	5	..	..	..	..	..	1
Coatesworth street .....	..	3	..	..	..	..	..	1
Crow street .....	..	1	..	..	..	..	..	1
Crowtree road .....	..	2	..	..	..	..	..	..
Cumberland street .....	1	..	..	..	..	1	1	1
Castle street .....	1	1	..	..	..	..	1	1
Chester terrace .....	..	5	..	..	..	..	..	1
Charles street, Deptford .....	..	1	..	..	..	..	..	1
D'Arcy street .....	..	3	..	..	..	..	..	2
Deptford road .....	..	1	..	..	..	1	..	2
Diamond Hall row .....	..	1	..	..	..	1	..	1
Deptford terrace .....	..	2	..	..	..	..	..	1
Ditchburn terrace .....	..	1	..	..	..	..	..	..
Ethel street .....	1	2	..	..	..	..	..	2
East street .....	..	8	..	..	..	1	..	3
East Hendon terrace .....	..	2	..	..	..	..	..	1
Eden street .....	..	2	..	..	..	..	..	1
Emma street .....	..	6	..	..	..	..	..	1
Frederick street .....	..	1	..	..	..	..	..	..
Farrington row .....	..	2	..	..	..	..	1	1
Ford street .....	..	3	..	..	1	..	..	1
Carried forward ....	10	111	..	..	19	11	8	52



## VIII.

## BISHOPWEARMOUTH DISTRICT—Contd.

Name of Street.	Fever.	Scarlet Fever	Measles.	Diphtheria.	Whooping Cough.	Diarrhoea.	Removed to Hospital.	Deaths.
Brought forward ....	10	111	..	..	19	11	8	52
Fleet street .....	..	..	..	1	..	..	..	1
Fowler terrace .....	..	6	..	..	3	..	..	3
Grafton street .....	..	..	..	..	1	..	..	1
Green terrace .....	..	4	..	..	..	..	..	3
Glebe street .....	..	3	..	..	..	..	..	..
Glass street .....	1	..	..	..	..	..	1	..
Holmeside .....	..	1	..	..	..	..	..	1
Havelock terrace .....	1	..	..	..	..	..	..	..
Hind street .....	2	..	..	..	..	..	..	..
Hope street .....	..	5	..	..	..	1	..	3
Hendon street .....	1	6	..	..	5	..	1	4
Herrington street.....	..	6	..	..	..	..	..	2
Hopper street .....	..	12	..	..	..	..	3	5
Hendon road.....	..	2	..	..	..	..	..	1
Hedworth street .....	..	2	..	..	..	1	..	2
Hendon Valley road .....	..	4	..	..	..	..	..	2
Hedley street .....	..	1	..	..	..	..	..	1
Hillfield .....	..	7	..	..	2	..	..	2
Hawthorn street .....	..	2	..	..	2	..	..	2
Howick street .....	..	3	..	..	..	..	..	..
Hort street .....	..	..	..	2	..	..	..	2
High street West.....	..	..	..	..	1	1	..	2
Harrogate street .....	..	..	..	..	1	..	..	1
Hudson road.....	..	1	..	..	..	..	..	1
Harold street .....	..	1	..	..	..	..	1	..
Hetton street .....	..	10	..	..	..	..	..	5
Henry street .....	..	9	..	..	3	1	..	5
Infirmery row .....	..	2	..	..	..	..	..	1
Infirmery .....	..	3	..	..	..	..	3	..
John street, Ballast hills ..	..	3	1	..	6	..	..	3
John street .....	..	4	..	..	..	..	..	1
King street .....	1	4	..	..	..	1	..	2
King's place .....	1	..	..	..	..	..	1	..
Low row.....	..	1	..	..	..	..	..	1
Lawton street .....	..	2	..	..	..	..	..	1
Lister street .....	..	2	..	..	..	..	..	..
Lumley street .....	..	3	..	..	..	..	..	2
Lodge terrace .....	..	1	..	..	..	..	..	1
Lisburn terrace .....	..	3	..	..	..	..	..	1
Middle street .....	..	1	..	..	..	..	..	1
Milburn street .....	..	1	..	..	..	..	1	..
Merle terrace .....	..	4	..	..	..	..	..	1
Maritime street.....	..	..	..	1	..	..	..	1
Mainsforth terrace .....	..	8	..	..	..	..	..	1
Moor street .....	..	6	..	..	..	..	..	4
Carried forward ....	17	244	1	4	43	16	19	122

## IX.

## BISHOPWEARMOUTH DISTRICT—Contd.

Name of Street.	Fever.	Scarlet Fever	Measles.	Diphtheria.	Whooping Cough.	Diarrhoea.	Removed to Hospital.	Deaths.
Brought forward ....	17	244	1	4	43	16	19	122
McNay's buildings .....	1	1	..	..	..	..	1	1
Mount pleasant .....	1	..	..	..	..	..	..	1
Mabel terrace .....	..	3	..	..	1	..	..	2
Nile street .....	1	2	..	..	..	..	..	2
Noble street .....	..	7	..	..	..	..	..	..
North Johnson street .....	2	..	..	1	..	..	1	2
North Durham street .....	2	8	..	..	..	..	..	6
Northumberland street .....	..	9	..	..	..	..	..	5
Norman street .....	..	12	..	..	..	2	3	6
Offerton street .....	..	4	..	..	..	..	..	1
Old Mill road .....	..	..	..	2	..	..	..	1
Ogden street .....	..	2	..	..	3	..	..	2
Oak street .....	..	3	..	..	..	..	..	1
Page street .....	..	5	..	..	..	..	..	1
Plevna terrace .....	..	3	..	..	..	..	..	1
Park Place East .....	1	..	..	..	..	..	1	..
Pemberton street .....	..	3	..	..	..	..	..	1
Prince street .....	..	1	..	..	..	..	..	1
Robinson terrace .....	..	2	..	..	..	1	..	3
Ravensworth street .....	..	4	..	..	..	1	..	2
Ropery row .....	..	..	..	..	1	..	..	1
Royalty .....	..	..	..	..	3	..	..	1
Rosedale street .....	..	2	..	..	..	..	..	1
Rutland street .....	1	4	..	..	..	..	..	1
Ridley terrace .....	..	..	..	..	..	1	..	1
Robinson street .....	..	1	..	..	3	..	..	2
Rock terrace .....	..	4	..	..	..	..	..	2
Railway street .....	..	5	..	..	..	..	2	1
Summerhill .....	..	1	..	..	..	..	..	..
Suffolk street .....	..	4	..	..	..	..	..	2
Saint Vincent street .....	..	7	..	..	..	..	..	2
Salem street .....	..	2	..	..	..	..	..	2
Short street .....	1	..	..	..	1	..	..	1
Southgate .....	1	..	..	..	..	..	..	..
Smyrna place .....	..	1	..	..	..	..	..	1
St. Bede's terrace .....	..	1	..	..	..	..	..	..
Salem hill .....	..	3	..	..	..	..	..	2
South Moor street .....	..	2	..	..	..	..	..	1
Simpson street .....	1	3	..	..	2	..	..	4
South street .....	1	..	..	..	..	..	1	..
Sans street South .....	1	..	..	..	..	..	..	1
Shakespeare terrace .....	..	1	..	..	..	..	..	..
Trimdon street .....	1	5	..	..	..	..	..	..
Thompson street .....	..	4	..	..	..	..	..	1
The Retreat .....	..	2	..	..	..	..	..	3
Carried forward ....	32	365	1	7	57	21	28	191



## X.

## BISHOPWEARMOUTH DISTRICT.—Contd.

Name of Street.	Fever.	Scarlet Fever	Measles.	Diphtheria.	Whooping Cough.	Diarrhoea.	Removed to Hospital.	Deaths.
Brought forward ....	32	365	1	7	57	21	28	191
Tyne street .....	..	5	..	..	..	..	..	2
Tatham street .....	1	..	..	..	..	..	..	1
Tees street.....	..	..	..	..	..	1	..	1
Tower street .....	..	3	..	..	..	..	..	1
Vane terrace.....	..	3	..	..	..	..	..	2
Vine place.....	..	1	..	..	..	1	..	2
Volunteer Garrison.....	..	..	..	..	7	..	..	2
Villiers street .....	..	6	..	..	..	1	..	2
Watson street .....	..	1	..	..	..	..	..	..
Water street .....	..	2	..	..	..	..	..	..
Wellington road .....	..	6	..	..	2	..	..	3
Walworth street .....	..	..	..	..	3	..	..	1
West street .....	..	..	..	..	5	..	..	2
West Wear street .....	..	2	..	..	..	..	..	1
Westbury street .....	1	6	..	..	..	..	..	2
Washington street .....	1	2	..	..	..	..	..	1
Wear street .....	1	7	..	..	..	1	1	4
Whitehouse road .....	..	6	..	..	..	..	..	3
Ward street .....	..	10	..	..	..	1	..	6
Waterworks road.....	..	3	..	..	..	..	..	2
Wilson street .....	1	..	..	..	..	..	1	..
West Sunnyside .....	..	4	..	..	..	..	..	1
Wellington lane .....	..	..	..	..	..	1	..	1
Woodbine street .....	..	..	..	..	..	1	..	1
Winchester terrace .....	..	2	..	..	..	..	..	1
Williams street.....	2	4	..	..	2	..	2	4
William street .....	..	1	..	..	..	2	..	3
Whitehouse Farm .....	..	3	..	..	..	..	..	..
Worcester terrace .....	..	2	..	..	..	..	..	..
Zion street.....	..	..	..	..	..	1	..	1
..	..	..	..	..	..	..	..	..
Total .....	39	444	1	7	76	31	32	241

# XI.

## MONKWEARMOUTH DISTRICT.

Name of Street.	Fever.	Scarlet Fever	Measles.	Diphtheria.	Whooping Cough.	Diarrhoea.	Removed to Hospital.	Deaths.
Albany street .....	..	3	..	..	..	..	..	1
Barrack square .....	1	..	..	..	..	..	1	..
Bloomfield street .....	..	4	..	..	2	..	..	4
Barrington street .....	..	6	..	..	1	..	..	3
Brandling street .....	8	3	..	..	..	1	..	3
Brooke street .....	1	11	..	..	..	1	..	6
Bonner's field .....	1	..	..	..	..	..	..	1
Bond street .....	7	..	..	..	..	1	..	2
Colliery square .....	..	..	..	..	..	1	..	1
Charles street .....	..	..	..	..	..	1	..	1
Church street .....	1	5	..	..	..	..	1	3
Dock street .....	..	4	..	..	..	..	..	1
Dame Dorothy street .....	..	13	..	..	..	..	..	2
Duke street .....	..	4	..	..	..	..	..	1
Dundas street .....	..	2	..	..	..	3	..	2
Devonshire street .....	3	..	..	..	..	..	2	..
Edmundson street .....	3	..	..	..	..	..	2	..
Eglinton street .....	..	2	..	1	..	..	..	1
Ellerslie terrace .....	..	2	..	..	..	..	1	..
Finsbury street .....	..	3	..	..	..	1	..	2
Gladstone street .....	..	1	..	..	..	..	..	1
Gosforth street .....	1	4	..	..	..	1	..	2
Garden Court .....	..	1	..	..	..	..	..	..
Huddleston street .....	1	1	..	..	..	..	..	1
Hood street .....	..	17	..	..	..	1	..	7
Hedworth place .....	..	1	..	..	..	..	..	..
Hay street .....	..	3	..	..	..	..	..	..
Hardwicke street .....	..	..	..	..	..	3	..	3
Hedworth street .....	..	..	..	..	..	..	..	1
Hallgarth square .....	..	..	..	..	..	..	..	1
Liddle street .....	..	9	..	..	..	..	..	1
Look-out hill .....	3	..	..	..	..	..	..	1
Marley's buildings .....	2	..	..	..	..	..	..	..
Mulgrave street .....	..	4	..	..	..	..	..	1
Mill row .....	..	2	..	..	..	..	..	..
Normanby street .....	1	..	..	..	..	..	..	..
North quay .....	..	2	..	..	..	..	..	1
North Bridge street .....	..	6	..	..	..	..	..	2
Portobello lane .....	..	..	..	..	..	1	..	1
Roker avenue .....	1	4	..	..	..	..	..	..
Richmond street .....	..	18	..	..	..	..	..	4
Rendlesham street .....	..	3	..	..	..	..	..	1
Sheepfolds .....	..	2	..	..	2	..	..	1
Rothsay street .....	..	2	..	..	..	..	..	1
Thomas street .....	..	1	..	..	..	..	..	1
Trafalgar court .....	..	..	..	..	..	1	..	1
Victor street .....	..	1	..	2	3	1	..	4
Carried forward ....	34	143	..	3	8	17	7	70



## XII.

## MONKWEARMOUTH DISTRICT—Contd.

Name of Street.	Fever.	Scarlet Fever	Measles.	Diphtheria.	Whooping Cough.	Diarrhoea.	Removed to Hospital.	Deaths.
Brought forward ....	34	143	..	3	8	17	7	70
Williamson street .. .. .	..	11	..	..	..	..	..	2
Whitburn street .. . . .	..	2	..	..	..	..	..	..
Waterloo street .. . . .	1	..	..	..	..	..	..	1
Warwick street .. . . .	..	1	..	..	..	..	..	..
Wayman street .. . . .	..	2	..	..	2	..	..	1
Yorke street .. . . .	..	..	..	..	..	1	..	1
Zetland street .. . . .	2	6	..	..	2	1	..	4
Total .. . . .	27	167	..	3	16	19	7	79
Sunderland District ....	11	64	1	1	1	14	10	36
Bishopwearmouth District	39	444	1	7	76	31	32	241
Monkwearmouth District	37	167	..	3	16	19	7	79
Grand Totals ....	87	675	2	11	93	64	49	356

*Statement of Vaccination in the entire Districts of the Sunderland Union,*

YEAR ENDING DECEMBER, 1878,

(AS FURNISHED BY MR. J. THOMPSON, VACCINATION OFFICER.)

REGISTRATION DISTRICTS.	Births Registered.	Vaccinated by Public Vaccinator.	Vaccinated by Private Medical Practitioners.	Total Vaccinated.	Postponed by Medical Authority.	Dead previous to Removal.	Removals into other Unions.	In Abeyance.
Sunderland East .....	361	265	50	315	8	38	..	..
Sunderland West .....	350	157	150	307	3	40	..	..
Bishopwearmouth South ....	1817	824 1*	714	1538	54	180	35	9
Bishopwearmouth North ....	1511	760 1*	475	1235	43	166	62	4
Monkwearmouth .....	1488	845	429	1274	16	149	47	2
Totals .....	5527	2851	1818	4669	124	573	144	15

\*Denotes "Insusceptibility."



## XIV.

## TABLE OF METEOROLOGICAL OBSERVATIONS,

*From January to March, 1879.*

JANUARY.						FEBRUARY.						MARCH.					
Date.	Barometer.	Thermo- meter.		Direction of Wind.	Rainfall.	Date.	Barometer.	Thermo- meter.		Direction of Wind.	Rainfall.	Date.	Barometer.	Thermo- meter.		Direction of Wind.	Rainfall.
		Highest.	Lowest.					Highest.	Lowest.					Highest.	Lowest.		
1	29·650	49·0	36·0	NW	·00	1	30·124	37·0	30·0	SW	·01	1	30·000	43·0	32·0	NNE	·01
2	29·853	37·0	28·0	NW	·00	2	29·865	37·0	29·0	ESE	·10	2	29·952	53·0	36·0	SW	·00
3	29·500	35·0	32·0	NW	·00	3	29·875	36·0	33·0	ENE	·08	3	29·670	49·0	39·0	WNW	·00
4	29·600	37·0	28·0	NW	·00	4	29·977	38·0	32·0	NNW	·04	4	29·700	50·0	37·0	WSW	·00
5	29·976	38·0	30·0	NW	·00	5	29·710	36·0	30·0	NW	·00	5	29·651	56·0	44·0	WSW	·00
6	30·200	38·0	32·0	NW	·00	6	29·113	49·0	36·0	SW	·05	6	30·028	55·0	40·0	NW	·00
7	30·078	36·0	32·0	SW	·00	7	29·100	46·0	40·0	SW	·03	7	30·418	58·0	40·0	NW	·00
8	29·835	38·0	31·0	SSW	·00	8	29·250	46·0	39·0	W	·05	8	30·478	60·0	38·0	NW	·00
9	30·145	36·0	34·0	SE	·00	9	29·200	46·0	38·0	SE	·08	9	30·240	55·0	40·0	SW	·00
10	29·735	35·0	31·0	SE	·10	10	28·920	42·0	37·0	NE	·11	10	30·175	50·0	43·0	NW	·00
11	29·622	34·0	29·0	NW	·23	11	28·967	39·0	38·0	NNE	·16	11	30·294	55·0	36·0	NNW	·07
12	29·967	41·0	30·0	WNW	·16	12	29·773	39·0	35·0	NNE	·00	12	29·529	58·0	39·0	WNW	·00
13	29·785	45·0	32·0	WSW	·33	13	29·724	40·0	37·0	E	·04	13	30·252	38·0	29·0	NW	·00
14	29·707	43·0	37·0	SE	·00	14	29·629	39·0	38·0	SE	·16	14	30·170	40·0	26·0	NW	·11
15	29·457	42·0	40·0	NW	·17	15	29·617	37·0	35·0	SSE	·33	15	29·515	45·0	35·0	W	·03
16	29·922	39·0	32·0	NW	·00	16	29·160	37·0	35·0	SE	·38	16	29·715	87·0	35·0	ENE	·12
17	30·200	39·0	30·0	NW	·00	17	28·960	37·0	35·0	SE	·32	17	30·146	45·0	35·0	ESE	·00
18	30·000	39·0	35·0	SW	·00	18	29·170	36·0	31·0	NE	·20	18	29·835	47·0	34·0	SW	·03
19	30·358	37·0	35·0	SW	·00	19	29·280	37·0	30·0	WSW	·22	19	29·750	47·0	40·0	SSW	·12
20	30·285	35·0	29·0	SW	·00	20	29·070	39·0	30·0	SE	·10	20	29·916	42·0	38·0	NE	·00
21	30·060	36·0	31·0	SW	·02	21	29·253	36·0	32·0	ENE	·01	21	29·900	40·0	38·0	NE	·00
22	30·194	34·0	30·0	E	·12	22	29·286	36·0	29·0	NW	·00	22	30·022	36·0	34·0	E	·00
23	30·197	34·0	28·0	NW	·04	23	29·400	36·0	30·0	NNE	·01	23	30·155	38·0	35·0	E	·00
24	30·143	34·0	27·0	NW	·05	24	29·640	40·0	32·0	NW	·58	24	30·141	34·0	32·0	SE	·00
25	30·216	35·0	30·0	SE	·00	25	30·146	39·0	30·0	NE	·04	25	30·031	35·0	32·0	E	·01
26	30·170	33·0	28·0	NW	·00	26	30·150	39·0	32·0	NNW	·08	26	29·875	37·0	32·0	SE	·01
27	30·445	33·0	21·0	NW	·00	27	29·852	52·0	37·0	WNW	·01	27	29·767	34·0	30·0	SE	·02
28	30·420	34·0	24·0	NW	·00	28	29·658	45·0	40·0	NW	·02	28	29·718	37·0	32·0	NE	·05
29	30·410	36·0	30·0	SE	·02							29	26·461	62·0	35·0	SW	·07
30	30·450	36·0	32·0	NNE	·05							30	29·538	58·0	37·0	SW	·00
31	30·360	36·0	32·0	SE	·04							31	29·467	59·0	39·0	SW	·00
Mean Height of Barometer in Month, 33·000.						Mean Height of Barometer in Month, 32·096.						Mean Height of Barometer in Month, 29·919.					
Adopted Mean Temperature 39·0.						Adopted Mean Temperature 36·7						Adopted Mean Temperature 41·3.					
Rainfall, 1·23.						Rainfall, 3·20.						Rainfall, 0·65.					



XV.

TABLE OF METEOROLOGICAL OBSERVATIONS.

*From April to June, 1879.*

APRIL.						MAY						JUNE.					
Date.	Barometer.	Thermo- meter.		Direction of Wind.	Rainfall.	Date.	Barometer.	Thermo- meter.		Direction of Wind.	Rainfall.	Date.	Barometer.	Thermo- meter.		Direction of Wind.	Rainfall.
		Highest.	Lowest.					Highest.	Lowest.					Highest.	Lowest.		
1	29.531	58.0	37.0	NW	.00	1	30.210	54.0	36.0	NE	.06	1	29.529	54.0	42.0	NE	.26
2	29.573	59.0	39.0	NW	.00	2	30.430	58.0	36.0	NE	.00	2	29.500	61.0	44.0	NW	.06
3	29.573	53.0	38.0	NW	.01	3	30.440	53.0	37.0	SE	.00	3	29.573	58.0	44.0	NE	.05
4	29.667	59.0	35.0	NW	.00	4	30.533	59.0	36.0	SE	.00	4	29.713	56.0	47.0	NW	.05
5	29.651	56.0	42.0	SW	.00	5	30.435	71.0	39.0	NW	.00	5	29.870	60.0	44.0	NW	.03
6	29.400	50.0	42.0	SW	.01	6	30.110	50.0	40.0	NNE	.05	6	29.777	56.0	48.0	SE	.00
7	29.000	43.0	39.0	SE	.00	7	30.110	47.0	33.0	NE	.15	7	29.783	56.0	48.0	SE	.00
8	29.213	44.0	40.0	SE	.50	8	29.910	51.0	37.0	NW	.00	8	29.577	64.0	47.0	W	.91
9	29.590	40.0	38.0	SE	.20	9	29.810	49.0	39.0	NE	.04	9	29.666	63.0	47.0	SE	.00
10	30.016	46.0	37.0	ENE	.15	10	29.972	50.0	36.0	NE	.00	10	29.906	61.0	53.0	SW	.11
11	30.240	51.0	34.0	N	.00	11	29.824	60.0	45.0	SSW	.00	11	30.062	66.0	52.0	SE	.48
12	29.919	45.0	34.0	E	.09	12	30.048	68.0	42.0	NW	.02	12	29.911	55.0	50.0	NE	.30
13	29.800	46.0	32.0	ESE	.24	13	30.058	55.0	46.0	SW	.00	13	30.116	55.0	49.0	NE	.02
14	29.680	44.0	33.0	E	.05	14	29.822	45.0	44.0	NNE	.06	14	30.066	66.0	49.0	SE	.00
15	29.640	46.0	33.0	NE	.06	15	29.884	44.0	42.0	NE	.31	15	29.838	74.0	53.0	SW	.00
16	29.535	51.0	37.0	NE	.05	16	30.146	50.0	42.0	NE	.15	16	29.650	55.0	53.0	NE	.00
17	29.630	48.0	35.0	NNE	.00	17	29.978	53.0	41.0	SSE	.00	17	29.393	57.0	50.0	WSW	.55
18	29.910	49.0	36.0	NNE	.02	18	29.797	44.0	41.0	E	.00	18	29.708	60.0	51.0	NE	.00
19	29.870	51.0	38.0	SSW	.00	19	29.847	51.0	42.0	ESE	.02	19	29.800	66.0	48.0	ESE	.00
20	29.482	49.0	40.0	NE	.00	20	29.925	58.0	43.0	SE	.03	20	29.620	75.0	57.0	WNW	.08
21	29.561	55.0	37.0	NNE	.00	21	30.052	57.0	48.0	SW	.01	21	29.654	59.0	53.0	SW	.00
22	29.506	45.0	39.0	NE	.01	22	30.000	58.0	47.0	SW	.08	22	29.500	68.0	54.0	WNW	.69
23	29.466	44.0	40.0	ESE	.00	23	30.132	61.0	44.0	NE	.38	23	29.750	67.0	50.0	SE	.00
24	29.869	41.0	37.0	NE	.09	24	30.030	60.0	45.0	SW	.00	24	29.500	64.0	50.0	SE	.06
25	29.960	45.0	37.0	SSW	.16	25	29.817	68.0	47.0	NW	.11	25	29.473	70.0	47.0	NW	.12
26	29.600	54.0	42.0	W	.14	26	29.548	62.0	45.0	SW	.00	26	29.581	67.0	50.0	SW	.24
27	29.741	47.0	40.0	NE	.16	27	29.672	61.0	42.0	NE	.00	27	29.612	68.0	53.0	SW	.01
28	30.090	55.0	41.0	NE	.00	28	29.717	57.0	43.0	NE	.00	28	29.556	73.0	54.0	SW	.03
29	30.290	49.0	39.0	NNW	.00	29	29.677	50.0	44.0	NE	.00	29	29.800	71.0	53.0	SW	.01
30	30.300	51.0	40.0	NE	.00	30	29.647	61.0	45.0	SW	.15	30	29.850	74.0	52.0	SW	.00
						31	29.643	49.0	47.0	NE	.00						
Mean Height of Barometer in Month, 29.710.						Mean Height of Barometer in Month, 29.974.						Mean Height of Barometer in Month, 29.710.					
Adopted Mean Temperature 43.2.						Adopted Mean Temperature 43.5.						Adopted Mean Temperature 56.5.					
Rainfall, 1.74.						Rainfall, 1.30.						Rainfall, 4.05.					



## XVI.

## TABLE OF METEOROLOGICAL OBSERVATIONS,

*From July to September, 1879.*

JULY						AUGUST						SEPTEMBER					
Date.	Barometer.	Thermo- meter.		Direction of Wind.	Rainfall.	Date.	Barometer.	Thermo- meter.		Direction of Wind.	Rainfall.	Date.	Barometer.	Thermo- meter.		Direction of Wind.	Rainfall.
		Highest.	Lowest.					Highest.	Lowest.					Highest.	Lowest.		
1 29·219	71·0	53·0	SE	·25	1 29·700	72·0	55·0	W	·19	1 30·366	68·0	46·0	NW	·01			
2 29·119	67·0	50·0	WSW	·31	2 30·154	73·0	50·0	NW	·00	2 30·179	58·0	50·0	NW	·10			
3 29·307	71·0	50·0	SW	·00	3 30·054	66·0	54·0	SE	·00	3 29·935	79·0	52·0	SW	·00			
4 29·394	65·0	51·0	NW	·00	4 29·786	70·0	55·0	SE	·08	4 30·000	67·0	52·0	NW	·00			
5 29·651	71·0	51·0	NW	·00	5 29·780	63·0	56·0	SW	·01	5 30·070	59·0	52·0	SE	·00			
6 29·850	62·0	52·0	WNW	·00	6 29·436	64·0	53·0	SE	·24	6 29·693	62·0	52·0	SE	·00			
7 29·500	72·0	53·0	W	·14	7 29·581	69·0	53·0	NW	·06	7 29·588	65·0	54·0	S	·04			
8 29·130	66·0	52·0	WSW	·09	8 29·756	75·0	52·0	NW	·00	8 29·513	68·0	50·0	SSW	·01			
9 29·206	67·0	52·0	NW	·05	9 29·863	60·0	49·0	NNE	·00	9 29·259	60·0	50·0	SE	·20			
10 29·711	60·0	50·0	NW	·17	10 30·015	64·0	50·0	NE	·19	10 29·811	71·0	49·0	NW	·09			
11 29·858	57·0	49·0	NNW	·09	11 30·093	70·0	53·0	SE	·00	11 29·763	59·0	52·0	NW	·00			
12 29·783	61·0	52·0	SE	·00	12 29·950	69·0	56·0	SE	·00	12 29·428	70·0	54·0	NW	·17			
13 29·573	57·0	52·0	NE	·01	13 29·806	60·0	53·0	SE	·00	13 29·628	70·0	50·0	NW	·00			
14 29·537	61·0	52·0	NNW	·49	14 29·979	71·0	55·0	NNW	·30	14 29·767	74·0	49·0	NW	·00			
15 29·823	57·0	49·0	NNE	·13	15 29·979	70·0	53·0	NE	·00	15 29·920	59·0	50·0	W	·00			
16 29·906	59·0	49·0	NE	·00	16 29·706	58·0	54·0	NE	·02	16 30·020	60·0	53·0	WNW	·00			
17 29·912	56·0	42·0	SE	·02	17 29·413	64·0	54·0	ENE	·92	17 30·013	64·0	53·0	SW	·00			
18 30·079	63·0	53·0	SE	·00	18 29·556	70·0	54·0	SE	·38	18 29·960	68·0	53·0	WSW	·00			
19 29·904	61·0	54·0	SSE	·00	19 29·756	63·0	52·0	SE	·00	19 30·123	56·0	52·0	N	·00			
20 29·411	57·0	55·0	SE	·48	20 29·511	67·0	55·0	SE	·10	20 29·922	66·0	47·0	SW	·00			
21 29·363	56·0	52·0	NNE	·33	21 29·600	63·0	55·0	SW	·00	21 29·913	58·0	52·0	SW	·01			
22 29·671	53·0	50·0	NNE	1·03	22 29·407	72·0	53·0	WSW	·07	22 29·729	66·0	48·0	NW	·11			
23 29·942	61·0	50·0	NNE	·03	23 29·715	75·0	53·0	SW	·11	23 29·225	64·0	47·0	WSW	·15			
24 29·883	74·0	50·0	SW	·05	24 29·900	76·0	53·0	WNW	·00	24 29·377	59·0	44·0	NW	·00			
25 29·950	71·0	52·0	WSW	·00	25 29·520	74·0	55·0	SW	·06	25 29·857	65·0	44·0	WNW	·00			
26 29·900	67·0	53·0	W	·00	26 29·358	67·0	52·0	W	·21	26 30·072	61·0	49·0	SW	·00			
27 29·950	71·0	54·0	NW	·22	27 29·413	64·0	53·0	SE	·27	27 30·272	66·0	43·0	SW	·01			
28 29·945	78·0	55·0	NW	·00	28 29·257	71·0	52·0	SW	·11	28 29·873	57·0	42·0	WSW	·00			
29 30·000	82·0	60·0	WSW	·00	29 29·406	73·0	54·0	SW	·04	29 30·048	67·0	42·0	WSW	·02			
30 29·838	69·0	62·0	NW	·00	30 29·833	74·0	48·0	SW	·00	30 30·184	59·0	41·0	SE	·00			
31 29·850	59·0	54·0	SE	·18	31 29·813	65·0	49·0	WNW	·13								
Mean Height of Barometer in Month, 29·036.						Mean Height of Barometer in Month, 30·064.						Mean Height of Barometer in Month, 29·850.					
Adopted Mean Temperature 57·5.						Adopted Mean Temperature 60·0.						Adopted Mean Temperature 56·5.					
Rainfall, 3·79.						Rainfall, 3·49.						Rainfall, 0·92.					



## XVII.

## TABLE OF METEOROLOGICAL OBSERVATIONS,

*From October to December, 1879.*

OCTOBER						NOVEMBER						DECEMBER					
Date.	Barometer.	Thermo- meter.		Direction of Wind.	Rainfall.	Date.	Barometer.	Thermo- meter.		Direction of Wind.	Rainfall.	Date.	Barometer.	Thermo- meter.		Direction of Wind.	Rainfall.
		Highest.	Lowest.					Highest.	Lowest.					Highest.	Lowest.		
1	29.700	60.0	50.0	SSE	.00	1	30.057	44.0	40.0	NNE	.01	1	29.800	35.0	28.0	NW	.73
2	29.870	54.0	42.0	SW	.04	2	30.249	46.0	34.0	N	.80	2	29.779	35.0	22.0	NW	.23
3	29.920	57.0	43.0	WSW	.01	3	30.390	48.0	36.0	NNE	.32	3	29.849	32.0	29.0	WNW	.00
4	30.100	60.0	52.0	WNW	.09	4	30.481	50.0	38.0	NW	.15	4	29.735	23.0	9.0	NW	.00
5	30.219	72.0	54.0	W	.00	5	30.325	56.0	41.0	NW	.00	5	29.500	32.0	13.0	WSW	.00
6	30.327	69.0	45.0	W	.00	6	30.310	54.0	45.0	NW	.00	6	30.000	32.0	25.0	WSW	.19
7	30.383	63.0	43.0	W	.00	7	30.484	57.0	45.0	NW	.00	7	30.380	33.0	21.0	NW	.00
8	30.527	54.0	46.0	ENE	.00	8	30.451	50.0	43.0	W	.00	8	30.500	36.0	30.0	NW	.00
9	30.433	69.0	42.0	W	.00	9	30.228	52.0	41.0	SSW	.00	9	30.390	39.0	31.0	WSW	.02
10	30.377	60.0	44.0	WNW	.00	10	30.114	47.0	44.0	NE	.23	10	30.487	37.0	34.0	NW	.02
11	30.424	65.0	48.0	W	.00	11	29.749	47.0	38.0	SW	.01	11	30.500	36.0	27.0	NW	.00
12	30.521	54.0	49.0	NNW	.00	12	29.773	44.0	40.0	NW	.00	12	30.630	39.0	32.0	WSW	.00
13	30.327	62.0	48.0	NW	.00	13	30.133	44.0	34.0	NW	.00	13	30.670	41.0	32.0	NW	.00
14	30.028	52.0	50.0	NW	.00	14	30.316	44.0	33.0	NW	.00	14	30.352	45.0	36.0	WSW	.00
15	30.196	45.0	36.0	NW	.30	15	30.408	47.0	32.0	NW	.00	15	30.360	48.0	40.0	W	.00
16	30.199	48.0	37.0	NW	.04	16	30.300	50.0	35.0	WNW	.00	16	30.375	42.0	38.0	SW	.00
17	29.538	56.0	43.0	NW	.00	17	29.980	56.0	45.0	W	.00	17	30.510	46.0	36.0	SW	.00
18	29.896	57.0	39.0	NW	.00	18	30.217	58.0	45.0	NW	.00	18	30.660	41.0	37.0	NW	.00
19	29.280	58.0	45.0	WNW	.04	19	30.440	47.0	46.0	NNE	.01	19	30.665	39.0	37.0	SW	.00
20	29.092	56.0	43.0	NNW	.05	20	30.384	47.0	42.0	ESE	.07	20	30.560	38.0	35.0	SSW	.01
21	29.746	55.0	38.0	NW	.01	21	29.954	44.0	40.0	NE	.04	21	30.358	36.0	30.0	SW	.00
22	29.740	56.0	42.0	W	.03	22	29.800	38.0	31.0	SW	.50	22	30.365	46.0	29.0	NW	.00
23	29.822	60.0	48.0	W	.00	23	29.958	42.0	32.0	NW	.02	23	30.520	49.0	39.0	SW	.00
24	29.561	64.0	55.0	SW	.02	24	30.110	44.0	35.0	E	.09	24	30.095	45.0	37.0	SW	.00
25	29.579	59.0	45.0	NNW	.02	25	30.408	42.0	38.0	E	.06	25	30.500	44.0	37.0	WNW	.01
26	30.100	54.0	36.0	WNW	.00	26	30.316	44.0	35.0	NNE	.03	26	30.420	36.0	30.0	WSW	.00
27	30.266	56.0	40.0	E	.00	27	30.179	44.0	35.0	NE	.12	27	30.190	50.0	27.0	SW	.00
28	30.307	53.0	42.0	N	.00	28	30.159	40.0	35.0	NW	.05	28	29.750	54.0	32.0	SW	.02
29	30.266	51.0	39.0	NW	.00	29	30.030	36.0	33.0	NW	.12	29	29.640	48.0	41.0	SW	.00
30	30.348	49.0	45.0	NE	.01	30	29.865	32.0	29.0	NW	.09	30	29.281	42.0	37.0	SW	.06
31	30.337	49.0	46.0	NE	.00							31	29.380	53.0	35.0	SSW	.08
Mean Height of Barometer in Month, 30.046.						Mean Height of Barometer in Month, 30.185.						Mean Height of Barometer in Month, 30.167.					
Adopted Mean Temperature 50.8.						Adopted Mean Temperature 42.2						Adopted Mean Temperature 35.7.					
Rainfall, 0.66.						Rainfall, 2.72.						Rainfall, 1.37.					



XVIII.

*Cases in which Premises were visited by the Medical Officer of Health and Sanitary Inspectors, on account of Infectious Diseases prevailing therein.*

Diseases.	No. of Cases.	Bedding and Articles of Clothing Burned to prevent Contagion, and Houses Disinfected.	No.
Smallpox .....	..	Flock and Chaff Beds ....	4
Typhus Fever.....	26	Mattresses .....	3
Typhoid „ .....	39	Pillows, &c.....	1
Other „ .....	25	Sheets, &c. ....	2
Scarlatina .....	673	Houses Disinfected by the Inspector .....	29
Measles.....	2		
Diphtheria .....	11		
Whooping Cough .....	93		
Croup .....	12		
Diarrhœa .....	66		
Total .....	947	Total .....	39

*List of Cases in which it was found necessary to adopt Magisterial proceedings.*

Particulars of Complaint.	No. of Cases.	How Disposed of	Penalties Imposed.
			£ s. d.
Depositing Offensive Matter on the Street .....	1	Fined 2s. 6d. ....	0 2 6
Ash-pits, Privies, Water-closets, Spouts, and Premises in such a state as to be a Nuisance and Injurious to Health .....	43	4 Orders to abate made, one 10s. and one 2s. 6d., 33 cases withdrawn, and 4 fined 5s. each.....	1 12 6
Exposing Unsound Food for Sale .....	3	One fined 2s. 6d. and 5s., and one £5.....	5 7 6
Adulteration of Food ....	1	One fined 40s. ....	2 0 0
	48		£9 2 6

## XIX.

*Number of Persons summoned under the Sanitary Acts.*

Sanitary Acts.	Number of Persons.	Convicted.	Dis-charged.	Nuisances abated and Summonses withdrawn on payment of Costs.
Public Health Act....	48	10	..	33
Selling and Exposing for Sale Unsound Food .....	3	3	..	..
Adulteration of Food Act .....	1	1	..	..
Bye-Laws .....	1	1	..	..
Total .....	53	15		33

*Table shewing the amount of Bad Meat and other unwholesome Articles of Food seized and destroyed during 1879.*

Class of Food Seized.	No. of Seizures.	Weight in Pounds Seized and Destroyed.	No. of Persons Summoned.	No. of Convictions.	Amount of Penalties Imposed.
Beef and Mutton .....	9	2390	2	2	7s. 6d.
Ham and Bacon.....	2	926	1	1	£5 0s.
Salt Tongues .....	..	..	..	..	..
Fish .....	..	..	..	..	..
Apples (2 Casks).....	1	..	..	..	..
Cheese .....	1	56 lbs.	..	..	..
Total .....	13		3	3	£5 7 6



## XX.

*Nuisances reported and Notices served by Sanitary  
Inspectors during the Year.*

Number of Nuisances Reported .....	2,224
Nuisance abated without formal Notice .....	129
Nuisances abated after Notice without proceedings .....	1,694
Nuisances abated after proceedings had been taken .....	258
Number of formal Notices given .....	3,604
Complaints made at Office, and attended to by Inspectors	272
Order of Magistrates to abate Nuisances .....	4

*Notices served.*

To Repair Defective House Drains, Roofs, Water-closets, Ash-pits, &c. ....	1,186
To White-wash Premises, Cleanse Rooms, Yards, Out- houses, &c. ....	1,166
Defective Spouts .....	547
Close Cellar, Dwellings, and abate overcrowding .....	3
To abate Smoke Nuisances .....	2
To Cleanse and Disinfect Houses wherein Zymotic Diseases had occurred .....	486
Total .....	3,390

*Ash-pits Cleansed by Corporation.*

Orders taken by Inspectors during inspection, and Private Orders received at the Office.....	10,148
Total .....	10,148
Number of Loads removed during 1879.....	35,529
Total.....	35,529

J. HUNTLEY, PRINTER, NILE STREET, SUNDERLAND.



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DEATHS REGISTERED IN THE BOROUGH OF SUNDERLAND DURING THE YEAR 1879.



