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County Borough of Tynemouth.

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THIRTIETH

# ANNUAL REPORT

OF THE

## Medical Officer of Health,

With the Second Annual Report upon the

### Medical Inspection of School Children.

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1910.

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County Borough of Tynemouth  
PUBLIC HEALTH COMMITTEE.

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*Chairman*:—ALDERMAN GEORGE D. THOMPSON.

*Vice-Chairman*:—ALDERMAN JOHN W. HALL.

THE MAYOR ALDERMAN THOS. COULSON.

ALDERMAN BOLTON.	COUNCILLOR FRATER.
"    DODDS.	"    GIBSON.
COUNCILLOR BILTON.	"    HUTCHINSON.
"    COATS.	"    PORTER.
"    CONNACHER.	"    STEELE.
"    DOUGLASS.	"    TEBB.
"    ELLIS.	"    TELFORD.

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## STAFF.

*Medical Officer of Health, Medical Officer to the Education Authority, and  
Medical Superintendent of Moor Park Isolation Hospital:*

JAMES A. HISLOP, M.D. (Brux.); L.R.C.P.; D.P.H.

*Assistant Medical Officer of Health:*

JAMES McCONNELL, M.B., B.S. (Dur.) B.Hy.; D.P.H.

*Chief Sanitary Inspector and Inspector under the Food and Drugs Acts:*

GIBSON EDWARDS, A.R.S.I.

*Assistant Inspectors:*

WILLIAM L. McQUEEN, A.R.S.I.

JAMES STANLEY, A.R.S.I.

*Superintendent of Cleansing Department:*

THOMAS C. STORER.

*Matron of Infectious Diseases Hospital:*

MISS M. EWART.

*Clerks:*

WILLIAM SADLER, Chief Clerk.

TOM LITTLE, Junior Clerk.

STANLEY MOFFAT, Junior Clerk.

*Disinfecter*:—HENRY HODGSON.

PUBLIC HEALTH OFFICE,  
TYNEMOUTH,  
1ST APRIL, 1911.

*To the Mayor, Aldermen and Councillors,  
of the County Borough of Tynemouth.*

MADAM AND GENTLEMEN,

I have the honour of submitting to you my second Annual Report, being the 30th Report presented to you by successive Medical Officers.

At the close of last year the School Medical Work was co-related with the Public Health Work, and during the present year it has been found necessary to increase the office accommodation. This has been done by taking in a part of the building adjoining the Health Office, whereby three additional rooms have been secured, thus providing a room for the Assistant Medical Officer, a waiting room for scholars and parents, and a room for the Chief Sanitary Inspector.

The clerical work has been performed by the Staff of the Health Department, but at the end of the year the pressure of work was found to be so great, that the Committee in conjunction with the Education Authority agreed to the appointment of an extra clerk to cope with the demands made on the clerical staff.

The report upon the Medical Inspection of School Children, which has been prepared by Dr. McConnell, is issued with this report and will be found under Part iv.

I take the opportunity of expressing my indebtedness to the Chairman and Members of the Health Committee, for the assistance and courteous consideration which they have at all times extended to me; to my colleague and members of the Staff of the Health Department, as well as to other Corporation Officials for their valuable and ready help at all times.

I am, Madam and Gentlemen,

Your obedient Servant,

JAMES A. HISLOP,

Medical Officer of Health.

## Statistical Summary.

1910.

---

Area of the Borough	...	...	...	...	4,288 Acres.
Inhabited Houses (Census 1901)	...	...	...	...	6,779
Population (Census 1901)	...	...	...	...	51,366
Population (Estimated 1910)	...	...	...	...	56,378
Births ...	...	...	...	...	1,788
Birth Rate per 1,000 of the Population	...	...	...	...	31·7
Deaths	...	...	...	...	971
Death Rate per 1,000 of the Population	...	...	...	...	17·2
Death Rate from Zymotic Diseases	...	...	...	..	1·77
Infantile Mortality Rate ...	...	...	...	...	125
Death Rate from Pulmonary Tuberculosis	...	...	...	...	1·08

## Legal Summary.

### LOCAL ACTS.

Tynemouth Improvement Act	...	...	...	...	1866
Tynemouth Corporation Water Act	...	...	...	...	1897
do.	do.	do.	...	...	1898
do.	do.	do.	...	...	1907
Tynemouth Corporation Act	...	...	...	...	1910

### ADOPTED ACTS.

	Date of Adoption.
Public Library Act	13th July, 1868.
Infectious Diseases (Notification) Act 1889...	23rd October, 1889.
Infectious Diseases (Prevention) Act 1891 ...	11th September, 1891.
Public Health Acts Amendment Act 1890 :—	
Part II.	23rd March, 1892.
Part III.	9th February, 1891.
Part IV.	21st April, 1896.
Public Health Acts Amendment Act 1907 :—	
Part II. Sections 15 to 27 and 29 to 33 ...	} 28th August, 1909.
Part III. Sections 34 to 47 and 49 to 51 ...	
Part IV. Sections 52 to 65 and 67, 68 ...	
Parts V., VI. and X. ...	
(Certain adaptations were made by the Local Government Board with regard to Sections 25, 27, 35, 38, 59, 75 and 92) ...	
Part VII. Sections 79 to 86 ...	} 1st February, 1909.
Part VIII. Sections 88 to 90 ...	
Part IX. ...	

I.

*Vital Statistics.*

## VITAL STATISTICS.

### POPULATION.

THE POPULATION at the census of 1891 was 46,588 and had increased at the census of 1901 to 51,366.

The population of the Borough at the 30th June, 1910, as estimated by the Registrar General was 56,378, being an increase of 570 persons compared with last year.

The number of inhabited houses at the census of 1901 was 6,779 and gave an inhabited house rate of 7·5 persons per house.

The *natural* increase of population or the excess of the number of births over deaths was 817.

THE AREA of the Borough is 4,288 acres, exclusive of 84 acres covered by inland water.

#### DISTRIBUTION AND DENSITY OF POPULATION.

LOCALITIES.	Population Estimated to 30th June, 1910.	Area in Acres.	Persons to the Acre.
Township of Chirton ... ..	18064	2375	7·6
"    Cullercoats ... ..	1875	15	125·0
"    North Shields ... ..	5433	39	139·2
"    Preston ... ..	4580	645	7·1
"    Tynemouth ... ..	21814	} 1210	{ 21·8
Village of Tynemouth ... ..	4612		
Un-named area from Murton...	—	4	—
Borough of Tynemouth ... ..	56378	*4288	13·1

\* Exclusive of 2 acres in Tynemouth, 81 in Chirton, and 1 in Preston Townships which are covered by water.

From this table it will be seen that the average density of population was 13·1 persons per acre, but varies in different districts from 139·2 persons to the acre in the Township of North Shields to 7·1 in Preston.

## BIRTHS.

The number of Births registered during the year was 1,788 being a decrease of 86 births compared with last year. The birth rate was 31·7 per 1,000 of the population.

The births with corresponding rates were distributed as follows :—

BIRTHS AND BIRTH RATES.

LOCALITIES.	Births.	Birth Rate per 1,000 of Population.	Number of Illegitimate Births.	Percentage of Illegitimate Births to Total Births.
Township of Chirton ...	635	35·1	16	2·51
„ Cullercoats	59	31·4	4	6·77
„ No. Shields	141	25·9	8	5·67
„ Preston ...	164	35·8	10	6·09
„ Tynemouth	687	31·4	17	2·47
Village of Tynemouth	70	15·1	4	5·71
Workhouse ...	32	—	20	62·5
Borough of Tynemouth .	1788	31·7	79	4·41
Mean of 10 years } 1900 to 1909 }	1786	33·4	65	3·63

The highest birth rates occurred in the Townships of Chirton and Preston, and the lowest in the village of Tynemouth.

The birth rate of Tynemouth is considerably higher than that of England and Wales, or of the 77 great towns, as shown by the following figures :—

PERIOD.	England & Wales.	Great Towns.	Tynemouth.
1901—1905	28·1	28·9	33·8
1906	27·0	27·9	32·4
1907	26·3	27·0	32·8
1908	26·5	27·0	34·3
1909	25·6	25·7	33·5
1910	24·8	25·0	31·7

It will be seen that there has been a gradual decline in the birth rate of England and Wales as well as the great towns, whereas the birth rate in Tynemouth has had little variation. The rate for the present year is, however, slightly under the average of previous years, being 1·8 per 1,000

less than 1909, and 1·7 under the average of the previous ten years, 1900 to 1909, which gave an average birth rate of 33·4 per 1,000 of the population.

ILLEGITIMACY.—Of the 1,788 births registered 79 were illegitimate, or 4·41 per cent. This is in the proportion of 955·8 legitimate and 44·2 illegitimate births in every 1,000. The rate is ·78 per cent. higher than the average of the past ten years, and is highest in the Township of Cullercoats, where the percentage of illegitimate to total births reached 6·77. Of the 32 births occurring within the Workhouse, 62·5 per cent. were illegitimate.

## DEATHS.

The total number of deaths registered within the Borough was 1,035, but for comparative purposes certain corrections require to be made as follows :—

### DEATHS IN PUBLIC INSTITUTIONS.—

#### (a) WITHIN THE BOROUGH.

Institution.	Total Deaths.	Deaths of Non-Residents.
Jubilee Infirmary ... ..	30	3
Union Workhouse ... ..	167	63
Moor Park Hospital... ..	8	0
	205	66

There were thus 66 deaths of non-residents in public institutions within the Borough.

Particulars of these deaths have been notified quarterly to the Medical Officers of the respective districts. Twenty-two deaths, which have not been accepted or transferred, have been retained, and are included in the deaths belonging to the Borough.

#### (b) OUTWITH THE BOROUGH.

Institution.	Deaths.
Royal Infirmary, Hull ... ..	1
Union Workhouse, Gateshead ... ..	1
	2

It is necessary, therefore, to deduct 66 deaths of non-residents from, and to add 2 deaths of residents outwith the Borough to the total deaths, 1,035 registered within the Borough, in order to arrive at the actual number to be credited to Tynemouth.

The nett deaths were, therefore, 971, which is equal to a death rate of 17·2 per 1,000 of the population.

The year 1907 gave the lowest death rate recorded for the Borough, namely 16·9. It will be seen from the table showing the comparative death rates that the rate for Tynemouth is practically the same as the two previous years, but it is still considerably above the death rate for England and Wales and that of the great towns.

COMPARATIVE DEATH RATE PER 1,000 IN PREVIOUS YEARS.

PERIOD.	England & Wales.	Great Towns.	Tynemouth.
1901—1905	15·9	17·2	19·3
1906	15·4	15·9	18·8
1907	15·0	15·4	16·9
1908	14·7	14·9	17·2
1909	14·5	14·7	17·1
1910	13·4	13·4	17·2

The following table shows the total deaths and death rates, distributed according to the locality in which they occurred :—

DEATHS AND DEATH RATES.

LOCALITIES.	Total Deaths.	Death Rate per 1,000 of Population.
Township of Chirton ... ..	307	16·9
"    Cullercoats ... ..	18	9·6
"    North Shields ... ..	94	17·3
"    Preston ... ..	60	13·1
"    Tynemouth ... ..	453	20·7
Village of Tynemouth .. ..	39	8·4
Borough of Tynemouth ... ..	971	17·2
Mean of 10 years—1900-1909...	1001	18·7

The rates for the present year show a slight increase over 1909 in the Townships of Chirton, North Shields, and Tynemouth, but show a decrease

in Cullercoats, Preston, and the Village of Tynemouth. The death rate for the whole Borough show a decrease of 1·5 compared with the average rate of the previous ten years.

THE DEATHS QUARTER BY QUARTER WERE :—

PERIOD.	Number of Deaths.	Death Rate per 1,000.
First Quarter ... ..	231	16·3
Second Quarter... ..	222	15·7
Third Quarter ... ..	223	15·8
Fourth Quarter... ..	295	19·1

The increase in the number of deaths recorded during the last quarter of the year was in a great measure due to the number of deaths from measles and respiratory diseases.

MORTALITY AT DIFFERENT AGES.—The mortality rates at different age groups per 1,000 of the population were :—

DEATHS.	Age Group.	Rate per 1,000 of Population.
224	Under 1 year ... ..	4·0
165	1 to 5 years ... ..	2·9
79	5 to 25 years ... ..	1·4
290	25 to 65 years ... ..	5·1
213	65 years and upwards ...	3·8
971	All Ages.. ... ..	17·2

INFANTILE MORTALITY.—There were 224 deaths of children under 1 year of age, which is in the proportion of 125 deaths to every 1,000 children born as compared with an average of 149 for the previous 10 years.

The following are the Infantile Mortality Rates for Tynemouth, compared with those of the great towns and England and Wales for the last ten years :—

COMPARATIVE INFANTILE MORTALITY RATES.

	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
Tynemouth ...	175	150	160	152	159	151	122	138	127	125
Great Towns ...	168	144	144	160	140	155	127	128	118	115
England & Wales	151	133	132	146	128	133	118	121	109	106

The rate for the present year is 2 per 1,000 births less than 1909, and 24 per 1,000 less than the average of the previous ten years.

The infantile mortality rate during the quinquennial period 1900-1904 was 159 ; and for the period 1905-1909 the rate was 139.

It is clear, therefore, that a gradual decline is taking place in the mortality of infants when the rate for the present year, 125, is compared with the two previous quinquennial periods, but the figure is considerably higher than the average of the great towns, which had a rate of 115 deaths per 1,000 births for the year 1910.

#### INFANTILE MORTALITY RATE IN EACH LOCALITY.

LOCALITY.	Births.	Deaths under 1 year.	1910 Rate per 1,000 Births.	1909 Rate per 1,000 Births.
Township of Chirton ..	635	85	133	123
"    Cullercoats	59	4	68	88
"    No. Shields	141	26	184	213
"    Preston ...	164	11	67	109
"    Tynemouth	687	87	126	122
Village of Tynemouth	70	4	57	99
Workhouse ... ..	32	7	—	—
Borough of Tynemouth	1788	224	125	127

The figures for each locality show a slight improvement over previous years, with the exception of Chirton and Tynemouth, where the rate is a little higher than 1909. The infantile mortality rate was lowest in the Village of Tynemouth and highest in North Shields.

The causes of death during 1910 and the two previous years were as follows :—

Cause.	1910	1909	1908
Common Infectious Diseases ... ..	12	13	11
Diarrhoeal Diseases ... ..	24	22	39
Wasting Diseases ... ..	92	112	112
Tuberculous Diseases ... ..	6	5	8
Other Causes ... ..	90	87	92
	—	—	—
	224	239	262

Of the deaths resulting from infectious diseases the chief causes were measles and whooping cough.

Diarrhœal diseases, of which there are 24 fatal examples, were probably due to ignorance of the proper management and feeding of the infants. When the mother is in good health the infant should be fed upon breast milk for the first few months of life. If bottle feeding is absolutely necessary the greatest care must be exercised to ensure the purity and cleanliness of the milk given. It should be stored in a cool place, and carefully protected from dust and flies, which may readily convey the germs of disease. Bottles used for the purpose of feeding should be scalded with boiling water immediately after use, and long tube bottles should be entirely discarded.

Wasting diseases were accountable for 92 deaths. This group may be due to ante-natal influences, but in many instances it is due to improper feeding. Poverty may also be reckoned as a factor inducing a state of low vital resistance and enfeeblement.

The 90 deaths which fall under the head of other causes include 29 certified as convulsions, 21 bronchitis, and 19 pneumonia.

There is no doubt that many fatal cases of convulsions may be ascribed to errors of diet, affecting indirectly the delicate nervous mechanism of the infant and resulting in death. The improper feeding of infants may also have an indirect bearing on the deaths attributed to pneumonia and bronchitis, while the harmful effects of a badly ventilated or overcrowded house, and the sudden change of temperature in winter, determine the fatal issue.

The appointment of a Health Visitor and the adoption of the Notification of Births Act is under consideration.

II.

*Records of Disease.*

## RECORDS OF DISEASE.

### ZYMOTIC DISEASES.

The principal Zymotic Diseases commonly recognised are seven in number, namely, Smallpox, Scarlet Fever, Diphtheria, Continued Fevers, (including Typhoid or Enteric and Typhus) Measles, Whooping Cough and Epidemic Diarrhœa. The following Table shows the deaths from these diseases and the mortality rate per 1,000 of the population, distributed according to the districts in which they occurred.

ZYMOTIC DEATHS AND DEATH RATES.

LOCALITIES.	Deaths from Seven Chief Zymotic Diseases.	Death Rate per 1,000.
Township of Chirton ... ..	32	1·77
"    Cullercoats ... ..	3	1·60
"    North Shields ... ..	7	1·28
"    Preston ... ..	5	1·09
"    Tynemouth ... ..	49	2·24
Village of Tynemouth ... ..	4	0·86
Borough of Tynemouth ..	100	1·77

The mortality rate was lowest in Tynemouth Village and highest in Tynemouth Township. The rate for the Borough as a whole is slightly higher than during the last two years, due to the increase in the number of deaths from diarrhœa and measles.

DEATH RATES PER 1000 SINCE 1901.

	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
Rate	2·23	1·76	1·33	1·82	1·38	2·53	1·79	1·46	1·27	1·77

The diseases, to which the Infectious Diseases (Notification) Act, 1889, applies, are :—Smallpox, Cholera, Diphtheria, (including Membranous Croup) Erysipelas, Scarlet Fever, and the Fevers known by any of the following names :—Typhus, Typhoid, Enteric, Relapsing, Continued or Puerperal.

The number of notifications received from medical practitioners during the year was 223 a decrease of 133 on the previous year, due to the lessened prevalence of infectious diseases generally.

The notifications since the year 1901, and the deaths from notifiable infectious diseases are shown in the following table.

NOTIFIABLE INFECTIOUS DISEASES.

Table showing the number of Notifications and Deaths.

YEAR.	Smallpox.	Deaths.	Scarlet Fever.	Deaths.	Diphtheria.	Deaths.	Enteric Fever.	Deaths.	Typhus Fever.	Deaths.	Continued Fever.	Deaths.	Puerperal Fever.	Deaths.	Erysipelas.	Deaths.
1901	4	...	270	12	44	10	21	10	...	...	...	...	2	2	76	1
1902	83	3	348	8	37	6	20	4	...	...	...	...	2	1	103	3
1903	111	4	413	11	45	12	17	5	...	...	...	...	2	1	107	1
1904	95	9	131	2	16	4	13	4	...	...	...	...	1	...	84	3
1905	39	1	67	1	43	6	17	2	...	...	...	...	7	7	85	1
1906	1	...	142	6	69	9	20	5	...	...	3	...	2	...	83	1
1907	...	...	146	5	56	10	6	...	...	...	...	...	5	3	97	4
1908	...	...	127	2	61	7	16	3	1	...	...	...	1	...	61	1
1909	...	...	200	13	81	12	10	1	1	...	...	...	1	1	63	1
1910	...	...	94	3	78	11	8	4	...	...	...	...	3	1	40	0

SMALLPOX—Cases notified 0.

During the year 6 contacts were kept under observation. These contacts were seamen or passengers returning from infected ports, or discharged from a vessel in which a case of the disease had occurred during the voyage. In no instance did any contact develop smallpox.

No case of smallpox has occurred within the Borough since 1906.

The number of children who are unvaccinated is rapidly increasing, and the susceptibility of the community to the danger of a widespread and severe type of the disease is, in proportion, becoming greater each year.

The last Vaccination Act came into force on the 1st January, 1907. From that date any person who makes application to a Justice of the Peace can obtain a certificate of exemption on the ground of having conscientious objection to the performance of vaccination.

The result is seen from the following figures which Mr. Percival, Clerk to the Board of Guardians, has kindly extracted from the vaccination register.

## VACCINATION RETURNS 1907—1909.

Year.	1	2	3	4	5	6	7	8	9
	Births.	Vaccinated.	Insusceptible.	Dead.	Conscientious Objectors.	Postponed	Removed.	Unaccounted.	Percentage not Vaccinated including Cols. 5, 6, 7, 8.
1907	1796	1,392	6	182	94	55	15	52	12·0
1908	1896	1,255	7	180	350	24	24	51	23·9
1909	1875	1,002	11	183	515	26	26	79	36·2

These figures speak for themselves, and show the increasing number of exemptions which are being granted each year.

CHOLERA.—Twenty-three persons, who were seamen or passengers returning from an infected port, were kept under observation, but no one developed the disease.

PLAGUE.—Five persons, returning from an infected port, were under observation. None contracted the disease.

In the month of November the Local Government Board issued a Memorandum upon Plague, and an Order, conferring upon Local Authorities in England and Wales powers with regard to the destruction of rats in districts infected or threatened with plague, or where there is an unusual mortality among rats.

The memorandum points out that the disease, for administrative purposes, may be regarded as a disease of rats, which incidentally and occasionally attacks man. Fleas form the intermediaries between the diseased rat and man, and if the fleas of infected rats are excluded from access to human beings, plague will seldom, if ever, spread from animal to man.

The most important recommendations are summarised thus :—

- (1) Persistently and systematically destroy all rats.
- (2) Remove and obliterate their nests, burrows, and habitual haunts.
- (3) Make each dwelling as far as practicable rat proof, and remove all known harbourage for rats in or near dwellings.

- (4) At the same time do not allow waste food (whether for human beings, chickens, or other animals) to accumulate in or about the house.

SCARLET FEVER.—Cases notified, 94 ; deaths, 3 ; fatality per cent., 3·1.

The number of cases notified shows a decrease of 106 compared with the previous year, and has not been so low since the year 1905, when the number notified was 67.

The type of the disease was milder, and the percentage of fatal cases was 3·4 less than 1909.

Several cases were so mild that they were only discovered after desquamation had taken place or another member of the family became ill.

The largest number of cases were notified during the months of January and February, and the disease gradually declined towards the close of the year almost to extinction, only one case being notified during the whole of the month of December.

The cases occurring in each locality month by month was as follows :—

LOCALITY.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Chirton ... ..	11	11	9	6	1	2	1	—	2	—	1	—
Cullercoats ... ..	—	—	—	1	—	—	—	—	1	—	—	—
North Shields ... ..	—	—	1	1	—	—	—	—	2	1	1	—
Preston ... ..	4	1	—	1	—	2	—	1	1	—	—	—
Tynemouth ... ..	11	2	3	2	—	2	4	1	—	4	—	—
Tynemouth Village	—	—	—	—	1	—	—	1	—	—	—	1
Total...	26	14	13	11	2	6	5	3	6	5	2	1

DIPHTHERIA.—Cases notified, 78 ; deaths, 11 ; fatality per cent., 14·1.

The number of cases and fatality rate is slightly less than last year.

The cases occurring in each locality month by month was as follows :—

LOCALITY.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Chirton ... ..	6	3	3	2	3	1	8	2	1	4	3	2
Cullercoats ... ..	—	—	—	—	—	—	1	—	—	—	1	—
North Shields ... ..	—	—	—	—	—	—	—	—	—	—	—	—
Preston ... ..	4	1	1	3	—	—	1	—	1	—	1	—
Tynemouth	5	1	—	3	—	—	4	1	1	—	1	1
Tynemouth Village	1	1	—	—	3	—	—	1	1	—	2	—
Total...	16	6	4	8	6	1	14	4	4	4	8	3

The largest number of cases were notified in January and July, but the disease was not epidemic at any time throughout the year.

The following statistics with reference to the disease in previous years are of interest :—

	1905	1906	1907	1908	1909
Cases Notified ...	37	69	56	61	81
Deaths ...	6	9	10	7	12
Fatality per cent. ...	16·2	13·0	17·8	11·5	14·8

MORTALITY RATE PER 1000 COMPARED WITH ENGLAND AND WALES.

	1905	1906	1907	1908	1909	1910
Tynemouth ...	·11	·16	·17	·12	·21	·19
England and Wales...	·16	·17	·16	·15	·14	·12

Any delay in the recognition of this disease prevents the adoption of useful curative and preventive measures.

In order to assist medical practitioners in the early diagnosis of the disease, a bacteriological laboratory has been provided by the Local Authority, where swabs are examined free of charge, and it is satisfactory to note that increasing advantage is being taken of this provision.

The number of swabs examined this year was 281, or 76 more than in 1909, and an increase of 163 over 1908.

A circular letter was also sent out during the month of May to all medical men practising in the Borough drawing attention to the facilities offered, and requesting that a swab be sent from the throat of all convalescent cases which had been treated at home, in order to ascertain its freedom from the bacillus of diphtheria.

This suggestion has been followed by a number of the practitioners, and it is to be desired that in every case the practice of taking "clearance swabs" will be adopted in future.

Two negative "clearance swabs" are obtained from every case treated in hospital before discharge.

Parents, unfortunately, have often difficulty in recognising the dangerous character of the ailment, and delay too long in sending for medical advice. The medical practitioner, on the other hand, may also be misled if he awaits the characteristic signs of the disease, as some cases present signs which can only be diagnosed by bacteriological examination.

The early recognition of the ailment is of the greatest importance, in that it allows isolation and the prompt administration of Antitoxin, the value of which as a curative agent, if given in the early stage, is universally recognised.

In the month of August the Local Government Board issued an order, made under Section 133 of the Public Health Act 1875, authorising Local Authorities to provide a temporary supply of diphtheria Antitoxin, and of medical assistance in connection therewith, for the poorer inhabitants of their district.

A report upon the subject was submitted to the Health Committee on the 27th September, and it was resolved that preliminary doses for all patients who will be admitted to hospital, and for all poor inhabitants of the district, may be obtained free of cost. The arrangement would also include the possible requirements of the Poor Law Medical Officers.

A circular letter was thereafter addressed to all medical practitioners, pointing out that :—

- (a) As success in the treatment of diphtheria depends on the *early* administration of Antitoxin, patients who present clinical symptoms of diphtheria should receive Antitoxin at home, pending removal to hospital, and without waiting the result of bacteriological examination.
- (b) In accordance with a resolution of the Council, arrangements have been made whereby diphtheria Antitoxin will be supplied free of cost to all poor patients if application be made at the Health Office during office hours, or at the isolation hospital after office hours.
- (c) In making these arrangements the Local Authority have in view the necessity of ensuring that every poor patient will have the benefit of Antitoxin treatment at the earliest possible moment.

TYPHOID FEVER.—Cases notified, 8; deaths, 4; fatality per cent., 50·0.

The cases occurring in each locality month by month were as follows :—

Locality.	Jan.	Feb.	Mar.	Nov.
Chirton ...	—	1	—	1
Cullercoats ...	—	—	—	1
North Shields ...	1	1	—	—
Tynemouth ...	—	1	1	1
Total ...	1	3	1	3

There was no epidemic prevalence of the disease, but the illnesses were of a severe type. No connection could be traced between the cases, nor was there any suspicious history of previous illness in the families affected. The number of cases notified during the previous two quinquennial periods was as follows :—

Period.	Cases Notified.	Quinquennial Average.
1900-1904	92	18·4
1905-1909	69	13·8

**TYPHUS FEVER.**—There were no notifications of this disease.

**ERYSIPELAS.**—Cases notified, 40; deaths, 0.

**PUEPERAL FEVER.**—Cases notified, 3; deaths, 1; fatality per cent., 33·3.

None of the cases occurred in the practice of a midwife.

One of the cases was that of a non-resident who was admitted to the workhouse and died there.

**MEASLES.**—Deaths 41. The deaths were distributed as follows :—

Chirton, 7. North Shields, 3. Preston, 1. Tynemouth, 29.  
Tynemouth Village, 1.

The deaths recorded during previous years were :—

	1904	1905	1906	1907	1908	1909
Deaths ...	29	6	19	23	14	13

Of the total number of deaths during the present year, 39 were under 5 years of age.

Numerous visits were made to homes and to schools where cases had occurred.

The following leaflet was also prepared and distributed to parents.

### **Measles.**

**MEASLES** is a highly infectious disease, even in the early stage before the rash appears, where the only **SYMPTONS** may be slight cough, sneezing, watery eyes, or sore throat.

It is spread by the mingling of the sick with the healthy, and the patient should therefore be **CAREFULLY ISOLATED** and neighbours' children should not be allowed to visit the infected house.

It is important to remember that it is NOT A TRIVIAL COMPLAINT, but a very serious illness which frequently gives rise to very grave complications.

THE YOUNGER THE CHILD THE GREATER THE DANGER.

Many children lose their lives because parents allow them to go out of the house thinking that the child has only a slight "COLD" when it is really MEASLES.

Children suffering from Measles must be kept from SCHOOL for a period of FOUR WEEKS.

Cases of Measles occurring amongst SCHOOL CHILDREN, should be at once reported to the HEAD TEACHER.

The prevalence of Measles amongst School Children is dealt with in the School Report.

WHOOPIING COUGH.—Deaths, 19.

The deaths were distributed as follows :—

Chirton, 7. Preston, 3. Tynemouth, 7. North Shields, 2.

The deaths recorded during the previous five years were :—

	1905	1906	1907	1908	1909
Deaths ...	35	4	28	20	18

DIARRHOEA.—Deaths, 22.

The deaths were distributed as follows :—

Chirton, 9. Cullercoats, 1. North Shields, 1. Tynemouth, 9.  
Tynemouth Village, 2.

14 deaths occurred in children under 1 year of age and 6 deaths between the ages of 1 and 5 years.

The deaths recorded during the previous five years were :—

	1905	1906	1907	1908	1909
Deaths ...	24	42	30	35	13

The number of deaths during the present year shows a decrease of 6 under the average of the last 5 years.

The association of this disease with the earlier periods of infant life is very marked, and it seems certain that the infection is conveyed by food, especially milk, while improper feeding increases the predisposition to attack. Bottle fed children seem particularly liable to contract the disease. Its seasonal prevalence is also marked as most of the cases occur during autumn. Of the 22 deaths registered, 12 occurred during the months of September and October.

## TUBERCULOUS PHTHISIS.—Deaths, 61

The deaths and corresponding mortality rates per 1000 of the population during the preceeding 5 years were as follows :—

	1906	1907	1908	1909	1910
Deaths ... ..	96	88	75	64	61
Rate per 1000 ..	1·77	1·60	1·35	1·14	1·08

It is satisfactory to note that the mortality rate has steadily fallen during the last five years.

Of the 61 deaths, 40 occurred in private residences, and 21 in Public Institutions.

The distribution of the deaths with the mortality rate in each locality was as follows :—

LOCALITY.	Deaths.	Mortality Rate.
Chirton ... ..	14	·77
Cullercoats ... ..	1	·58
North Shields ... ..	6	1·10
Preston ... ..	6	1·31
Tynemouth ... ..	29	1·32
Tynemouth Village ... ..	5	1·08
Borough of Tynemouth ...	61	1·08

NOTIFICATION.—No system of general notification is in force in the borough, but the Public Health (Tuberculosis) Regulations 1908 came into force on the 1st January, 1909, and provide for the notification to Medical Officers of Health of all cases of pulmonary tuberculosis occurring amongst the inmates of Poor Law Institutions, or of persons under the care of District Medical Officers. Provision is also made for the intimation by the superintending officers of the institution of the address of any person leaving the institution, and by the relieving officer, for any change of address of a notified person.

Many of these cases are vagrants who have no fixed address, and sometimes a difficulty is experienced in trying to trace them after leaving the institution, as a fictitious address may be given, or the person may leave the district entirely without notifying his intention of doing so.

Fifty notifications of persons suffering from pulmonary tuberculosis were received during the year from the following officers, and are allocated according to the quarter in which they were received, thus :—

	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.
Medical Officers of Poor Law Institutions ...	9	9	7	8
Superintendent Officers	2	5	3	2
District Medical Officers	1	1	1	2
Relieving Officers ..	-	—	—	—
	12	15	11	12

Thirty-seven cases were notifications of males and thirteen were females. 28 cases were notified once, 7 cases twice, 1 case three times, and 1 case five times.

Cases were visited after notification, and inquiry was made regarding possible overcrowding and the health of the other inmates.

A card has been prepared which gives advice to consumptive patients, and the necessity for the careful disposal of the sputum was emphasised, and explained, while the benefit of living in the open air, and the need for sleeping alone, is impressed upon the patient. The precautions to be observed by those in attendance were also pointed out, and premises were disinfected in case of removal or death.

The question of isolation and treatment of consumptive cases in one of the wards of the infectious diseases hospital, when the accommodation was not required for the isolation of the ordinary cases of infectious disease, was under consideration at the end of the year.

CANCER AND MALIGNANT DISEASES.—Deaths, 46 ; mortality rate per 1,000, '81.

The deaths and rates for previous years were as follows :—

	1901	1902	1903	1904	1905	1906	1907	1908	1909
Deaths ...	33	24	33	37	46	36	33	42	28
Rate ...	'63	'46	'62	'69	'85	'66	'60	'76	'50

RESPIRATORY DISEASES.—Deaths, 180 ; mortality rate per 1,000, 3·1.

The deaths in previous years were as follows :—

	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
Bronchitis ...	81	118	92	113	109	101	93	114	76	80
Pneumonia ...	38	56	44	33	43	42	39	37	74	84
Other Respiratory Diseases } }	8	13	5	11	14	8	9	2	15	16
Total...	127	187	141	157	166	151	141	153	165	180

The number of deaths arising from respiratory diseases was greater than in any year since 1902, and 89 of the deaths occurred in children under 5 years of age.

ANTHRAX.—In the month of April a case suspicious of anthrax was seen in conjunction with a local medical man. Specimens from the postule examined microscopically showed anthrax like bacilli, a result which was later confirmed by animal inoculation.

The patient, a butcher's assistant, had been ill for six days before consulting a medical man, but was immediately placed under appropriate treatment and made a good recovery.

The matter was reported to the Inspector under the Contagious Diseases Animals Act for investigation, and the butcher's premises were thoroughly disinfected.

None of the other workers in the butcher's premises were affected.

III.

*General Sanitation.*

## GENERAL SANITATION.

### HOSPITALS.

MOORPARK HOSPITAL.—Ordinary infectious diseases are treated at Moorpark Hospital, which has accommodation for 50 patients. The number of cases admitted during the past year was 90.

At the beginning of 1910, 19 patients were in hospital, and during the year 90 were admitted, making a total of 109 under treatment. Of these 95 were discharged recovered, and 8 died, leaving 6 in hospital at the end of the year.

#### ADMISSIONS, DISCHARGES AND DEATHS, DURING 1910.

DISEASE.	Patients in Hospital, 1st January, 1910	Admitted.	Discharged.	Died.	Remaining in Hospital, 31st Dec., 1910.
Scarlet Fever...	15	60	69	2	5
Diphtheria ...	1	24	22	3	—
Enteric Fever..	2	6	4	3	1
Typhus Fever	—	—	—	—	—
Total...	19	90	95	8	6

The total number of days spent in hospital by patients during the year was 4,805, or an average duration of 44·0 days per patient.

The total number of days and the average duration of residence for each class of disease was as follows :—

	Scarlet Fever.	Diphtheria.	Enteric.
Total days in Hospital ...	3905	671	229
Average number of days per patient ...	51·3	26·8	28·6

In the month of March sanction was given for the purchase of a supply of new linen for hospital requirements, and the Committee also agreed that the matron should be authorised to engage the services of a laundress. In the month of October the question of appliances in case of fire was under consideration. The rubber and canvas hose were thoroughly tested, and it was found that the lengths of rubber hose were all more or less unsatisfactory, and that a number of lengths of the  $2\frac{1}{2}$  inch canvas hose were leaking. It was suggested that Minimax fire extinguishers should be introduced as a first aid fire extinguishing appliance, being more readily and quickly manipulated by a nurse than a cumbersome rubber hose, and that the  $2\frac{1}{2}$  inch canvas hose be replaced where necessary by new lengths of pipe.

These suggestions were agreed to, and 6 Minimax extinguishers have been installed in the various pavilions and administration buildings. The canvas hose has also been renewed, and three extra fire plugs have been fixed at different parts of the grounds, so that any building can be easily reached, and a good pressure of water obtained direct from the water main.

The vans for the removal of infected clothing and bedding, and the return of disinfected articles, made 360 journeys. The disinfector and boiler have undergone some slight repairs, and the number of days that the disinfector was in use amounted to 100.

**PERCY SQUARE HOSPITAL.**—The administration block of this hospital, which was used for the isolation of smallpox, was burned down on the 25th September, 1909, and the caretaker resigned his post on the 15th January, 1910. A temporary arrangement has been made whereby cases of smallpox will be isolated at Whiteleas Smallpox Hospital, South Shields, but as a North East Durham Joint Smallpox Hospital Board has been formed, which will include South Shields, and as the site of the Percy Square Hospital may be acquired in connection with the Tynemouth Corporation Act 1910, it was decided not to rebuild. A special sub-committee has been appointed to consider the whole question, and a new site near the Moorpark Isolation Hospital has been under consideration.

## BACTERIOLOGICAL LABORATORY.

The laboratory was equipped in 1907 to assist medical practitioners in the diagnosis of cases of infectious disease.

During the past year the number of specimens examined was 590, and it is gratifying to note that this is an increase of 310 specimens upon 1909. The number of specimens examined since the laboratory was opened will be seen from the following table:—

YEAR.	Diphtheria.		Phthisis.		Typhoid Fever.		Ringworm.		Miscellaneous		Total.
	+	—	+	—	+	—	+	—	+	—	
1907	36	53	10	24	4	2	—	—	4	1	134
1908	44	74	3	16	7	5	—	—	—	2	151
1909	48	157	7	17	8	9	14	—	5	15	280
1910	80	201	24	46	4	17	169	32	7	10	590

DIPHTHERIA.—281 swabs were examined, and of these 80 were returned as positive and 201 as negative.

These were taken either from persons suspected to be suffering from diphtheria, or from contacts at home or in school.

Three positive contacts in 3 different families were discovered by swabs taken from the throats of contacts at home, after patients had been removed to hospital.

During the month of May, owing to the association of a few cases with the Priory School, all the children in the infant and junior classes were examined, and swabs taken from any throat considered suspicious.

Examination of the swabs showed three positive contacts amongst the scholars, and these were immediately excluded from school, with the result that no further cases occurred.

PHTHISIS.—70 specimens of sputum from persons suspected to be suffering from pulmonary tuberculosis were examined for the tubercle bacillus. The results were positive in 24 cases, while in 46 the organisms were not found.

TYPHOID FEVER.—21 specimens were received for examination, and of these 4 were returned as positive and 17 negative.

RINGWORM.—The laboratory has been of considerable assistance in connection with school work. 201 specimens of hair were examined for ringworm, and 169 of these were found to be positive and 32 negative.

Two specimens were also examined by animal inoculation and otherwise at the Durham College of Medicine, Newcastle, for anthrax, and of these one was positive and one negative.

Two specimens were also examined for organisms of the Gærtner group.

## HOUSING.

A very great amount of work has been accomplished this year under the Housing and Town Planning Act 1909.

Systematic inspection has been made of that part of the town adjoining the river, from the lower end of the Borough Road to Milbourn Place.

A special sub-committee has also been appointed to meet once a month to consider the reports submitted, and to determine the course of action to be taken.

In the month of September the Local Government Board issued an order making regulations with respect to the manner in which inspection of the district under Section 17 (1) of the Housing Town Planning, etc., Act 1909 shall be carried out.

Article I. requires the Local Authority to provide for thorough inspection of dwelling houses or localities in the districts, and to cause to be prepared from time to time by the Medical Officer of Health or by an officer designated by them, but acting under his direction and supervision, a list of houses of which early inspection is desirable. The Chief Sanitary Inspector has been appointed in terms of this Article to act under the direction and supervision of the Medical Officer of Health.

Article II. enumerates certain matters in relation to which inspections should be made.

Article III. prescribes the records to be kept.

Article IV. requires the Local Authority to take these records into consideration at each meeting, and to give such directions and take such action as may seem desirable, and such directions are to be noted in the records.

Article V. requires certain information to be included in the Annual Report.

Representation was made with regard to 10 houses, and closing orders were made in each case. A closing order was also issued in connection with one room, which has since been made habitable and the order withdrawn.

Five houses have been voluntarily closed by the owner, and ten houses were closed during overhaul and repair. The general nature of the defects and the number of houses inspected will be found in the Sanitary Inspector's report.

Although a register was previously kept of all houses inspected in the district, the records have now been altered to suit the requirements of the new regulations.

NEW DWELLING HOUSES.—Through the courtesy of the Borough Surveyor I am enabled to give the following table showing the number of houses erected during the last 10 years.

DWELLING HOUSES ERECTED DURING THE YEARS 1901-1910.

YEAR.	Chirton.	Cullercoats.	North Shields.	Preston.	Tynemouth.	Tynemouth Village.	TOTAL.
1901	46	..	...	30	78	33	187
1902	109	1	...	47	104	21	282
1903	84	1	...	69	45	9	208
1904	74	11	...	46	16	1	148
1905	64	...	...	74	80	9	227
1906	51	...	...	54	57	...	162
1907	89	...	...	23	48	...	160
1908	9	...	...	21	13	...	43
1909	10	3	...	15	15	...	43
1910	1	...	...	4	2	...	7

## WATER SUPPLY.

The Borough derives its domestic supply from the water works at the Font, with the exception of a few dwellings and outlying farms, which are still supplied by wells or springs.

Last year a number of details were given showing the area of the watershed the quality of the water available, capacity of the reservoir and the number and construction of the filter beds.

Owing to the moorland character of the gathering ground, which is of a peaty nature, the water as distributed is somewhat high in colour and and varies from 7° of Hazen's colour standard during the dry period, to 14°

after rainfall. Hazen's platinum colour standard is of such a strength that 100 c.c.'s contain 1 milligram of platinum. This is equal to 1 part in 100,000 and is described as 1° of colour.

A considerable amount of attention has been devoted during the year to examination of the various feeders which supply the reservoir, and as the results are important, a few observations may be of interest.

The reservoir is fed by two main streams, called the Fallowlees and the Newbiggen, which enter at the head of the reservoir. These are supplied by a small spring on the north bank and two small burns on the south bank. The two small burns are known as the Roughlees and the Greenleighton.

The gathering ground of the main feeders is almost entirely of a peaty nature, while the peat itself varies somewhat in each area. That upon the gathering ground from which the Fallowlees derives its supply is of a fine fibrous texture, and the interstices so filled with humus as to give the mass compactness and solidity, while the peat upon the gathering ground of the Newbiggen is coarse and of longer fibre, easily divided, with only a small amount of vegetable matter in the interstices.

The raw water, seen in bulk, from these areas is of a sherry colour.

With Hazen's colour standard it was found that the Fallowlees gave an estimation of 16°, and the Newbiggen 20°.

The relationship between the intensity of colour and the organic matter, as expressed by the oxygen absorbed figure, will be seen on referring to the chemical analysis of the raw water taken on the 2nd March, 1910.

	Fallowlees.	Newbiggen.
	Parts per 100,000.	
Chlorides as Chlorine ... ..	1.0	1.4
Nitrites as Nitrogen ... ..	Nil	Nil
Nitrates as Nitrogen ... ..	0.011	0.020
Free Ammonia ... ..	0.004	0.005
Albuminoid Ammonia ... ..	0.029	0.029
Oxygen Absorbed (4 hours at 37° C.) ...	1.490	1.980
Total Hardness ... ..	3.6°	3.0°
Total Solids ... ..	13.0	12.0

Both streams gave an acid reaction with lacmoid, and their acidity was determined by titrating 100 c.c. of the water with decinormal  $\text{Na}_2\text{CO}_3$  using phenolphthalein as an indicator, with the result that Fallowlees required .25 c.c. and Newbiggen .30 c.c.

The raw waters were also tested for plumbo-solvency, and were found to give the following average results, stated as parts per 100,000 :—

Fallowlees, ·21. Newbiggen, ·22.

In order to compare these results with the water as distributed to the town, after filtration through sand by gravitation, an analysis of the tap water made on the 16th March, 1910, gave the following results :—

	Parts per 100,000.
Chlorides as Chlorine ... ..	0·900
Nitrites as Nitrogen ... ..	Nil
Nitrates as Nitrogen ... ..	0·014
Free Ammonia ... ..	0·002
Albuminoid Ammonia ... ..	0·010
Oxygen Absorbed (4 hours at 37° C.) ... ..	0·340
Total Hardness ... ..	7·5°
Total Solids... ..	12·0

The intensity of colour by Hazen's standard was 12°, and the reaction to lacmoid neutral.

The sample was also examined for alkalinity by titrating 100 c.c. with decinormal  $H_2SO_4$ , using methyl orange as an indicator, and required 1·3 c.c. for neutralisation.

It was further tested for plumbo-solvency and was found to be non-solvent, und therefore safe in this respect for distribution.

It now remained to ascertain the source of alkalinity of the filtered water, as the main feeders were distinctly acid and plumbo-solvent.

The other sources of supply to the reservoir were next examined, namely, the small spring and the two burns, which supplement the supply from the Fallowlees and Newbiggen streams.

The spring is evidently derived from the chalk beds, as the water left a white deposit on each side of the track as it flowed along.

The amount of water discharged from the spring was very small, but was clear and sparkling. The alkalinity alone was determined, and 100 c.c. of the spring water required 4·4 c.c. of decinormal  $H_2SO_4$  for neutralisation.

The analysis of the Roughlees and the Greenleighton burns was as follows :—

	Roughlees.	Greenleighton.
	Parts per 100,000.	
Chlorides as Chlorine ... ..	1.2	1.1
Nitrites as Nitrogen ... ..	Nil	Nil
Nitrates as Nitrogen ... ..	0.036	0.016
Free Ammonia ... ..	0.000	0.003
Albuminoid Ammonia ... ..	0.001	0.008
Oxygen Absorbed (4 hours at 37° C.) ...	0.010	0.100
Total Hardness ... ..	10.8°	6.8°
Total Solids ... ..	27.0	15.0

100 c.c. of Roughlees water tested for alkalinity required 3.3 c.c., and the same quantity of Greenleighton water required 1.7 c.c. of decinormal  $H_2SO_4$  for neutralisation.

The plumbo-solvent action of both burns was nil.

These results show that a large volume of alkaline water, derived from natural sources, was mixing with the acid water from the two main streams, and the record forms a good example of a peaty moorland water which has been neutralised and rendered safe in respect of plumbo-solvency by natural means, although such waters are subject to variation and even sudden alteration in character. Thus during a period of drought, the water in the reservoir may sink to a low level, and the peat washings, which are invariably acid, may during a sudden storm markedly alter the character of the supply.

Bacteriological examinations were also made throughout the year for bacillus coli, but no presumptive evidence was obtained, using as much as 100 c.c. of the water.

**BLUEHOUSES WATER SUPPLY.**—The supply to these houses was formerly derived from a 6 inch drain pipe, emerging from under the bank of a field, which forms the boundary of a burn containing water discharged from Shiremoor Colliery. The burn at times rose, during flood, to a height which covered the pipe outlet, and the road of access was dangerous.

The houses belong to the Cramlington Coal Company, and after considerable negotiation the Company have laid a pipe from Murton Row to Bluehouses, so that the dwellings now receive a gravitation supply from the Font reservoir.

WELL YARD WATER SUPPLY.—In the month of June attention was directed to the water supply of six families at Well Yard, Percy Square, Tynemouth.

A sample of the water taken from the well was submitted to the public analyst on 8th June, 1910, with the following result:—

	Grains per Gallon.
Total Solids ... ..	80·780
Chlorides as Chlorine ... ..	7·136
Ammonia ... ..	0·001
Albuminoid Ammonia ... ..	0·011
Nitrates as Nitrogen ... ..	0·382
Oxygen Absorbed (15 minutes at 80° F.) ... ..	0·033
"    "    (4 hours at 80° F.) ... ..	0·082
Lead and other poisonous metals ... ..	None.
Appearance in two foot tube ... ..	...Colourless and clear.
Smell when heated to 100° F. ... ..	Earthy.

Microscopical examination of sediment shows decaying vegetable tissues, fungoid growths, many moving organisms, cotton fibres and straw.

After consideration of the analysis, the Committee decided to call upon the owner of the property to provide a pure and wholesome supply.

A gravitation supply from the Font was introduced for the use of the tenants on 7th September, 1910.

MIDDLE ENGINE WATER SUPPLY.—The water from a well which provides a supply to these houses is at present under consideration, and a report thereon has been submitted to the Committee.

THE SALT WATER SWIMMING BATH, HAWKEY'S LANE, was opened during the year 1909, and measures 100 feet × 40 feet, varying in depth from 3 feet to 6 feet 6 inches.

In connection with the gents' dressing room at the north end are two shower baths, hot and cold, two foot baths, and two lavatories with urinals and w.c. In the early part of the year a commodious dressing room for ladies was erected at the south end, and is divided into 28 separate compartments, and fitted with a small bath room, having hot and cold fresh water, shower bath, foot bath and lavatory.

Under the auspices of the Tynemouth Amateur Swimming Club, instruction in swimming was given by nine gentlemen and two ladies, who act as honorary instructors to teach the art of swimming.

From May to September inclusive, 1,200 boys and 420 girls visited the bath free of charge, every week, from the various public day schools, to receive instruction in swimming.

The children were admitted in batches of 30 at a time under the charge of a teacher during the hours 9.15 a.m. to noon, and 1.30 p.m. to 4.30 p.m. from Monday to Friday.

There are also about 650 junior male members and 150 junior female members of the club, who pay a nominal subscription of 1/- for the season, and are admitted at stated hours.

Before entering the swimming bath each child is provided with hot water and Cyllin soap, so that their use may assist in inculcating the habit of thorough cleanliness and provide a lesson in personal hygiene.

The Corporation are to be congratulated on the provision of this public swimming bath.

## OFFENSIVE TRADES.

On 28th August, 1909, certain sections of the Public Health Acts (Amendment) Act 1907, were declared to be in force within the Borough. In pursuance of the powers conferred by Section 112 of the Public Health Act 1875, as amended by Section 51 of the Public Health Acts (Amendment) Act 1907, it was considered advisable to petition the Local Government Board to confirm an Order declaring the following to be offensive trades within the Borough :—

- (a) Gut scraping, (b) fish manure making, (c) dealing in rags, bones, fats, animal skins, or other like matter in an offensive condition, and
- (d) fish or potato frying.

The Order declaring these trades to be offensive trades within the Borough was finally confirmed by the Board on the 27th May, 1910, and public notice of the Order, and its confirmation, was given by advertisement in the *Shields Daily Gazette* on 2nd June, 1910.

Draft bye-laws regulating the following trades have also been prepared during the year, and submitted to the Local Government Board for confirmation, namely :—

- (a) Gut scraping, (b) fish manure making, (c) dealing in rags, bones, fats, animal skins, or other like matter in an offensive condition, (d) fish or potato frying, (e) tallow melting, (f) tripe boiling.

The following is a list of offensive trades carried on within the Borough :—

Gut scraping, 5 ; fish manure making, 1 ; tripe boiling, 3 ; tallow melting, 1 ; dealing in rags, bones, fats, animal skins, or other like matter in an offensive condition, 5 ; fish or potato frying, 27.

SLAUGHTER-HOUSES.—All the slaughter-houses in the Borough have been visited, and information has been gathered regarding the structure of the premises, situation, water supply, drainage, and refuse removal.

It was found that there are altogether 60 slaughter-houses presently in use and occupation, and of these it would appear that 10 were in use and occupation at the time of the passing of the Public Health Act 1875, while 50 have been occupied since the passing of the Act. To the former class the requirements as to registration are applicable, and to the latter class the provisions as to licensing have direct reference. These slaughter-houses have been regularly visited, but it has been felt for some time that meat inspection could not be efficiently carried out owing to the number of private slaughter-houses, and the distance which separated them, unless some co-operation existed between the butchers and the Public Health Department.

In the month of October a sub-committee was formed to consider the question, and at a subsequent date a deputation, representative of the butchers, was received by the committee to discuss the matter and consider various proposals. The butchers have since formed an association, and have adopted a system of insurance whereby compensation may be given, after inspection by one of their number, for all meat condemned as being unsound and unfit for human food. They have also agreed to notify the Medical Officer of any diseased or unsound animal.

It is only fair to the trade to say that the class of meat slaughtered was generally of good quality and in excellent condition.

From inquiry it was ascertained that oxen and heifers form the major portion of all animals slaughtered, and in only one or two instances did it appear that cows were killed for butchers' meat.

The statements have so far been borne out by the observations made during routine inspection.

It would seem that frozen meat and chilled beef is to a very considerable extent replacing the fresh meat of newly slaughtered animals, and in some

shops, owing to the demand for the former, it has been found necessary to keep a stock of both to supply the public want. In other cases the occupier has entirely replaced the fresh meat trade by introducing the frozen class of meat.

## MIDWIVES ACT.

The Midwives Act is intended to secure the better training of women as midwives, and to regulate their duties.

From 1st April, 1905, any woman not certified under the Act was precluded from using the name of midwife; and from the 1st April, 1910, any uncertified woman attending habitually or for gain any woman in childbirth, unless under the direction of a medical practitioner, or in the case of emergency, was liable to a penalty.

Under a new rule, sanctioned by the Privy Council, the Central Midwives Board was enabled, at its discretion, until 30th September, 1910, to grant certificates without requiring examination to suitable women, who, though duly qualified under Section 2 of the Midwives Act 1902, failed to claim the Central Midwives Board certificate during the two years' period of grace, which expired on 31st March, 1905.

Three midwives obtained the certificate of the Central Midwives Board under the new rule during the year.

The Town Council is the Local Supervising Authority, and upon them devolves the duty of seeing that the Act is efficiently administered in respect of (1) the general supervision of all midwives within the Borough, (2) the investigation of charges of negligence, malpractice, or misconduct, (3) the suspension of a midwife from practice under certain circumstances, or reporting her to the Central Midwives Board.

On the 1st January, 1910, there were 8 persons certified as midwives under this Act, practising or resident within the Borough. During the year three new names were added to the list, and one voluntarily resigned, having become incapacitated by accident, thus leaving 10 persons on the register at the end of the year.

The following is a list of persons certified as midwives, and practising within the Borough:—

No. of certificate.	Name.	Address.
20153	Margaret Emmerson,	8, Sibthorpe Street.
1894	Jessie Gray,...	... 32, Victoria Street.
19570	Dorothy Hart,	... 52½, Bedford Street.
18873	Violet Laidler,	... 66, Stephenson Street.
150	Alice Scott, ...	... 15, Linskill Street.
14146	Isabella Warren,	... 58, Stephenson Street.
24286	May Weston,	... 40, Birtley Avenue, Tynemouth.
31031	Ellen Young,	... 21, Percy Street, Tynemouth.
30970	Margaret Fairbairn ...	39, Rosebury Avenue, Preston.
30824	Elizabeth Preston, ...	38, North Street, Milburn Place.

The number of cases attended during the year by midwives was 532, or 29·7 per cent. of births registered during the year.

#### WORK OF MIDWIVES.

Year.	Midwives.	Cases attended.	Medical aid summoned.	Still born.	Miscarriages.
1909	10	441	22	13	14
1910	10	532	16	25	5

Medical aid was summoned for the following reasons:—

Malpresentation and hemorrhage, 6; protracted labour, 1; rise of temperature or illness of mother, 4; illness of child, 5.

#### INSPECTION OF DAIRY HERDS.

The dairy herds in the Borough are inspected by Thos. Harper, M.R.C.V.S., twice in each year for the detection of tubercular disease of the udder. When a cow's udder is considered suspicious, a sample of milk is taken and examined for tubercle by animal inoculation.

One cow examined during the month of February by the veterinary inspector was considered suspicious, but a sample of milk tested by animal inoculation was reported negative. The remainder, examined in the various herds, were not considered by the inspector to show any signs suggestive of tubercular disease of the udder.

The number of cows examined at the last inspection was 323, and the number of cowkeepers was 22.

## CLEANSING DEPARTMENT.

The work of this department was transferred in 1905 and placed under the control of Mr. Storer, Cleansing Superintendent, who is responsible to the Medical Officer of Health for efficient organisation and carrying out of the work of the department.

The highways, which may be considered rural in character, are controlled by the Borough Surveyor, while the urban portion of the Borough is superintended by the Health Department, and includes :—North Shields, Tynemouth, Cullercoats, Preston, Chirton, Percy Main, East Howdon, and the Fish Quay.

The work is divided into two sections, day and night scavenging. Part of the work is done by contract and part by the Corporation employees.

DAY SCAVENGING.—The work of this section includes street cleansing, watering, flushing of sewers, removal of ashes, shop refuse, snow, etc. There is also the supervision of the salt water reservoir, which is situated at an elevated part of the town, and regularly filled by pumping the sea water at certain states of the tide. This water is filtered and then used for cleansing purposes. It also supplies the swimming bath and many private houses with salt water.

The number of employees in this section averaged about 52 men and 7 horses with cartmen.

The amount of refuse dealt with by day scavenging during the year was :—

Street sweepings	...	...	...	6,660 loads
Ashes and trade refuse	...	...	...	1,800 „
Paper, rags, etc.	...	...	...	756 „
				—————
Total	...	...	...	9,316 „

The number of vans of water used for street watering was 2,324, and for flushing sewers 1,718, making a total of 4,042 loads. The amount of refuse delivered by the Corporation carts, and consumed at the destructor, amounted to 1,280 loads.

NIGHT SCAVENGING.—The work of this section includes the emptying of all ashpits and sanitary pails, and the carting of all household refuse to the manure depot or other suitable tip. The refuse delivered at the manure depot is loaded into trucks after the rags, old tins, iron, etc., have been sorted out.

53 men and 20 horses were employed in this section, and the amount of refuse dealt with was :—

Removed to manure depot	...	26,043 loads.
,, farmers and others	...	4,041 ,,
,, destructor	... ..	524 ,,
		<hr/>
Total	...	30,608 ,,

Ashpits are emptied, on an average, every 4 or 5 weeks. The number in the district is :—

(a) Emptied by the Corporation	...	484
(b) Emptied by Contract	...	267
		<hr/>
Total		751

The number of privy pails is as follows :—

(a) Emptied by the Corporation	...	4238
(b) Emptied by Contract	...	5465
		<hr/>
Total		9703

The Borough, in so far as removal of night soil is concerned, is divided into 11 districts.

In 6 of these districts the pails are emptied nightly with the exception of Saturday night, *i.e.*, on 6 nights during the week. In the remaining districts the pails are attended to on 4 nights in the week.

A new contract for the removal of the night soil, etc., was entered into for a period of one year from 22nd September, 1910, and which may be extended for a further period of one year at the option of the Council.

At the end of the year 1910, 3,383 houses were provided with water closets ; 9,703 were provided with privy pails, and there were 751 ashpits.

In September, 1909, the Council resolved that the policy of providing new buildings with water closets, instead of pail closets, be adopted, as provided for in the Public Health Acts (Amendment) Act 1907 Section 39 (2).

During the months of August, September and October, courts and passages in the following areas were limewashed :—

Milburn Place, Bull Ring, Duke Street, Clive Street, Bell Street, Liddel Street, Howard Street, Tyne Street, Low Lights, East Percy Street, Bird Street, Northumberland Street, Hudson Street, Beacon Street, Pant Street, Toll Street, Reed Street, Charlotte Street, King Street, George Street, Queen Street, Church Street, Linskill Street and Stephenson Street.

The total surface limewashed amounted to 20,119 square yards.

## METEOROLOGY.

The highest temperature recorded during the year was 73° F in the month of August, while the lowest temperature, 15° F was recorded in the month of January.

The mean barometric pressures varied throughout the year from 29·456" of mercury, recorded in the month of February, to 30·248" in the month of September

March was the driest month, having only 9 wet days, with a total rainfall of ·77", while November had the heaviest rainfall recorded during any single month, having 23 wet days with a rainfall of 3·28".

The total rainfall for the year was 24·37", rain falling on 206 days.

The average rainfall at Tynemouth during the last 10 years was as follows :—

Year	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
Inches	27·56	19·04	32·96	20·45	18·69	26·46	24·94	20·02	28·92	24·37
	Average for 10 years 24·34".									

Details of the mean meteorological readings for the year 1910, as recorded by the Meteorological Office, North Shields, were as follows :—

# AVERAGE METEOROLOGICAL READINGS AT NORTH SHIELDS,

FOR THE YEAR ENDING 31st DECEMBER, 1910.

MONTH.	BAROMETER		TEMPERATURE OF AIR.							RAINFALL.	
	Mean Pressure in inches.	Absolute Extremes.	Mean of				Daily Max.	Daily Min.	Prevailing Direction of Wind.	Number of Days on which Rain has fallen.	Amount of Rainfall in inches.
			80 a.m. Dry Bulb.	9 <sup>30</sup> a.m. Wet Bulb.	Daily Max.	Daily Min.					
January	29.707	56°	36.27	36.04	47.00	30.03	15°	S.W. & W.S.W.	17	2.10	
February	29.456	54°	38.19	37.22	44.25	33.15	28°	S. & S.W.	20	2.36	
March...	30.110	59°	40.07	38.19	49.04	35.16	30°	S.W. & S.S.E.	9	0.77	
April ...	29.753	58°	41.01	39.07	49.29	35.17	28°	S.W. & S.S.W.	20	1.85	
May ...	29.911	71°	46.06	44.19	54.05	40.27	34°	N. & W.	21	2.35	
June ...	29.899	69°	53.09	51.13	61.02	47.25	42°	S.W. & W.S.W.	16	1.79	
July ...	29.860	70°	53.24	51.20	60.06	48.28	45°	N. & S.W.	19	1.85	
August	29.809	73°	55.08	53.28	64.09	50.13	46°	S.S.W. & S.W.	18	2.45	
September	30.248	68°	50.02	48.17	60.13	42.17	37°	W.S.W. & W.N.W.	10	0.81	
October	30.084	69°	49.13	48.03	56.20	45.08	39°	E. & W.	15	2.81	
November	29.569	49°	35.21	34.29	43.11	30.22	23°	W.N. & W.	23	3.28	
December	29.620	55°	43.01	41.20	47.04	37.21	28°	S.W. & W.	18	1.95	
									206	24.37	

PUBLIC HEALTH DEPARTMENT,  
NORFOLK STREET,  
NORTH SHIELDS.

ANNUAL REPORT  
OF THE CHIEF SANITARY INSPECTOR.

MADAM AND GENTLEMEN,

I beg to submit my Fifth Annual Report giving detailed information of the work performed in the department during the year ending 31st December, 1910.

INSPECTIONS.—During the year regular inspections have been made of the various districts in the Borough. These include visits to houses where infectious disease has been reported, to make inquiries as to probable source of infection, etc., or arrange removal of the patient to Moor Park Hospital; also visits to tenemented blocks of property and other houses in connection with nuisances, sometimes on complaint, which in some cases is verified, and in others there is no cause for complaint.

Visits have also been made to Factories and Workshops (as per table), Workplaces and Outworkers, Bakehouses, Cowsheds, Dairies and Milkshops, Courts, Alleys, Common and Seamen's Lodging Houses, Butcher's Shops and Slaughter Houses, and premises where offensive trades are carried on.

Advisory visits and consultative appointments with owners, agents, builders, and others, were arranged in connection with the inspection and re-inspection of premises and work in progress.

NUISANCES.—During the year the number of notices served for the abatement of nuisances under the Public Health Acts, Bye-laws and Regulations, amounted to 1152, of which 923 were informal, and 239 statutory notices. Daily inspections of different parts of each district are made by the Inspectors, many nuisances being abated without delay by direct request to the occupier or owner. The nuisances discovered during the inspections, were of a varied character. Many were of such a nature as to require no structural alteration to procure abatement; in other cases informal, and in some cases statutory notices, were requisite before abatement could be procured.

Again, the principal nuisances we had to contend with were caused by the privy-pail system, such as defective sanitary receptacles, seats without urine guards, causing water to flow from the recess into the lane or street, and refuse being deposited into the recess, which is often the cause of the receptacle being kept out of its proper position.

There were 3,750 notices served to abate nuisances from defective pails, etc., and, in my opinion, nuisances will always exist while the pail system is in operation, and until the whole of the ashpits and pail-privies in the Borough are abolished, and the water carriage system adopted. A good many ashpits and pail-privies have been converted during the past twelve months, but I hope before long that the Council will make conversion compulsory.

Inspection and supervision has been made of work in progress, viz:—re-laying of drains and sanitary fittings, conversion of ash-pits, privies, W.C.'s, etc.

**OFFENSIVE TRADES.**—The offensive trades carried on in the Borough number 42, all of which have been regularly visited, including fish-frying which has recently been added to the list of offensive trades. All these establishments are, in general, conducted satisfactorily, very few complaints being received, considering there are 5 gut-scrapers, a trade which is very offensive and ought to be carried on in premises a reasonable distance from any dwelling house. There is also a considerable improvement in the fried fish shops, since frequent inspection has been made while the business was in progress, both in cleanliness and means of obviating a nuisance from the fumes and steam.

**DRAIN TESTING.**—Following on the cases of infectious diseases notified, or upon a receipt of a complaint or request, the drains and sanitary fittings of 439 houses were inspected.

The drains of 10 dwelling houses have been tested by request, 11 on suspicion of a nuisance, and 4 of house drains and sanitary fittings, after notification that cases of infectious disease had occurred on the premises, making the total number of tests 25, and of these 22 proved defective at the first test.

All drains found defective have been either relaid or made efficient.

HOUSE TO HOUSE INSPECTION.—The house to house inspection has been continued during the year, of which a report has been laid before the Housing Committee every month. Inspection has been continued along the low part of the town and Milburn Place district, which comprised the inspection of 95 houses, or 267 tenements. Included in this area were 154 one roomed houses and 83 two roomed houses. Five cases of overcrowding were discovered during the inspection, all of which have since been abated. In the 267 tenements inspected a large number of defects were found. These included defective plaster of walls of rooms and staircases, defective floors, roofs, pavement of yards, spouting, insufficient window space, insufficient sanitary conveniences, defective drainage, no water supply, etc., also a great amount of ashes and other refuse has been removed from attics, back yards, cellars and other places. A great improvement has been made by the owners consenting to limewash or colour the passages and staircases of this tenemented property. The inspection has also been the means of discovering dirty houses, and in every case the instructions given to the tenants to have the premises cleaned were carried out satisfactorily. One room at No. 14, South Street, North Shields, was considered unfit for sleeping accommodation, and a closing order was issued as there was insufficient light and ventilation, but this has now been made habitable and the closing order withdrawn.

No. 32 Duke Street, North Shields.—This house and shop are without any sanitary convenience, water supply or drainage. The owner has received a notice to provide same, but at the present time the premises are unoccupied.

Nos. 16 and 17, Middle Street, North Shields.—This house is in a dilapidated condition, but it is at present unoccupied, and it is not the intention of the owner to let the rooms in their present condition.

Taking all circumstances into consideration, especially when this work has to be carried out in addition to our ordinary work, I think the improvement effected in this class of house is worth the extra labour, and I am pleased to say that the owners have assisted me in every way possible to carry out what was necessary to put the houses in a sanitary condition.

LIMEWASHING.—The limewashing of 177 public courts and passages has been carried out during the summer season, being only half the

usual number, the remainder are to be limewashed this year. A great improvement has been effected by it, and I think the full number, as previously done, should be limewashed each season, as, in my opinion, it is money well spent.

**SEAMEN'S AND COMMON LODGING HOUSES.**—There were 32 Seamen's and 11 Common Lodging houses on the Register, on the 31st December, 1910, providing accommodation for 380 and 490 lodgers respectively. They have been frequently inspected, and generally found in a satisfactory condition, so far as cleanliness and management are concerned.

There is a decrease of 6 Seamen's Lodging Houses, and an increase of 1 Common Lodging House, as compared with the previous year.

**DAIRIES, COWSHEDS AND MILK SHOPS.**—We have at present 22 Cowsheds within the Borough being the same number as last year. These cowsheds provide accommodation for 323 cows, varying from 4 to 37 in each herd. The number of names on the register for the sale of milk is 225, consisting of 22 cow keepers and 203 milk shops and dairies.

The cowsheds are inspected every six months, together with the Veterinary Surgeon, who examines the cows. The average air space in the 22 cowsheds is 680 cubic feet per cow. The whole of the milkshops and dairies have been regularly visited twice, and in some cases oftener, during the year, when they were usually found fairly clean, the cowsheds having been lime-washed at least twice in the year.

**FACTORIES AND WORKSHOPS.**—The number of factories and workshops on the register on the 31st December, 1910, a list of which is appended, was 200, and includes 15 bakehouses, and 2 Laundries. These have all been visited, and in most cases the requirements of the Factory and Workshop Acts as to cleanliness, ventilation, air space and sanitary conveniences, were reasonably complied with. An inspection is also made of the outworker's premises every six months, the number on the register being 16. (See Table).

**BUTCHERS' SHOPS AND SLAUGHTER HOUSES.**—During the year I have inspected the whole of the premises where slaughtering is carried on within the Borough, and found that out of 60 butchers who slaughter cattle, there are 30 who slaughter in a place away from the shop, either at the rear or off the premises altogether, the remainder, 30, slaughter in their front or retail shop.

A regular inspection is made every week of some of the premises, at the time of slaughter, for the purpose of inspecting the carcasses, and also the premises, which have always been found in a satisfactory condition.

INFECTIOUS DISEASES.—The number of visits made by the Inspectors in connection with cases of infectious diseases was 223.

Cholera, plague and small-pox contacts, reported by other Authorities was 34.

Following cases of notifiable diseases, 259 rooms were disinfected, and 1,631 articles.

SAMPLES OF FOOD, DRUGS AND WATER.—The number of samples purchased during the year for analysis totalled 168; of these 115 were formal, and 53 were informal samples taken under the Sale of Food and Drugs Act. Of these samples 7 were the subject of legal proceedings, the result of which will be found in Table.

Three samples of water were also taken for examination by the Public Analyst.

FISH CURING.—This business which has greatly increased during recent years, was continued again during the summer season, and although the business was carried on in various parts of the district, there was no cause for complaint as to the existence of any nuisance. Regular inspections were made of these premises.

I am, Madam and Gentlemen,

Your obedient Servant,

GIBSON EDWARDS,

Chief Sanitary Inspector.

1st April, 1911.

## Factories, Workshops, Workplaces and Homework.

### 1.—*Inspection* (Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.)

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories (Including Factory Laundries) ...	10	1	
Workshops (Including Workshop Laundries)...	360	24	
Workplaces (Other than Outworkers' premises included in Part 3 of this Report)... ..	Nil.	Nil.	
Total...	370	25	

### 2.—*Defects Found.*

Particulars.	Number of Defects.			Number of Prosecutions
	Found.	Remedied.	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts :...</i>				
Want of Cleanliness ... ..	6	6		
Want of Ventilation ... ..	1	1		
Want of Drainage of floors ... ..	2	2		
§Sanitary Accommodation {	insufficient... ..	7		
	unsuitable or defective	8		
	not separate for sexes	1		
Total...	25	25		

§Action is here taken under Section 22 of the Public Health Amendment Act 1890, which has been adopted by the Council; the standard of sufficiency and suitability of sanitary accommodation enforced is the same as that of the Sanitary Accommodation Order of 1903, of the Home Office.

### 3.—*Home Work.*

Outworkers' Lists Section 107.			
Lists received from Employers sending twice in the year—			
Wearing Apparel—[1] Making, &c. ...	Lists 10	Workmen 28.	
Boot Making ... ..	2	2.	
Furniture and Upholstery ... ..	2	2.	
List received from Employers sending once in the year—			
Wearing Apparel—[1] Making, &c. ...	Lists 1	2.	
Address of Outworkers received from other Councils ...			2
” ” forwarded to ” ” ...			3
Inspection of Outworkers' premises ... ..			28

## 4.—Registered Workshops.

Workshops on the Register (s. 131) at the end of the year. (1).		Number. (2).
Important classes of workshops, such as workshop bakehouses may be enumerated here.	The most important Workshops are :—	
	Engineers... ..	11
	Fish Curers ... ..	22
	Bakers .. ..	15
	Dressmakers and Milliners ... ..	17
	Joiners ... ..	17
	Mineral Water Manufacturers ... ..	5
	Printers ... ..	7
	Shoemakers ... ..	7
	Tailors ... ..	17
Other Trades ... ..	82	
Total number of Workshops on Register		200

## 5.—Other Matters.

Class.	Number.
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (S. 133) ...	
Action taken in matters referred by H.M. Inspectors as remedial under the Public Health Acts, but not under the Factory Act (S. 5) ...	17
	17
Underground Bakehouses (S. 101) :—	
In use at the end of the year... ..	1

## List of Workshops on the Register at the end of the year.

Basket Makers ... 1	Engineers ... .. 11	Plumbers ... .. 5
Bakers ... .. 15	Farriers ... .. 3	Printers ... .. 7
Boiler Makers... 1	Fish Curers ... .. 22	Saddlers ... .. 2
Biscuit Manufacturers 1	Hosiers... .. 2	Sail Makers ... .. 3
Blacksmiths ... 1	Ice Manufacturers ... 3	Salt Packers ... .. 2
Block & Mast Makers, 1	Jewellers ... .. 5	Sausage Makers ... 1
Brewers ... .. 1	Joiners ... .. 17	Shoemakers ... .. 7
Brick Makers ... 2	Laundries ... .. 4	Tailors ... .. 17
Boat Builders ... 1	Lead Manufacturers ... 1	Tanners ... .. 1
Bottle Fillers ... 1	Lifebuoy Makers ... 2	Timber Merchants ... 5
Cabinetmakers ... 3	Metal Founders ... 3	Tinsmiths ... .. 2
Cartwrights ... 1	Milliners ... .. 7	Waggoners ... .. 1
Coffee Grinders ... 3	Mineral Water Makers 5	Confectioners ... .. 2
Coach Builders ... 2	Net Makers ... .. 1	Drysaltry ... .. 1
Compass Adjusters ... 1	Oil and Guano	Rag Sorters ... .. 2
Cycle Repairers ... 1	Manufacturers ... 1	Boot Repairers ... 4
Dressmakers ... .. 10	Paint Manufacturers... 1	
Dyers ... .. 1	Photographers ... .. 3	Total ... .. 200

## ANALYSIS OF FOOD AND DRUGS. Formal Samples.

Articles Analysed.	Number Analysed.	Result of Analysis		Extent of Adulteration.	Action Taken.
		Genu.	Adul.		
Milk ...	*109	*71	38	8.3 per cent. deficient in Milk Fat ...	Cautioned.
				10.0 do. ...	do.
				10.0 do. ...	do.
				13.3 do. ...	do.
				10.0 do. ...	do.
				5.0 do. ...	do.
				10.0 do. ...	do.
				10.0 do. ...	do.
				8.3 do. ...	do.
				5.0 do. ...	do.
				10.0 do. ...	do.
				20.0 do. ...	do.
				13.3 do. ...	do.
				13.3 do. ...	do.
				6.6 do. ...	do.
				18.3 do. ...	do.
				48.3 % deficient in milk fat and 2.4 % deficient in non-fatty solids ...	5/- & costs.
				20.0 % deficient in milk fat ...	Cautioned.
				8.3 % deficient in milk fat and 6.0 % deficient in non-fatty solids ...	do.
				10 % deficient in milk fat and 6.3 % deficient in non-fatty solids ...	do.
				3.3 % deficient in milk fat ...	do.
				6.6 % deficient in milk fat and 8.0 % deficient in non-fatty solids ...	do.
				15.0 per cent deficient in milk fat ...	Dismissed.
				5.3 do. non-fatty solids ...	Cautioned.
				6.6 per cent. deficient in milk fat ...	Dismissed.
				5.0 do. ...	Cautioned.
				6.6 do. ...	do.
				10.0 do. ...	Dismissed.
				16.6 do. ...	do.
				6.6 do. ...	Cautioned.
				3.3 do. ...	do.
				11.6 do. ...	Dismissed.
				6.6 do. ...	Cautioned.
				8.3 do. ...	do.
				Contains Formaldehyde 16 parts per 100,000 ...	do.
				10.0 per cent. deficient in milk fat ...	15/- & costs
				3.3 do. ...	Cautioned.
				3.3 % deficient in milk fat and 0.7 % deficient in non-fatty solids ...	do.
Whiskey	1	1			
Lard ...	5	5			
<b>TOTALS</b>	<b>*115</b>	<b>*77</b>	<b>38</b>		

\* Includes 4 Samples accidentally broken after purchase.

## ANALYSIS OF FOOD AND DRUGS. Informal Samples.

Articles Analysed	Number Analysed.	Result of Analysis		Extent of Adulteration.	Action Taken.
		Genu.	Adul.		
Whisky	12	11	1	34° under proof	Cautioned.
Butter ...	32	27	5	0.26 per cent. Boric Acid	Cautioned.
				0.09 do.	do.
				0.06 do.	do.
				0.22 do.	do.
				0.12 do.	do.
Lard ...	9	6	3	5 per cent. Cottonseed Oil	Cautioned.
				5 do.	do.
				5 do.	do.
TOTALS	53	44	9		

### A Summary of Nuisances dealt with by Notice under the Public Health Acts and Bye-laws.

#### NATURE OF NUISANCE DEALT WITH AND WORK REQUIRED TO BE DONE.

	Informal Notices.	Statutory Notices.
Obstructed and Defective Drains and Gullies ...	142	37
Defective Ashpits, Privies, and W.C.'s ...	143	51
"  W.C. Cistern, Pipes, etc. ...	4	0
"  Spouting, Eaves, Gutters, etc. ...	108	36
"  Walls, Floors, Ceilings, Rooms, etc. ...	72	20
"  Ashpits, and to convert to pail closets or W.C.'s	4	3
To Cleanse Dirty Yards, Privies, W.C.'s, etc. ...	105	17
To Cement Defective Yard Paving ...	35	13
Water Supply to Premises, W.C.'s, etc. ...	10	2
To Clean Dirty Rooms ...	21	3
Additional Privies or W.C.'s ..	8	8
Untrapped Scullery Sinks, etc. ...	4	2

				Informal Notices.	Statutory Notices.
To provide New Drains and Gullies	...	...	...	11	4
Dirty and Defective Washhouses	...	...	...	6	9
Accumulation of Manure and other Refuse	...	...	...	50	8
Defective Chimneys	...	...	...	4	1
Defective Roof of Buildings	...	...	...	36	11
Defective underground Tanks	...	...	...	1	0
To provide Urine Guards	...	...	...	35	4
Defective Steps	...	...	...	3	0
Defective Rooms	...	...	...	13	0
"    Handrails	...	...	...	4	0
Dirty Passages and Staircases	...	...	...	70	6
Damp Walls of Rooms, etc.	...	...	..	10	4
Insufficient Light and Ventilation	...	...	...	5	0
Defective Windows	...	...	...	10	0
Accumulation of Stagnant Water	...	...	...	2	0
Defective Scullery Sinks	...	...	...	7	0
				Totals...923	289

#### DISINFECTION OF HOUSES, Etc.

Cause.					Rooms.	Articles.
Scarlet Fever	...	...	...	...	89	907
Diphtheria	...	...	...	...	75	535
Typhoid	...	...	...	...	7	38
Tuberculosis	...	...	...	...	20	110
Septic Diseases	...	...	...	...	6	34
Vermin ...	...	...	...	...	51	7
Influenza	...	...	...	...	1	0
Whooping Cough	...	...	...	...	10	0

During the year 18 ashpits were removed, and w.c.'s or pail closets erected in their stead.

Notices served on account of defective sanitary pails, doors, etc....	3,750
Number of new pails provided during the year	569
Number of pails repaired	678

LOCAL GOVERNMENT BOARD TABLE  
TABLE I.—COUNTY BOROUGH OF TYNEMOUTH.

YEAR.	Population estimated to Middle of each Year.		BIRTHS.		DEATHS UNDER 1 YEAR OF AGE.		DEATHS AT ALL AGES.		DEATHS IN PUBLIC INSTITUTIONS.	Deaths of Non-residents registered in Public Institutions in District.		Deaths of residents registered in Public Institutions beyond District.		NETT DEATHS ALL AGES BELONGING TO THE DISTRICT.	
	2	3	Number.	Rate.*	Number.	Rate per 1,000 Births registered	Number.	Rate.*		10	11	12	13	Number.	Rate.*
1900	51038	1649	32.3	256	155	1115	21.8	144	65	24	1074	21.0			
1901	51520	1780	34.5	313	175	1039	20.1	118	51	19	1007	19.5			
1902	52044	1753	33.6	263	150	1058	21.0	175	74	25	1009	19.3			
1903	52506	1734	33.02	280	160	1014	19.3	170	63	18	969	18.4			
1904	53022	1851	34.91	283	152	1081	20.3	193	75	25	1031	19.4			
1905	53542	1775	33.15	282	159	1107	20.7	201	57	16	1066	19.9			
1906	54138	1759	32.49	264	151	1089	20.1	188	70	3	1022	18.8			
1907	54688	1796	32.84	219	122	1006	18.3	187	80	0	926	16.9			
1908	55244	1896	34.32	262	138	1037	18.77	192	85	1	951	17.2			
1909	55808	1874	33.5	239	127	1018	18.24	198	63	3	958	17.1			
Averages for years 1900-1909	53355	1786	33.4	266	149	1056	19.86	176	68	13	1001	18.7			
1910	56378	1788	31.7	224	125	1035	18.35	205	66	2	971	17.2			

\* Rates calculated per 1,000 of estimated population.

Area of District in acres (exclusive of area covered by water), 4,288.

Total population at all ages, 51,366.

Number of inhabited houses, 6,779.

Average number of persons per house, 7.57.

} At Census of 1901.

Institutions within the District receiving sick and infirm persons from outside the District—Tynemouth Union Workhouse and Tynemouth Jubilee Infirmary.

Institutions outside the District receiving sick and infirm persons from the District—County Asylum, Morpeth.

LOCAL GOVERNMENT BOARD TABLE.

TABLE II.—COUNTY BOROUGH OF TYNEMOUTH  
Vital Statistics of separate Localities for the years 1900 to 1910.

Names of Localities.	BOROUGH OF TYNEMOUTH.				CHIRTON TOWNSHIP.				CULLERCOATS TOWNSHIP.				NORTH SHIELDS TOWNSHIP.			
	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
YEAR.	a.	b.	c.	d.												
1900	51038	1649	1074	256	15504	507	300	85	1732	69	34	12	5760	168	191	40
1901	51520	1780	1007	313	15768	601	296	96	1746	66	38	13	5729	177	145	36
1902	52044	1753	1009	263	16028	588	272	88	1759	77	22	5	5699	162	164	42
1903	52506	1734	969	280	16302	607	290	98	1743	68	35	12	5662	142	124	29
1904	53022	1851	1031	283	16592	637	314	102	1743	82	43	12	5622	159	136	26
1905	53542	1775	1066	282	16877	618	307	101	1743	74	32	9	5595	123	141	19
1906	54138	1759	1022	264	17117	650	295	75	1815	64	44	13	5603	126	134	27
1907	54688	1796	926	219	17402	643	278	75	1830	64	34	9	5578	116	103	15
1908	55244	1896	951	262	17630	663	289	86	1830	73	27	10	5525	128	94	19
1909	55808	1874	958	239	17846	718	294	90	1852	68	28	6	5480	131	88	28
Averages of Years 1900 to 1909.	53355	1787	1001	266	16706	623	293	89	1779	70	33	10	5625	143	132	28
1910 ...	56378	1788	971	224	18064	635	307	85	1875	59	18	4	5433	141	94	26

## LOCAL GOVERNMENT BOARD TABLE.

TABLE II., *continued.*—County Borough of Tynemouth.

Vital Statistics of separate Localities for the Years 1900 to 1910.

Names of Localities.	PRESTON TOWNSHIP.				TYNEMOUTH TOWNSHIP.				TYNEMOUTH VILLAGE.			
	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
YEAR.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.
1900	3250	86	47	10	20495	737	461	103	4296	82	41	6
1901	3364	90	40	12	20550	742	440	143	4363	104	48	9
1902	3519	113	57	14	20606	722	431	104	4433	91	63	10
1903	3669	102	55	14	20740	699	420	117	4390	81	45	10
1904	3825	118	63	16	20832	732	430	118	4410	100	45	9
1905	3988	127	63	15	20912	724	481	168	4427	83	42	6
1906	3965	143	72	16	21177	688	435	131	4461	88	42	2
1907	4087	145	63	16	21290	728	405	101	4501	74	43	3
1908	4468	122	66	17	21290	831	429	123	4501	79	46	7
1909	4523	146	78	16	21551	729	417	91	4556	82	53	8
Averages of years 1900 to 1909.	3865	119	60	14	20944	693	434	119	4433	86	46	7
1910	4580	164	60	11	21814	687	453	87	4612	70	39	4



LOCAL GOVERNMENT BOARD TABLE.  
 TABLE IV.—County Borough of Tynemouth. Causes of, and Ages at, Death during the year 1910

CAUSES OF DEATH.	Deaths at the Subjoined Ages of "Residents" whether occurring in or beyond the District						Deaths at All Ages of "Residents" belonging to Localities, whether occurring in or beyond the District.						Total Deaths in Public Institutions.					
	All Ages.	Under 1 year.		5 and under 5		15 and under 15		25 and under 25		65 and upwa'ds		Chirton		Cullercoats.	North Shields	Prestonmouth.	Tynmouth Village.	15
		2	3	4	5	6	7	8	9	10	11							
Measles ...	41	5	34	2	...	...	...	...	...	...	7	...	...	...	...	1	16	
Scarlet Fever ...	3	...	2	1	...	...	...	...	...	...	2	...	...	...	...	1	5	
Whooping Cough ...	19	6	12	1	...	...	...	...	...	...	7	...	...	...	...	1	2	
Diphtheria & Membranous Croup	11	1	5	5	...	...	...	...	...	...	6	...	...	...	...	...	4	
Croup ...	6	1	3	2	...	...	...	...	...	...	1	...	...	...	...	...	1	
Enteric Fever ...	4	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	3	
Epidemic Influenza ...	4	...	...	...	1	2	1	...	...	...	1	...	...	...	...	...	...	
Other Septic Diseases ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Diarrhoea ...	22	14	6	...	...	2	...	...	...	...	9	...	...	...	...	2	2	
Enteritis ...	20	10	8	...	...	1	1	...	...	...	12	...	...	...	...	...	2	
Gastritis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Puerperal Fever ...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	
Erysipelas ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Phthisis [pulmonary tuberculosis]	61	1	3	7	12	37	1	...	...	...	14	...	...	...	...	5	21	
Other Tuberculous Diseases ...	28	5	11	6	2	3	1	...	...	...	12	...	...	...	...	10	7	
Cancer, Malignant Disease ...	46	...	...	...	...	28	18	...	...	...	18	...	...	...	...	2	18	
Bronchitis ...	80	21	14	...	...	20	23	...	...	...	21	...	...	...	...	2	11	
Pneumonia ...	84	20	30	3	3	16	12	...	...	...	34	...	...	...	...	4	8	
Pleurisy ...	5	...	...	...	...	5	...	...	...	...	...	...	...	...	...	1	...	
Other Dis. of Respiratory Organs	11	1	3	1	...	4	2	...	...	...	4	...	...	...	...	4	1	
Alcoholism [Cirrhosis of liver]	6	...	...	...	...	5	1	...	...	...	2	...	...	...	...	...	1	
Veneral Diseases ...	3	2	1	...	...	...	...	...	...	...	1	...	...	...	...	...	1	
Premature Birth ...	33	33	...	...	...	...	...	...	...	...	16	...	...	...	...	...	1	
Diseases & accidents of parturition	13	9	...	1	...	2	...	...	...	...	5	...	...	...	...	1	...	
Heart Diseases ...	94	3	1	3	10	49	28	...	...	...	29	...	...	...	...	1	27	
Accidents ...	20	...	...	1	2	14	3	...	...	...	5	...	...	...	...	1	8	
Suicides ...	1	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	
Cerebral Hæmorrhage ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Marasmus ...	25	21	4	...	...	...	...	...	...	...	2	...	...	...	...	...	6	
Meningitis ...	12	3	6	1	2	...	...	...	...	...	4	...	...	...	...	...	...	
Convulsions ...	42	30	12	...	...	...	...	...	...	...	14	...	...	...	...	...	1	
All other causes ...	276	38	10	4	4	98	122	...	...	...	79	...	...	...	...	18	74	
ALL CAUSES ...	971	224	165	39	40	290	213	307	18	94	60	453	39	...	...	205		

LOCAL GOVERNMENT BOARD TABLE.  
TABLE V.—County Borough of Tynemouth.  
Infantile Mortality during the Year 1910.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under 1 Year.
<b>All causes :—</b>																	
Certified ... ..																	
Uncertified ... ..																	
<b>Common Infectious Diseases :—</b>																	
Small-pox ... ..																	
Chicken-pox ... ..																	
Measles ... ..											2			1		2	5
Scarlet Fever ... ..																	
Diphtheria (including Membranous Croup ... ..														1			1
Whooping Cough ... ..						2		1				2			1		6
<b>Diarrhœal Diseases :—</b>																	
Diarrhœa, all forms... ..						3	1	1		1		2	1	4	1		14
Enteritis, Muco-enteritis, Gastro-enteritis ... ..								1	2			1	1			2	7
Gastritis, Gastro-intestinal Catarrh ... ..						2			1								3
<b>Wasting Diseases :—</b>																	
Premature Birth ... ..	26	2	1	1	30		1										31
Congenital Defects ... ..	3				3		2	2	1								8
Injury at Birth ... ..																	
Want of Breast Milk, Starvation ... ..	1		1		2												2
Atrophy, Debility, Marasmus	16	4	3	3	26	2	2	5	4	4	2	2	1		2	1	51
<b>Tuberculous Diseases :—</b>																	
Tuberculous Meningitis ... ..																	
Tuberculous Peritonitis :—																	
Tabes Mesenterica ... ..												1		1		1	3
Other Tuberculous Diseases...								1		1				1			3
<b>Other Causes :—</b>																	
Erysipelas ... ..																	
Syphilis ... ..	1				1		1										2
Rickets ... ..																	
Meningitis (not Tuberculous) ... ..								2					1		1		4
Convulsions ... ..	3	1	2		6	5	1	3	2	5	2	1	3		1		29
Bronchitis ... ..			2	1	3	4	4	3	1	2	2					2	21
Laryngitis ... ..																	
Pneumonia ... ..						1	2		2	2	1	2	1	4	3	1	19
Suffocation, overlying ... ..																	
Other Causes ... ..	5		2		7	1			1		1	2		1		2	15
	55	7	11	5	78	20	15	20	12	15	11	13	7	13	9	11	224

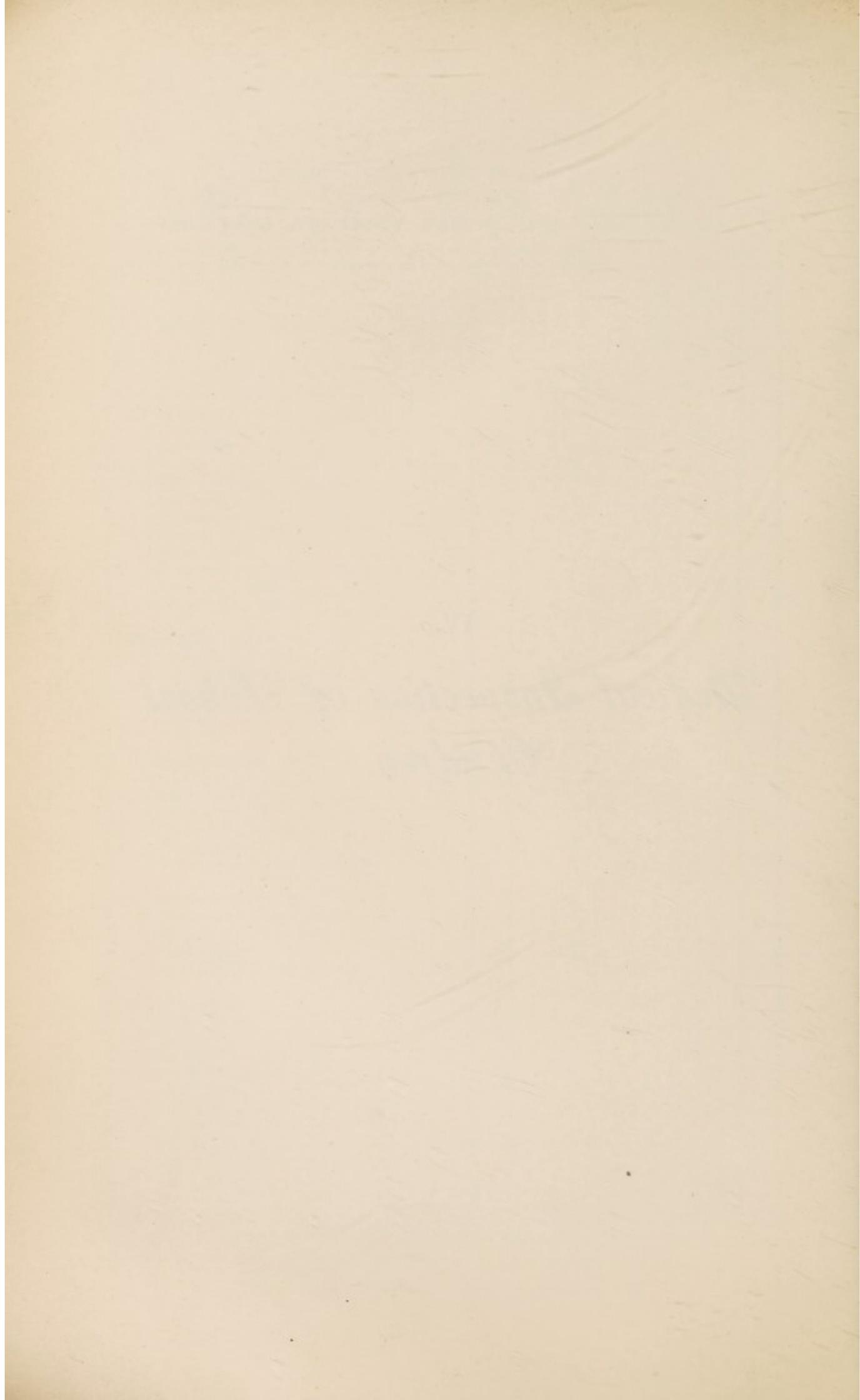
Births in the year :—Legitimate, 1,709 ; Illegitimate, 79.

Deaths in year { Legitimate infants, 219. Deaths from all causes at all ages—971.  
                  { Illegitimate do. 5.

Population, estimated to middle of 1910—56,378.

IV.

*Medical Inspection of School  
Children.*





County Borough of Tynemouth.

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SECOND

# ANNUAL REPORT

ON THE

Medical Inspection of School

Children.

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1910.

PUBLIC HEALTH OFFICE,  
TYNEMOUTH,

MARCH, 1911.

*To the Chairman and Members of the  
County Borough of Tynemouth Education Committee.*

LADIES AND GENTLEMEN,

I beg to submit the Second Annual Report upon the Medical Inspection of Elementary School Children, for the year ending 31st December, 1910. This work has made satisfactory progress during the past year.

The provision of two additional rooms in the Public Health Department for carrying out the necessary duties of this work is proving of very great assistance.

I have again to record my thanks to the Secretary for his valuable advice upon many matters, and to the Head Teachers for their active interest, co-operation, and material assistance in more ways than I can enumerate.

The parents are also to be congratulated upon the sensible and appreciative manner in which they have assisted in this entirely new, but at the same time, highly beneficial work to their children, and, indirectly, to future generations.

Finally, I have to thank you, ladies and gentlemen, for your consistent support in assisting me to carry out my duties.

Yours faithfully,

JAMES McCONNELL.

## SCHOOLS.

The number of Schools in the Borough are 8 Council or Provided, and 7 Voluntary or Non-Provided, Eastern Senior and Eastern Junior being counted as one Council and St. Joseph's R.C. and St. Cuthbert's R.C. as 1 Voluntary School.

The average number of children on the books for the past year was 10,402.

The average attendance was 9,301.

There have been during the past year 4 structural improvements of major importance, namely, 3 at Council Schools and 1 at a Voluntary School, viz. :—

- I. Rebuilding of the Cullercoats Girls and Infant Departments.
- II. Alterations and additions at St. Cuthbert's R.C. School.
- III. Alteration and improved lighting and ventilation at Eastern Junior School.
- IV. Conversion to the water carriage system of the sanitary conveniences at Chirton School.

## VENTILATION.

Generally speaking I consider due attention is being paid to the efficient and continuous ventilation of class rooms. It is still possible, however, to enter unduly stuffy class rooms, not altogether due to faulty or deficient means of ventilation, but rather to certain teachers not realising the value of a constant or repeated flushing of their rooms at intervals with fresh air. In other words, the best possible use of the natural means of ventilation at their disposal is not nearly made so much use of by some teachers as by others.

Again, it is only fair to say that some of the ventilating appliances at the schools were so conducive to draughts that they have either been done away with, or have become disused, and with the small amount of window space made to open it is quite impossible to efficiently ventilate a room occupied by anything from 30 to 60 children for any lengthened period.

## LIGHTING.

The great improvement in the lighting of the Eastern Junior School must prove of much benefit to the children. What were previously dark are now well lighted and airy class rooms.

The new addition to St. Cuthbert's R.C. School is also all that one can wish for in this direction. There is no doubt that one can trace a relationship between the direction and degree of the lighting of a school and the amount of defective vision and eye-strain to be met within its walls.

There is one matter in connection with the artificial lighting of class rooms that requires mentioning, namely, the adequate cleansing and repairing of the incandescent globes and mantles. These being of a friable nature, and out of the ordinary reach, are liable to collect dust and are not always to be seen in a reasonable state of repair or cleanliness so as to give the maximum amount of light which they could otherwise do.

## WARMING.

The most efficient and economical method of warming a school building, combined with a due regard to its adequate ventilation, has always been a difficult problem. With the present existing heating arrangements, it seems almost impossible during the cold weather to secure and maintain a requisite degree of warmth in some of our older schools, and I venture to say this remark likewise applies to a great many schools throughout the country.

There are three schools in the Borough which, in my opinion, err to a degree requiring attention, and have been the source of justifiable complaint, judging from the recorded temperatures taken during school hours, on the part of the teachers concerned, viz. :—

Western and Eastern Council Schools, which are about to receive attention in this matter, and

Priory School. This school, in my opinion, requires alterations to improve the ventilation, lighting and warming. I have seen the temperature charts of the Infant Department, during November and December, and find that

The 9 a.m. temperature on children assembling was 38° on 3 days. The average 9 a.m. temperature on children assembling was 44° throughout November and December.

The average 11 a.m. and 3 p.m. temperature on children assembling was 47° throughout November and December.

The temperature suggested by the Board of Education for school rooms is 55° to 60° at 9 a.m.

I think that whatever other additional means of heating are adopted in schools which already possess large and old fashioned fire-places in the class rooms, these old fashioned fire-places should be replaced by ones of recent date. It seems to me that by their decreased coal consumption alone, over and above the greater warmth they give out, these new fire-places would pay for themselves in a very few years.

#### EQUIPMENT.

It is pleasing to record the attention which is being paid by the Committee in their renewals of school furnishings to improved hygienic arrangements, and the adaptation of proper sized desks to children of different sizes and ages. By adopting, where possible, the Dual Desk of different sizes and easily movable, head teachers are enabled to make the desks fit the different sized children in the same class, instead of the children of different sizes having to assume bad positions in order to reach one desk of uniform size throughout a class.

The provision of small chairs and tables for the Infants instead of desks, and the freedom allowed to their arms in drawing, etc., are decided improvements.

#### SANITATION AND SANITARY CONVENIENCES.

I consider that the schools are being maintained, as regards their sanitation and sanitary conveniences, in a highly satisfactory condition.

In 31 out of 45 departments the drains are under the control of the Caretakers, and have Inspection Chambers in their drainage system.

Any defects found have the immediate attention of the Clerk of the works.

#### CLOAK ROOMS.

Additional accommodation has been provided at the Eastern Junior School, otherwise previous arrangements exist. The accommodation in the older schools of the Borough is much too cramped, and must act, through the contact of adjacent clothing and headgear, as a very fruitful means for the transmission of infection.

The Committee would be well advised to allow ample space in their future Schools for the complete detachment of each child's clothing, and for the fitting of some appliance whereby children's cloaks, coats, etc., can be dried during wet weather.

#### CLEANLINESS OF SCHOOLS.

There is an improvement to record in this direction. This subject has had the careful consideration of the Education Committee, culminating in the adoption of a "Cleansing Register," in which the caretakers state shortly the particular parts of the schools which have had their daily or week-end attention, and produce this register to each Headteacher for his or her remarks and signature each Monday morning. Headteachers are primarily responsible for the cleanliness of their departments, and by this means it is hoped that the power of stating in writing whether departments are satisfactorily cleansed or otherwise will be exercised, and lead to a higher average standard.

The School Visitors are also empowered to ask for this Register, in which they may also make any remarks and attach their signature—a duty which I hope they will not forget to exercise at their visits—thereby again materially assisting in the school work.

A short Memorandum on the Cleansing and Disinfection of Schools was circulated to each caretaker and reads as follows :—

MEMORANDUM ON THE CLEANSING AND  
DISINFECTION OF SCHOOLS.

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The term "disinfection" is frequently used in a very loose sense and such superstition has grown up in connection with the practice that the term may be productive of real harm.

If objectionable smells are noticed, strong smelling disinfectants are used, but the removal of the smell does not necessarily mean the removal of the evil which is causing the smell, so that unpleasant smells should be traced to their origin and that origin removed if possible.

Disinfectants are wasted unless they are scientifically used with the definite end in view of killing disease germs; therefore it is necessary to know the power of the agents we are using and the conditions, such as dilution and time of contact, under which they are likely to be useful.

In carrying out measures to prevent the accumulation of dust and dirt, the conscientious use of soap and water and damp dusting is most important, and taking full advantage of the disinfecting power of sunshine and fresh air, is a valuable adjunct to the use of any chemical disinfectant employed.

Attention to hygiene and cleanliness of the school buildings in its fullest sense is all that, as a matter of daily routine, is required.

The employment of disinfectants tends inevitably to lessen the effective belief in the more natural cleansing methods and measures, and leads to a sense of false security.

Where it is thought necessary to use disinfectants on surfaces, *e.g.*, walls, desks, seats, etc., they should be used in the form of spray or otherwise so that the surface is left wet and allowed to dry naturally. Walls should always be sprayed from below upwards.

Disinfectants should only be used after the most scrupulous attention has been paid to ordinary cleansing and flushing with fresh air.

Disinfection, so far as schools are concerned, is necessary upon occasions when there have been cases of Infectious Disease pointing to school infection, but the part played by school premises in the spread of disease is reduced to a great extent by efficient ventilation and strict attention to the ordinary methods of cleansing.

One disinfectant alone is now used throughout the Schools namely, "Formalin."

I think the Committee might well consider the advisability of appointing a Superintendent Caretaker to supervise in a direct manner the cleansing of the whole of the schools in the Borough.

REVIEW OF ACTION TAKEN TO DETECT AND PREVENT  
THE SPREAD OF INFECTIOUS DISEASES, INCLUDING  
REFERENCE TO ACTION TAKING UNDER ARTICLES 45 (b)  
53 (b) AND 57 OF THE CODE 1909, TO PREVENT THE  
SPREAD OF INFECTIOUS DISEASES.

The Revised Regulations for the prevention of the spread of Infectious Diseases among school children were adopted in January of this year. The amalgamation of the two services has now been in vogue 12 months and the advantages accruing therefrom, particularly over the control and supervision of school children suffering from, or in contact with, the infectious and contagious diseases to which they are especially liable, are apparent from time to time at the Health Office.

During the month of January immediately after the resumption from the Christmas holidays, owing to a somewhat sharp outbreak of Scarlet Fever in the vicinity of and amongst some of the scholars attending Queen Victoria School, and further to allay the fears of the parents of those children, who were inclined to attribute the onset to school infection and therefore keep their children at home, an examination of the throats and visible cutaneous surfaces of the scholars attending Queen Victoria School was made by the School Medical Officer and myself, for the purpose of detecting any "Missed Case" of Scarlet Fever.

The school premises and utensils as far as possible had been previously thoroughly disinfected during the holidays. No suspicious case was seen though none was anticipated, but as the result of our action, we felt justified in giving the school a clean bill of health

and no doubt our action had also the effect of allaying the natural alarm of the parents. No further cases occurred and the school continued its work as usual.

Measles has been present to a greater or lesser degree during the whole year, though it has not been necessary to adopt Departmental or School Closure.

During the month of July, an attempt was made to limit the prevalence of Measles in the Infant Department of Queen Victoria School by excluding for a period of 7 days the most susceptible children just at the time it was thought they might commence to be laid up. In conjunction with this, it must be remembered that the infectious period in measles is quite early, when it may be thought that the child has only a bad cold and is still attending school, though highly infectious to other little ones, and further that the diagnosis, being that of the parent, and not of the medical attendant who has not been called in, is therefore liable to greater error, and makes the control of this disease one surrounded with difficulties. As the result of this exclusion of certain scholars it was not found necessary to entirely close the Infant Department of this School.

In connection with the procedure of Exclusion, it seems to me unfair that any action of the School Medical Officer, short of complete closure, should be so much money lost out of the Ratepayers' pocket. At present, the exclusion of certain scholars is naturally disliked by teachers, though I know they are well aware that it is done in the best interests of the scholars, and have, as I have said before, given us great assistance in this direction, yet the fact remains that every boy or girl excluded by us loses his attendance mark for the whole of the exclusion period, and loses so much in Government Grant.

During the month of May, owing to the notification of two cases of Diphtheria amongst the scholars attending the Priory School, the School Medical Officer and myself made an examination of the throats of the scholars in the Infant Department, and the youngest class in the Mixed Department, and took swabs from those likely to be the seat of "Diphtheria infection." 31 swabs were examined at the Health Laboratory, with the result that three of the children's throats were found to be locating the Diphtheria Bacillus. These children,

though not actually ill, were what are known as "Diphtheria Carriers." It was subsequently found that one of the children actually sat next to one of the cases notified, and was an inmate of St. Aidan's Home. These "carriers" were excluded, and the parents advised to have some local treatment, while the boy from the Home was taken to the Isolation Hospital for a period. The necessary disinfection took place and, no further cases being reported, the school continued to remain open.

Whooping Cough has likewise been the cause of many absentees, though its incidence and distribution never gave rise to any contemplated departmental or school closure.

Chickenpox was prevalent at Cullercoats and Priory Schools during March, and at Queen Victoria Infant Department during October. It was thought advisable to exclude certain children for a limited period at the latter school.

A weekly return of those children absent from school on account of or having been in contact with the most common infectious or contagious diseases is forwarded to the Health Office every week, and a chart is appended to this Report showing the varying weekly incidence of the five infectious diseases, Measles, Whooping Cough, Chicken-pox, Scarlet Fever and Diphtheria, throughout the year 1910.

#### CHILDREN INSPECTED.

The children selected were :—

- I. Those children admitted to the Infant Departments since the last routine inspection (Entrants).
- II. Those children who were expected to leave school before the end of the Educational year.
- III. Commencing 1st September, those children who were between the ages of 7 and 8 at date of inspection.
- IV. Special Cases at Health Office or School.
- V. Inspections in connection with the prevalence of any of the infectious diseases.

VI. Inspections in connection with Section 122 of the Children's Act 1908.

The following Table gives the number of children conforming to I, II and III, classified for Boys and Girls at different age periods.

TABLE I.

Sex.	5-6 yrs.	6-7 yrs.	7-8 yrs.	8-9 yrs.	11-12 yrs.	12-13 yrs.	13-14 yrs.	14-15 yrs.	Total.
Girls	397	177	160	5	1	45	258	18	1061
Boys	472	169	201	2	2	51	255	22	1174
Total	869	346	361	7	3	96	513	40	2235

IV. 506 Special Inspections were made. These are children over and above those for routine inspection in regard to whom parents or teachers have requested a medical opinion.

V. and VI. No record of these inspections was made.

The total number of visits paid to the schools was 251.

The parents of 27 children declined inspection, usually on the ground that if their children required medical attention they would call in their own doctor—a request which was respected. It would be as well, however, to point out to these few parents that the great majority of the parents are in a similar position as regards having their own medical attendant, but yet it has been found possible to give to many of them useful advice or hints, no doubt from the fact that the defect was not gross, or that their own doctor had not seen the child for some considerable period; further that if they would come and see their child inspected, I am sure it would disarm future opposition. It should also be mentioned that the negligent parents do not escape detection by keeping their children at home on the day of inspection, as the power is vested in the School Medical Officer, and those he authorises in writing, to examine the person and clothing of any school child whom he may think requires it.

530 parents or guardians were present at the inspections, 128 with senior children, and 402 with infant children, an increase of 213 over the preceding year.

The following is a classified list of the principal physical defects found at the Routine Inspections for which parents were notified *re* Medical Treatment, if necessary, and for which the children were referred for further re-inspection later :—

TABLE II.

	No.
Eye—External Diseases, Blepharitis, Conjunctivitis, etc. ...	35
Defective Vision, Squint, Unsuitable Spectacles ..	102
Ear—External Diseases, Obstruction ...	9
Suppuration, Defective Hearing ...	26
Skin—Scabies, Ringworm, Impetigo, etc. ...	42
Throat and Nose—Enlarged Tonsils and Adenoids, etc. ...	75
Tuberculosis—Glands, Bones ...	6
Defective Articulation or Stammering ...	12
Mal-nutrition, Debility, Anæmia... ..	16
Rickets ... ..	9
Valvular Disease of Heart ..	11
Nervous Diseases or Disorders ... ..	2
Curvature of Spine ... ..	4
Sores—Feet or Body ... ..	4
Cellulitis ... ..	1
Enlarged Glands—Neck ... ..	1
Deformities... ..	3
Hernia ... ..	1
Exostosis ... ..	1
Microcephalus, Hydrocephalus, Feeble-minded ... ..	4
Oral Sepsis... ..	2
Congenital Syphilis ... ..	1
Verminous—Head with Sores ... ..	7
Head Nits and uncleanliness ... ..	152
Body ... ..	6
Flea-bitten (badly) ... ..	14

I adopted, as far as possible, the same procedure as last year in regard to personally interviewing parents whose children were found to be defective, as I consider this more satisfactory and more likely to be effective in the long run than the sending of a formal notice. Those parents who were unable to be present at the actual inspection being requested to see me at the Health Office at a later date if thought necessary.

194 Children required some medical treatment, and 96 have obtained treatment.

303 Children required some home treatment, combined with attention to some advice tended by myself or Nurse. 49 Children were already undergoing treatment, or parents were aware of the defect and had previously had medical advice. All these children require subsequent supervision or "Following up," and here comes in probably the most important work of medical inspection.

Besides these, there is another large batch of children also requiring supervision ; namely, those with some defect which one would prefer to watch before notifying the parents of any treatment required.

During the past year, I have made a second inspection of those children requiring some treatment, and a third or fourth inspection of a lesser number where treatment was very necessary, and the parents did not seem to realise its urgency. I am of the opinion that my figures err on the low side as regards the number of children who have received treatment, as it has not been found possible to re-inspect those examined towards the latter part of the year, or those whose parents were notified a second time of some defect, and it is more than probable that these defects have been rectified. It must not be assumed that those parents who have not had the defect made good in the first place are necessarily negligent, rather is it due to want of "means" to carry out the requisite treatment, or to ignorance as to where they can obtain suitable medical advice free.

Very often the defect is one that requires very persistent and careful treatment over a lengthened period to ensure its final amelioration. My further comments upon this part of the work appear under the different headings.

GENERAL REVIEW OF FACTS DISCLOSED BY  
MEDICAL INSPECTION.

The previous important illnesses, infectious or non-infectious, are ascertained from the parents by means of printed notices upon which they are requested to fill in certain particulars, and it was found that many children had already had more than one of the infectious fevers. From a summary of such notices the following Table was compiled :—

Dept.	Examined.	Measles.	Whooping Cough.	Chicken pox.	Scarlet Fever.	Diphtheria.
Seniors	897	619	319	125	100	20
Infants	1338	726	423	128	65	23

I hope, during the present year, to assist the Head Teachers of the Infant Departments in the further control of Measles, by the adoption of a Measles Register, whereby every class teacher will know what children in her class have or have not had measles, and by this means we may be able to exclude for a time all susceptibles at an early stage at epidemic times, and perhaps prevent the present loss of attendance, which is spread over a longer period by children falling out in small numbers week by week.

The number of children with or without vaccination marks and the number of marks was as follows :—

DEPT.	EXAMD.	MARKS.				
		0	1	2	3	4
Seniors	897	252	184	138	100	223
Infants	1338	204	305	241	164	424

CLOTHING AND FOOTGEAR.

163, or 7·3% of the children, had clothing unclean, insufficient, or in disrepair. In contrast to this there is to be seen a number of children with garments too many in number, and cumbersome, where fewer would do if only of a warmer material, i.e. flannel or wool. I deprecate all tight clothing round a child's chest. It seems to me the art of darning, patching, and sewing on buttons, has almost disappeared from some homes. It should not be forgotten that boys' clothing requires washing as well as girls.

179, or 8% of the children, had no boots, or boots in a bad state of, or beyond repair.

## CLEANLINESS.

The following two tables give the results found for Head and Body, though where you find evidence of vermin on the former, there is usually an accompanying degree of infection of the latter.

## HEAD.

Dept.	Sex.	Examd.	Clean.	Scurf.	Nits.	Vermin.	Vermin. with Sores.
Senior	Boys	473	461	10	1	1	—
Senior	Girls	424	302	—	122	—	—
Infant	Boys	701	670	6	15	7	3
Infant	Girls	637	476	2	146	7	6

i.e. 13·7% of the children bore evidence of vermin in the hair.

## BODY.

Dept.	Sex.	Examd.	Clean.	Somewhat Dirty.	Dirty.	Verminous.
Senior	Boys	473	434	18	17	4
Senior	Girls	424	400	13	6	5
Infant	Boys	701	638	37	14	12
Infant	Girls	637	614	9	10	4

i.e. 5·5% of the children were not quite clean, or were dirty, and 1·1% had actual vermin on the body.

79 children were flea-bitten.

I am of the opinion there is a further improvement to record in the general standard of cleanliness.

Comparing the results of five schools inspected in 1908, 1909 and 1910 the results are :—

Year.	Sex.	Examd.	Verminous or Nits.
1908	Boys and Girls	501	24·3 per cent.
1909	„	499	16·2 „ „
1910	„	742	14·5 „ „
1908	Infant Girls	144	43·8 „ „
1909	„	137	30·0 „ „
1910	„	178	22·5 „ „
1908	Senior Girls	97	45·3 „ „
1909	„	81	38·0 „ „
1910	„	178	35·5 „ „

In connection with this subject, it is quite apparant that a higher standard of cleanliness has been aimed at and attained in different schools of the same social standing, and in different departments of the same school. Again, there is a certain amount of preparation for inspection, which perhaps might delude one, but as a matter of fact the effects and product of vermin cannot be got rid of in the short space of one day's notice. I am certain a much sharper look-out is being kept by all concerned, to try and get this most unsatisfactory state of affairs considerably lessened, and I am equally certain there is no more fruitful source of loss of school attendance than conditions arising from uncleanliness, apart from the unnecessary suffering involved.

In the summer months "Surprise Visits" were paid to the following schools and departments. Each child simply passed in front of me and the examination was visual only, not involving interference with the clothing.

The following results were noted.

School and Department.	Exmd.	Clean.	Vermin.	Nits Numerous.	Nits Few.	Vermin with Sores.
Western Junior Girls ...	165	118	4	26	15	2
Chirton Girls ...	110	82		21	7	
Eastern Girls ...	156	78	1	35	40	2
„ Senior Girls ...	100	74	3	18		5
Royal Jubilee Girls ...	209	182		17	10	
„ Junr. Girls ...	112	90	1	13	8	
Percy St. John's Girls ...	97	87		7	3	
St. Cuthbert's Girls ...	276	248		20	4	4
	1225	959	9	157	87	13

*i.e.* 21% of the children bore evidence of vermin.

13 were excluded, and placed under my own observation until made clean, the remainder were told of their unsatisfactory condition, and white cards with instructions given to the worst cases.

A second visit was paid at a later date for the purpose of re-inspecting those unsatisfactory with these results :—

School and Department.	Exmd.	Clean.	Vermin.	Nits Numerous.	Nits Few.	Vermin with Sores.
Western Junior Girls ...	47	26	1	11	8	1
Chirton Girls ...	21	6	4	10		1
Eastern Girls ...	71	29		22	19	1
Royal Jubilee Girls ...	19	4		8	7	
.. Junior Girls	9	4		1	4	
Percy St. John's Girls ...	7	1	2	2	2	
St. Cuthbert's Girls ...	28	19		4	4	1
	202	89	7	58	44	4

*i.e.* 9% of the previous total examined still bore evidence of vermin.

I think these figures speaks for themselves, and prove how justifiable are some of the complaints which have been made to me personally by parents finding their children infected at school. I am certain that the School Nurse will do good work in this connection.

I should mention that a similar inspection was made of 210 boys, and only 8 were found unsatisfactory. I think therefore that if many of the parents would cause girl's hair to be worn short or plaited they would save themselves endless trouble and anxiety.

### HEIGHTS AND WEIGHTS.

The average heights and weights for the whole Borough classified for age and sex was as follows :—

#### HEIGHT.

BOYS.				GIRLS.			
Age.	No.	Inches.	Centimetres.	Age.	No.	Inches.	Centimetres.
5	483	40·5	103 0	5	415	40·0	101·6
6	145	41·7	106·0	6	159	42·0	106·6
7	199	44·0	111·8	7	151	43·5	110·5
12	57	55·0	140·0	12	40	55·5	141·0
13	289	56·0	142·4	13	271	56·0	142·4
14	21	58·0	147·5	14	30	58·0	147·5

## WEIGHT.

Age.	Boys.				GIRLS.			
	No.	lbs.	Kilos.		Age.	No.	lbs.	Kilos.
5	483	38·6	17·5		5	415	37·6	17·0
6	145	40·9	18·5		6	159	40·6	18·4
7	199	44·1	20·0		7	151	43·8	19·8
12	57	75·3	34·1		12	40	74·7	33·8
13	289	77·3	35·1		13	271	79·3	36·0
14	21	84·0	38·1		14	30	84·6	38·4

Compared with three neighbouring towns the results are :—

TABLE III.

COMPARISON OF HEIGHTS AND WEIGHTS OF TYNEMOUTH CHILDREN AND CHILDREN OF NEIGHBOURING TOWNS.  
HEIGHT.

Age.	TYNEMOUTH.		NEWCASTLE.		GATESHEAD.		SOUTH SHIELDS.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
5	*40·5	40·0	39·9	39·7	39·9	39·5	40·03	40·3
6	41·75	42·0	41·4	41·1	41·7	41·5	41·66	41·82
7	44·0	43·5	43·5	43·4	40·4	42·9	42·57	43·76
12	55·0	55·5	53·0	52·4	53·2	52·9	53·6	56·12
13	56·0	56·0	54·8	55·8	54·9	53·1	54·33	56·8
14	58·0	58·0	58·0	56·8	56·3	57·3	53·04	57·93

## WEIGHT.

Age.	TYNEMOUTH.		NEWCASTLE.		GATESHEAD.		SOUTH SHIELDS.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
5	*38·6	37·6	37·5	37·0	38·1	36·4	37·13	35·88
6	40·9	40·6	39·8	39·1	40·5	39·4	39·14	39·19
7	44·1	43·8	43·6	42·6	43·5	41·8	41·5	42·83
12	75·3	74·7	67·3	66·7	67·5	67·1	70·94	71·43
13	77·3	79·3	72·2	75·1	74·7	74·2	72·16	73·93
14	84·0	84·6	80·0	81·1	80·2	83·8	75·68	83·04

\* For the number of children inspected at each age period in the Borough of Tynemouth see the previous Table.

## NUTRITION.

Dept.	Examd.	Good.	Below Normal.	Normal.	Bad.
Senior	897	97	570	201	29
Infant	1338	108	794	403	33

From these figures it will be seen that 2·7 % of the children examined are classified as of bad nutrition and the cause giving rise to this condition in any given case is, as a rule, not difficult to determine.

But I would particularly like to refer more in detail to the number of children, namely, some 27 %, whose nutrition is classified as "Below Normal." Here I believe it is more difficult to assign the particular reason in each case, though it is quite possible to detect and state generally some of the apparent factors entering into this question. No doubt a portion of it can be attributed to the local distress during the past two years or more, but I am certain that the major portion of it is not attributable to this cause, and is rather due to non-transient and preventable causes. Firstly, it should be remembered that a child must not only have and be able to assimilate enough nutritious material from his or her daily food for immediate purposes, but also be able to assign so much towards growth and building up a constitution; secondly, that it is quite possible to be feeding, and yet not adequately nourishing a child; thirdly, that mal-nutrition is not only a food question, but also one associated with bad hygienic conditions prevailing or practised in the home; fourthly, that children are naturally active, and nothing should be allowed to interfere with a child living an active open air life by day, and having ample sleep by night in as pure an atmosphere as the home will permit; fifthly, few children are born delicate, compared with those that are made delicate; lastly, that the foundations of a good constitution are made in the first few years of life, and that ground once lost is difficult to regain.

It is also apparent to me that a large number enter upon their school career—a time of strenuous endeavour—already below par, and further that this condition prevails both among the better and

poorer classes of children. I would particularly warn parents against that mistaking form of kindness known as "Coddling." Correct methods of living and nurture are becoming increasingly a part part of the school curriculum, and it will be by this means that we must hope for improvement in future years. I believe that greater stress is paid in some schools to physique and physical exercises than in others, and that it is possible to trace the effects of this at the routine inspections, proving that all play-grounds should be kept up to a high state of efficiency so that exercises can be performed as far as possible out of doors. Lastly, I would say that if children have to attend school regularly and improve both physically and mentally, they must not be asked to do much menial work at home of an arduous and in-door nature, but rather that it should be easy and out-door.

In the month of November the Council decided to adopt the Provision of Meals Act (1906), and for that purpose permission was sought and obtained from the Board of Education to the expenditure of £300 from the local rates for the year ending March 1911. The free meals were commenced in the early part of December, and consisted of one substantial and hot meal at 12 o'clock each day, served with the voluntary assistance of several local ladies and teachers at different and conveniently placed centres, apart from school premises. The meals were prepared at the Soup Kitchen in Wellington Street, and sent in specially constructed appliances to each centre before noon.

I should also mention that, through voluntary effort, the meals were continued during the Xmas holidays. I have been in intimate association with the feeding of necessitous school children during the whole period, and can testify to the most satisfactory and beneficial results accruing therefrom.

#### EYES.

External disease was present in 70 children as follows, 25 cases of Conjunctivitis, 25 cases of Blepharitis, 19 cases of disease of Cornea, and 1 case of Cataract.

During September and October there were some cases of conjunctivitis of an infectious nature, necessarily involving a few exclusions from school.

#### VISION.

The following table records the vision of each eye in the senior children examined, classified for boys and girls of 7, 11, 12, 13 and 14 years of age.

In order to understand this Table, it must be understood that the child stands at one distance throughout the test, namely 6 metres or 20 feet, and in recording the actual vision ascertained, a fraction is used in which the numerator always represents the distance, *i.e.* 6 metres, and the denominator represents the actual vision in any case. In this way it has been found possible not to print the numerator, as it is always 6, and only the denominator is stated. The two rows of figures give the record for each eye separately, though whether the right or left eye is not indicated.



There were 31 cases of squint, and 24 children were wearing spectacles. The parents of those children whose vision was below 6/12 in both eyes, or who had developed a squint, were notified or advised to procure medical advice, with a view to the provision of suitable spectacles. Children very often are averse to wearing spectacles, and many of the parents hold extraordinary views upon the subject, forgetting that the condition is one liable rather to become worse than better in future years.

I should mention that 25 cases of defective vision occurring amongst those children who are inmates of the Workhouse have been provided with suitable spectacles by the Guardians.

#### TEETH.

The Table set out on page 24 records the number of decayed teeth in boys and girls at different age periods.

Cards stating shortly the value of, and reasons for, daily cleansing of the teeth have been given to the elder children inspected, and I believe, generally speaking, that there has been more attention paid in this respect.

Whatever action, local or national, is taken in future years, regarding the conservative treatment of children's teeth, it must be accompanied by teaching and instilling into the children the absolute necessity of the daily cleansing of the teeth.

## NUMBER OF DECAYED TEETH.

TABLE V.

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total Exd.
BOYS—5 Years	*67	45	52	74	51	45	36	25	17	30	13	6	6	1		1	2				1	472
6 "	22	15	23	21	21	17	17	9	9	5	5	1	3	1								169
7 "	13	18	21	27	25	32	21	19	12	5	6		2									201
8 "				1				1														2
11 "				2																		2
12 "	1	8	14	7	8	5	2	5			1											51
13 "	23	35	49	51	45	24	9	11	8													255
14 "	2	4	5	3	4	1	2			1												22
Totals	128	125	164	186	154	124	87	70	46	41	25	7	11	2		1	2				1	1174
GIRLS—5 Years	58	51	36	43	54	28	31	22	20	14	13	3	2								1	367
6 "	22	11	18	26	25	19	11	17	11	6	6	1	3	1								177
7 "	11	13	21	14	17	22	22	12	7	3	6	1			1							150
8 "			1	1			1															4
11 "																						1
12 "	4	11	6	9	6	4	4	1														45
13 "	22	33	56	41	48	32	7	10	4	1	1											255
14 "	1	6	4	2	1	3						1										18
Totals	120	125	142	136	151	108	76	62	42	24	26	6	5	1	1						1	1026

\*i.e.—67 Boys at 5 years old had no decayed teeth, and 45 Boys had one tooth decayed, etc.

## ENLARGED TONSILS AND ADENOIDS.

The number of children with an enlargement of the Tonsils, accompanied, more probably than not, with the presence of Adenoids, and an enlarged condition of the glands in the neck, was, as seen from the next table, high, but it must not be assumed that this enlargement, or presence of Adenoids, except where it was apparent that it was giving rise to deafness, mental dullness, general delicacy, or discharging ears, was one in which you would suggest medical interference, but rather some home treatment on the part of the parents in the way of practicing "Breathing Exercises" at home, backed up by supervision and individual attention on the part of teachers and school doctor. For this purpose all such cases were pointed out to the teachers, and a notice printed below sent to those parents unable to be present. I attach great value to these exercises, and have to thank head teachers for the increasing attention given in this direction.

## NOTICE OF IMPROPER BREATHING.

To the Parents or Guardians of.....

Your child breathes, or is inclined to breathe through the mouth instead of the nose, and so is more liable than ordinary children to diseases of the nose, throat, and chest.

It is important that your child should practice, in the fresh air, the breathing exercises taught in the schools for 10 minutes twice a day, always remembering to keep the air passage through the nose clear by means of a pocket handkerchief.

	No. Exd.	TONSILS.		ADENOIDS.		Mouth Breathing.	Enlarged Glands of Neck. Cervical.
		Enlarg.	Much Enlarg.	Probable	Obvious		
Boys (leaving)...	330	113	4	12	6	8	80
Girls ,, ..	322	119	2	10	11	8	66
Boys (7-8) ...	184	27	3	3	8	7	48
Girls (7-8) ...	141	32	1	1	6	12	28
Boys (5-7) ...	660	217	9	24	23	31	200
Girls (5-7) ...	598	184	11	26		52	143
Total ...	2235	692	30	76	54	118	565

I would draw attention between the number of children with some degree of un-healthiness of the back of the nose and throat, and the number classified as "Below Normal" in nutrition, as I believe there is a relationship, though undoubtedly the worst cases of enlarged Tonsils and Adenoids seem to run in members of the same family. If I may venture an opinion as to the causation and amelioration, apart from medical treatment of an unhealthy throat, I would state that there are two factors tending to produce it, viz. :—(A) Allowing a constant running from the nose, and discharge from the back of the throat to collect, without employing some simple means to remove the discharge, such as a handkerchief—an article most conspicuous by its absence in the schools—and thereby prohibiting the child from breathing through the nose. (B) The rearing of children, up to 5, in unduly hot or impure atmospheres, or "coddling" in any form. As stated before, I believe breathing exercises, practised in a pure atmosphere, physical exercises, outdoor games, and daily cleansing of the teeth, are the means to prevent or ameliorate slight cases.

#### EARS AND HEARING.

Evidence of ear disease was present as follows :—

External Ear Disease.	Obstruction.	Right.	Suppuration. Left.	Both Ears.	Somewhat Deaf.	Deaf.
4	9	11	10	3	25	6

Attention has been given to impressing upon parents the danger and evil effects accruing from discharging ears, and the necessity of perserving in some daily attention apart from seeking medical advice. All the cases of deafness seen were the result of this complaint in the first place. Satisfactory tests for the graduation of hearing I find difficult in many schools owing to the noise from adjacent rooms or street.

#### MENTAL CONDITION.

Bright.	Fair.	Dull.	Backward.	Mentally Defective.
329	411	118	38	1

The mental condition of the senior children only is recorded. Very often dullness can be traced to old defects of the nose and throat, ear or eye, general ill-health, mal-nutrition, or bad home surroundings, and it is exceptional to see the child of average or good physique dull in intelligence. The backward child is as a rule a bad attender.

#### DEFECTIVE ARTICULATION.

Defective Articulation was noted in 25 cases, and stammering in 6 cases. I consider all these cases would improve, provided sufficient individual attention could be allotted to them.

#### SKIN DISEASES.

Ringworm, Scalp.	Ringworm, Body.	Scabies.	Impetigo.	Other Skin Disease.
8	17	24	13	17

The most common and important skin diseases occurring in school-work, in that they are of an infectious or contagious nature, are Impetigo, Scabies and Ringworm.

Impetigo is as a rule easily cured.

Scabies or Itch was present in 24 cases. This disease is the cause of considerable loss of School Attendance, as the children must be excluded, and the treatment has to be most thorough, involving both body and clothing probably of the majority of a household to completely eradicate it.

Ringworm. I consider some very good work has been done in connection with the prevalence of this disease in Schools. The parents, generally speaking, once they realise the chronicity and infectivity of this disease, have had the complaint thoroughly treated. It was however noticed that in some cases the treatment was not so thorough, and this necessarily involved a longer period of exclusion from school being enforced. I would only repeat that for the complete eradication of this most troublesome complaint, treatment has to be

both very thorough and persistent. No children are re-admitted without a Medical Certificate, and before granting such Certificate, the medical men of the neighbourhood have materially assisted us in submitting specimens of hair for microscopical examination. 201 microscopical examinations were made, 169 were positive and 32 negative.

Though we, as an Educational Authority, are correct in excluding such cases from our schools to safeguard the other scholars, yet I am convinced that a certain proportion still continue to mix with children in their games out of school hours, and therefore are still liable to spread infection.

Other forms of Skin Disease were chiefly of a seborrhœic nature.

#### HEART AND CIRCULATION.

Valvular disease of Heart was present in 8 children, usually known to the parents, but in 2 or 3 cases not so.

42 Children had some impurity of the Heart Sounds justifying one to make such a record on the Inspection Card.

Anæmia was noted in 38 cases.

#### RICKETS.

Head.	Chest.	Long Bones.
19	64	58

In 10 cases this disease had given rise to a marked degree of Knock-knee or Bowed-legs or chest deformity.

#### TUBERCULOSIS.

Glands.	Bones or Joints.	Lungs.	Spine.
4	2	3	1

In 7 of these cases the condition was or had undergone medical treatment, and in the 3 lung cases, the diagnosis was confirmed by an examination of the Sputum for the Tubercle bacillus.

## NERVOUS DISEASES, &amp;c.

Nervous diseases or disorders	11	Curvature of Spine	2	
Microcephalus	...	1	Malformations	21
Hydrocephalus	...	1	Mentally Dull	1
Chorea	...	3	Cellulitis	3
Bronchial Catarrh	...	13	Abcess	5
Epilepsy	...	3	Other Disease or defect	16

## SPECIAL CASES SEEN AT SCHOOLS :—

## SKIN :—

Ringworm	2	
Impetigo	...	2
Other Skin Disease	...	2

## EARS :—

Suppuration	...	7
Deafness	..	1

## UNCLEANLINESS :—

Person and clothing...	2	
Body Vermin	...	8
Head	..	3

Caries of Spine	...	1
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Curvature of Spine	...	1
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Tuberculous Glands		1
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## EYE :—

External disease	...	6
Defective vision or squint		75
Phlyctenular Conjunctivitis		6
Other Eye disease...		2

Nervous disease	...	2
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Mal-nutrition	...	3
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124

55 of these cases have received attention. 70 remain under or requiring further supervision.

TABLE VI.

## SPECIAL CASES SEEN AT HEALTH OFFICE.

Disease or Defect	Treated or Undergoing Treatment.	Under or requiring further Supervision or Untreated.
Skin :—		
Ringworm Scalp	86	6
Ringworm Body	17	
Scabies	17	
Impetigo	13	1
Other Skin Diseases	17	
Uncleanliness :—		
Person and Clothing	5	
Body Vermin	8	
Vermin Head with Sores	48	
Vermin or Nits	13	
Eye :—		
External Diseases	6	
Defective Vision and Squint	9	15
Phlyctenular Conjunctivitis	13	4
Other Diseases	1	
Ears :—		
Suppuration	13	
Defective Hearing		2
Enlarged Tonsils and Adenoids	3	7
Infectious Fevers :—		
Suspected Whooping Cough	2	
Diphtheria Carrier or Contact	4	
Scarlet Fever Contact	2	
Suspected Measles	1	
Tuberculosis :—		
Lungs	3	
Joints	1	
Glands	1	
Valvular Disease of Heart		2
Mal-Nutrition Anæmia	9	
Chorea	3	
Nervous Diseases	3	
Epilepsy		4
Cellulitis	3	
Abscess	5	
Mental Deficiency		7
Rickets	4	
Deformities	1	
Unclassified	16	
Holiday Agency	7	
Total	334	48

92 of these cases were submitted for inspection by the Secretary.

Special cases are seen at the Health Office on Wednesday afternoons and Saturday mornings. The number of cases submitted and their nature prove the necessity for some such arrangement. Further, the attendance of a parent or guardian is practically assured, when any defect or treatment necessary can be pointed out to them personally. From a record of visits paid to the Health Office, I find that there have been 807 visits and re-visits since 1st March, 1910, to December 31st, 1910.

246 children were excluded from, and 143 children re-admitted to school by Certificate signed by the Chief School Medical Officer.

#### REVIEW OF THE METHODS EMPLOYED OR AVAILABLE FOR THE TREATMENT OF DEFECTS.

The parents of those children, in whom defects were found necessitating treatment, were advised or notified to consult their medical attendant. Such parents as were unable to pay for medical advice were informed of the different local charitable institutions where they could receive treatment free or at a nominal fee.

In the month of September the Council decided to appoint a part-time School Nurse to assist in the work of medical inspection, in the place of the nurse from the Dorcas Society, who previously assisted me at the examination of the elder girls.

I find, as a rule, I can dispense with the Nurse's services at the actual inspections; the Head Teacher's or Teachers' services, so willingly rendered, being enough for all practical purposes. By this means I have been able to allocate to the Nurse, work of a much more useful nature, viz. :—(A) That of visiting schools for the purpose of inspecting children whom the Head Teachers think require some attention, subsequently following these cases up, and reporting or bringing to my notice, as a special case, any that may require medical attention. (B) Visiting and revisiting the homes of certain children found defective at the routine or special inspections, tendering suitable advice to the parents as regards treatment, and following up cases excluded, so as to ensure as speedy a return to school as possible.

184 home visits and revists were made by the School Nurse from the 1st October to 31st December, 1910, besides many to the Schools in the Borough.

I consider good work has been done here already, and I can point to a number of children, who, having been absent for varying periods from causes arising, in the first place, from parental neglect, have made, as a result of the supervisory measures adopted, very speedy recoveries and an early return to school. By adopting a firm attitude in this unpleasant part of the work, I believe we have indirectly saved some of these parents from having to report them for more drastic measures, and perhaps punishment elsewhere, a recourse which I, as an Education Officer, think should only be utilised as a very last resort. It was found necessary to report three parents to the N.S.P.C.C.

I think the Committee would be well advised to consider the question of bringing into play Section 122 of the Children's Act 1908, empowering them to cleanse children found in a verminous, foul or filthy condition, after a preliminary notice has been served upon the parents requiring them to do this in the space of 24 hours, and having failed to do so. This would necessitate providing a "Cleansing Station" at some convenient place where these children could be taken voluntary by the parents, or compulsory by the Education Authority. I believe some such station necessary, not only in verminous cases, but also in cases of "Itch" of which I have seen on several occasions whole households infected, even extending to neighbours, primarily infected no doubt in the first place from some previous case, but for the extermination of which nothing short of the complete disinfection of every particle of clothing, bedding, etc., combined with suitable treatment to kill the parasite in the skin suffices.

I must refer the Committee to the number of children with defective vision attending the schools, and in revising these cases, I find a small percentage only have procured the necessary spectacles. I would suggest that some further local provision be made whereby parents, unable to pay in one sum for spectacles, could on presentation of the prescription have them provided at a reduced rate out of a local fund, to be paid for subsequently by instalments.

BLIND, DEAF, MENTALLY OR PHYSICALLY DEFECTIVE,  
AND EPILEPTIC CHILDREN.

The following is a classified list of children, at present scholars at different Institutions.

BLIND.

Two Scholars at Royal Victoria School, Newcastle-on-Tyne.

Two Scholars at Catholic Blind Asylum, Liverpool.

DEAF AND DUMB.

Seven Scholars at Northern Counties' Institution, Newcastle-on-Tyne.

MENTALLY DEFECTIVE AND EPILEPTIC.

One Scholar at Hunslet Hall Road Special School, Leeds.

During the past year a further survey and examination has been made of the children in this Borough who have exhibited signs of extreme mental dullness or feeble-mindedness of a greater or less degree, such as would justify one in certifying them for admission to a special school, and in the report drawn up in the month of June, by the Secretary and myself, it was computed that there were then 24 children conforming to this class. As the result of that report, the Education Committee decided to appoint a small deputation to see and learn as much of the practical working, cost, and results attained at two or three of these special schools at present in existence. A further report was then presented, and it was decided to allow the matter to stand over so far as making any local provision, and to appoint representatives to the joint conference of the Boards of Guardians and Education Committees of the Counties of Northumberland and Durham to see what could be done by combined action in this matter. This conference has now met, and decided to appoint a Committee to consider the whole subject in detail, and report to a further conference later.

I think one is on safe ground in asserting that it is generally agreed that further legislative power needs to be conferred upon Education or other Authorities dealing with these cases whereby it will be in their power to enforce the further detention in farm colonies, etc., after the age of 16 of those children so feeble-minded,

- (1) as to be unable to procure suitable employment, or contribute towards their upkeep in later years, and
- (2) as unfit to be allowed free to perpetuate their stock.

Personally I believe that no Education Authority is efficiently equipped to undertake or grapple with the education of the various mental grades of children found in any given locality unless it has and maintains special facilities for the further education not only of those above the average or of average intelligence, but also of those dull and backward, or, lastly, mentally deficient. We must not delude ourselves by imagining that by not undertaking the care of the last class of children early, however unsatisfactory the results, we have heard the last of them, because, as is well known, many subsequently with their progeny are in and out of the workhouses or other institutions of this country.

A possible local solution, considering the likely number of the mentally and physically defective to be about 40, and provided the sanction of the Board of Education could be obtained, might be the purchase or renting of a local private house in its own grounds, suitably altered and partitioned off for the two kinds of defect. This school would further conform to an open air school, a class of school which has been found to be especially advantageous for those children requiring special care on account of some physical weakness.

#### EXAMINATION OF PUPIL-TEACHERS OR TEACHERS.

12 Candidates as Teachers were examined, and certified as able to undertake their duties.

One Candidate was referred for further examination at the end of three months, and was then certified as satisfactory.

Two Pupil-Teachers were examined with a view to ascertaining their physical capability of entering the teaching profession. One was passed and the other rejected.

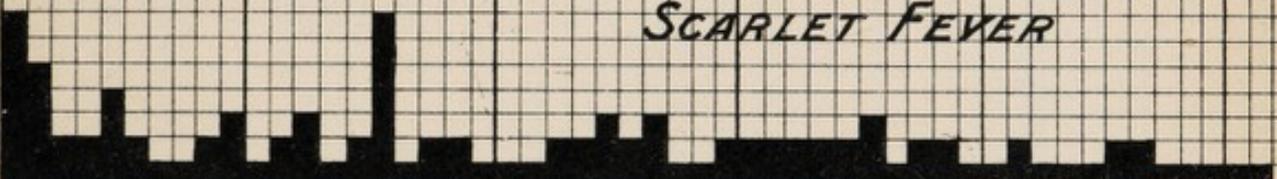
# INFECTIOUS DISEASES SCHOOL CHILDREN

1910.

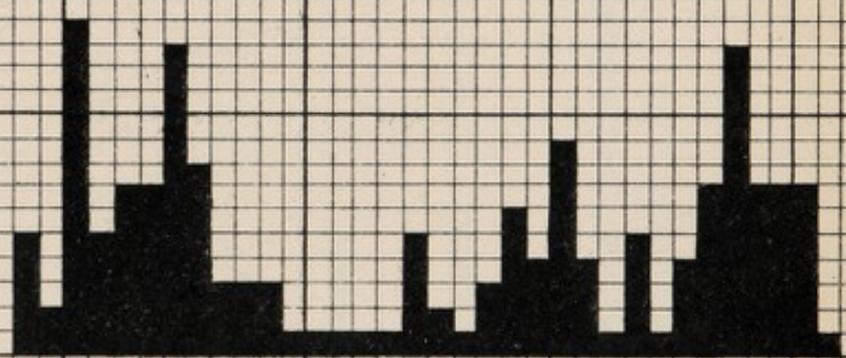
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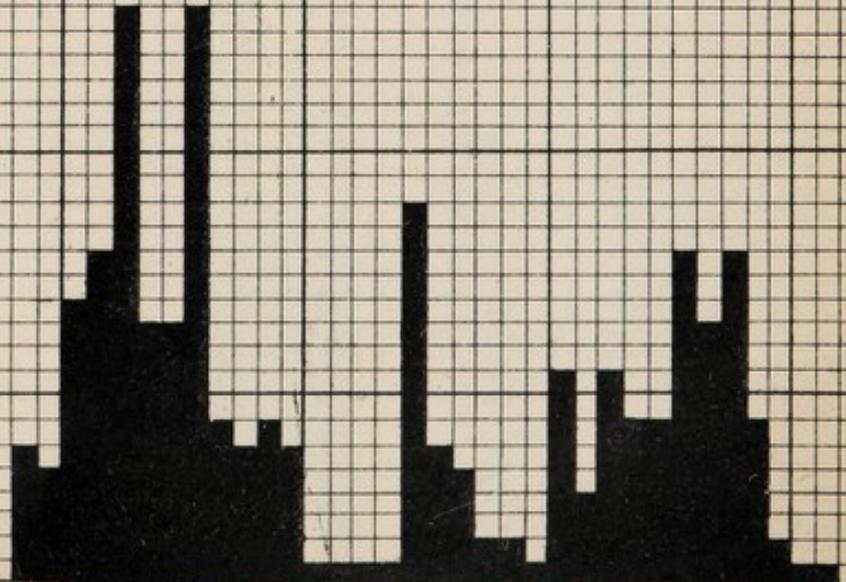
SCARLET FEVER



CHICKEN POX



WHOOPING  
COUGH



2 10 22 29 5 12 19 26 5 12 19 26 2 9 16 23 30 7 14 21 28 4 11 18 25 2 9 16 23 30 6 13 20 27 3 10 17 24 1 8 15 22 29 5 12 19 26 3 10 17 24 31

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