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Cockermouth
Rural District Council.

Annual Report

OF THE

MEDICAL OFFICER OF HEALTH,
JOHN PENNY, D.Sc., M.B., F.R.S.E.

For the Year 1909.

Together with the Summary of Work of the

INSPECTOR.

COCKERMOUTH :
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1910.

COCKERMOUTH RURAL DISTRICT.

TO THE CHAIRMAN AND MEMBERS OF THE
RURAL DISTRICT COUNCIL.

Gentlemen,

The time has again arrived for my submitting to you my Annual Report as Medical Officer of Health for the Cockermouth Rural District. This Report giving an account of the public health of the District during the year 1909, the incidence of infectious disease in different parts of the District, the measures taken to prevent the spread of disease and to improve the sanitary conditions of the District, with the usual tables showing the comparison of the birth-rate and death-rates at different ages, and from different causes, during the year, is the Third Annual Report I have made, as Medical Officer of Health, of the Cockermouth Rural District.

The year has been an exceptionally wet one and the mean temperature was below the average. I think these conditions are in some measure responsible for the marked decrease in the infantile mortality, and on the whole, however, notwithstanding the damp, does it appear to have had any marked effect upon the General Death-rate.

The following is a statistical summary of the birth and death-rates for the year compared with the rates for England and Wales, for the years 1909 and 1908.

Rates calculated per 1000 of the population :—

	Cockermouth Rural	England and Wales	
	1909.	1909.	1908.
Birth-rate	30·11	25·6	26·5
Corrected Death-rate	13·57	14·5	14·7
Infantile Mortality	*62	*109	*120
Zymotic Death-rate	·58	1·12	1·34
Phthisis Death-rate	·80	—	1·115
Cancer Death-rate	·94	—	·923

(Note : *These figures are per 1000 births and not per 1000 of the population.)

In conclusion I wish to express my indebtedness to G. S. Wilson, Esq. (Broughton Grange), for furnishing me with the rainfall report included among the tables annexed to this report ; and also to record my thanks to the Clerk, the Inspector of Nuisances, the Members of the Sanitary Committee, and the District Council for their kindness and support throughout the year.

I have the honour to be, Gentlemen,

Your obedient servant,

JOHN PENNY.

REPORT.

The area of the district in statute acres (exclusive of area covered by water) is 158, 113'464.

Area,

The district presents a great diversity of surface as from its central position and extensive area it commands the most magnificent mountain, lake and river scenery of any in the County of Cumberland. It extends from Threlkeld Granite Quarries to the Solway near Allonby, and from Dunmail Raise to Distington. The drainage of the District is mainly accomplished by means of the River Derwent and its tributaries, the Greta, Bloomer, Cocker and Marron. The Derwent rises near Scawfell Pikes and flows in a northerly direction through the Borrowdale valley into the southern end of Derwentwater. At Portinscale, about one mile west of Keswick, it leaves the lake and receives the water from the Greta (which has its source in Scales Tarn lying at the foot of a perpendicular rock on Saddleback), and into which St. John's Beck discharges after flowing from Lake Thirlmere through St. Johns-in-the-Vale. Three miles north west of Keswick the Derwent enters Bassenthwaite Lake, and after flowing through this expansive sheet of water leaves it at the opposite end near Ouse Bridge where it continues its tortuous and picturesque course in a westerly and south westerly direction to Isel to receive the water from a tributary (Bloomer), draining the Bewaldeth district after which it flows to Cockermouth, where it is joined by the Cocker which drains the lakes of Buttermere, Crummock and Loweswater through the vale of Lorton, afterwards flowing in a westerly direction for about five miles to take the water from the Marron and to continue its journey to Workington where it discharges into the Irish Sea.

Physical Features.

Another river, the Ellen, which has its source in Overwater partly forms the boundary on the north side between the Rural District of Cockermouth and Wigton and eventually flows into the Solway at Maryport.

The principal industry is agriculture although a certain percentage work at the coalmines and quarries.

Chief Occupation of the Inhabitants.

Beneath the red marl of the western district coal is found. Appertaining to the Whitehaven coalfield some of the local seams extend for three or four miles under the sea. Whence collieries proceed along the coast past Harrington, Workington, Flimby, Broughton Moor, Maryport and extend inland to Aspatria and Mealsgate.

Limestone is abundant in many localities and slate of excellent quality is found at Borrowdale and at the extensive quarries high up on Honister Craggs.

Climate

The climate is variable, as in the mountainous localities it is often wet and piercing cold, while the lowlands possess a mild temperature. The prevailing winds are from south west and being charged with moisture discharge a heavy rainfall.

Plans

Plans for New Buildings approved in 1909.

PARISH	New Build'gs (Houses)	Addi- tions	Stables, Farm Buildings, etc., etc.
Borrowdale	1	2	...
Braithwaite	1	3	Slaughter House
Bridekirk	...	1	...
Broughton Moor	1	...	...
Bullgill	2	3	...
Buttermere	...	1	...
Camerton	...	1	...
Dearham	7	2	...
Embleton	1	4	...
Flimby	...	2	...
Gcat	...	1	Fire Escape at Mill
Great Broughton	1	1	...
Greengill	...	...	Enlargement of Farm Buildings
Greysouthen	...	...	Bathroom and Watercloset
Oughterside	...	7	...
Plumbland	...	1	Washhouse
Portinscale	2	...	...
Prospect	1	...	...
Rogerscale	...	...	Farm buildings
Seaton	12	...	...
Stainburn	...	...	New Byres
St. John's	...	...	Large Holiday Encampment and Farm Buildings
Thornthwaite	...	1	Watercloset
Workington Rural	2	...	...

Population.

According to the 1901 census the population of this district was 21,690.

The estimated population 22,250 upon which all these statistics is based, is for the whole district.

Birth rate.

There were registered throughout the entire district 670 births (355 males and 315 females) and of these 32 (17 males and 15 females) were illegitimate. The rate for the year 30·11 is slightly higher than the average for the past ten years. The highest rate was recorded in 1901 (31·3 per 1,000 population) and the lowest (27·1) in 1898.

The percentage of illegitimate to total births is 4·7 as compared with 4·3 the rate for 1908.

The birth rate for England and Wales for 1909 was 25·6.

The deaths actually registered in the district were 282 or thirty less than the average for the previous ten years, and the death rate from this uncorrected figure would be 12·67 per 1000 persons living. To get anything like a correct death rate various corrections must be made. Of these 282 registered deaths three were of persons who did not belong to the district. These deaths therefore have to be deducted. On the other hand there are no less than 23 deaths to be added since this number of persons who belonged to the district died in the Cockermouth Workhouse ; Cumberland Infirmary ; Maryport Cottage Hospital ; Cockermouth Nursing Home ; Wigton Workhouse ; Garlands Asylum ; Royal Infirmary, Liverpool ; Mill Road Infirmary, Liverpool ; and Crichton Royal Institution, Dumfries. We then get the approximate number of deaths to be 302 which gives a death rate of 13·57 per 1000. The rate for 1908 was 16·61. The average for the ten years 1899-1908, was 14·1

Death rate
from all causes.

The corrected death rate for England and Wales for 1909 was 14·5 per 1,000.

One hundred and seven is the number of persons who died who had attained the age of sixty-five years and upwards which give a senile death rate of 32·11 per cent. of the total deaths against 26·28 per cent. for 1908.

Senile death
rate.

The following table gives the age at death :—

Year.	At all ages.	Under 1 Year.	1-5.	5-15.	15-25	25-65	Over 65.
1909	302	62	14	11	15	93	107
1908	369	103	32	13	26	97	98
1907	356	74	20	10	12	102	138
1906	309	77	23	9	17	85	98
1905	337	90	39	12	17	76	103
1904	298	88	33	7	11	76	83
1903	314	76	13	11	15	82	117
1902	293	77	21	11	14	76	94
1901	322	84	37	10	10	88	93
1900	290	65	30	8	11	87	89

The above figures show a decrease of forty-one under one year; eighteen under five; two under fifteen; eleven under twenty-five; four under sixty-five; and an increase of nine over sixty-five years as compared with 1908.

During the year eleven inquests were held.

The number of uncertified deaths was nine.

Infantile
Mortality.

There were sixty two deaths among infants under one year of age. This shows a decrease of forty one on last year's totals. The average number of deaths for the ten years 1899-1908 was eighty one.

The infantile mortality for the year is equal to 92 per 1000 births. The average for the ten years 1899-1908 is 127.

The rates for the past six years are as follows :—

1909	1908	1907	1906	1905	1904
92	172	117	120	147	136

Table V shows the causes of death amongst infants.

Notification of
Births Act.

The Council have decided not to adopt this Act.

Cancer rate

Cancer proved fatal in twenty one cases with a rate of '94 per 1000 of the population, as compared with 1'17 per 1000 in the preceding year.

Number of deaths each year from cancer.

1909	1908	1907	1906	1905	1904	1903	1902	1901	1900
21	26	20	17	15	17	19	9	12	8

Tuberculosis
Phthisis.

There were eighteen deaths registered as being due to phthisis. Besides the above, nine deaths were assigned to other forms of tubercular diseases. The following table gives the age at death :—

Year.	At all Ages.	Under 1 Year	1-5	5-15	15-25	25-65	Over 65
1909	18	..	..	1	4	11	2
1908	8	..	..	1	3	4	..
1907	21	..	..	..	2	17	2
1906	16	..	..	3	6	7	..
1905	14	..	1	1	4	8	..
1904	13	..	..	1	2	9	1
1903	11	..	..	1	4	6	..
1902	13	..	..	3	2	6	2
1901	12	..	..	..	1	10	1
1900	9	..	..	1	2	6	..

The death-rate from consumption is equal to 0·8 per 1000 of the population. That for 1908 was 0·36 per 1000. This is one of the principal causes of death, and the most important, since it is preventable. It is therefore worth considering whether anything more can be done than is already done, towards preventing the spread of this disease. Before we can decide upon the most efficient mode of procedure it is necessary that we should have an accurate knowledge of the factors which cause its spread and of their relative importance. These are :—

1. Hereditary predisposition.
2. Infection from sputa, or from other excretal matters.
3. Overcrowding and insanitary conditions.
4. The use of milk from tuberculous cows.
5. The use of flesh of tuberculous cows.

The most recent statistical enquiries strongly indicate that hereditary predisposition is by far the most important factor. The next in order of importance is infection from person to person, through sputa, dissipation of particles by coughing, or of dust from the dried sputum. The part played by flesh and milk may in the aggregate be large, but in comparison with the other factors it is small. Overcrowding, etc., probably never cause phthisis in the absence of the factors 1, 2, 4, 5, but in the presence of any of these, insanitary conditions aid greatly the spread of infection.

To arrest the ravages of the disease, therefore, it is most important that consumptives should not marry. If marriage of consumptives could be prevented the next generation would contain few members with the consumptive tendency, and the death-rate from the disease would drop suddenly and most markedly. As a Sanitary Authority this is beyond your control, and all I can do as your Medical Officer is to make the fact of the importance of this hereditary tendency as widely known as possible, in the hope that it may affect the conduct of some members of the community by dissuading them from marriage if consumptive, or from marrying into a family with a consumptive taint.

The next factor of importance is that of personal infection.

The spread of the disease could be arrested if every consumptive person could be thoroughly isolated, but this

is impossible. A consumptive can, however, be taught how to dispose of his sputum and how to comport himself so as to reduce very greatly the risk of infecting others. This can best be done by residence for a period in a Sanatorium. When thus educated isolation may be dispensed with, but it is very advisable in the advanced stage, where the cough is troublesome, and the amount of sputum raised excessive. Unfortunately, there is no public institution in the county for the reception of advanced cases. (The Guardians for the Cockermouth Union are discussing the question of erecting shelters at the Workhouse, but the situation where they contemplate placing the same, in my opinion, will be a danger to the residents of property near.)

Naturally, personal infection is much more likely to take place in cottages, especially when only provided with casement windows, and if overcrowded. By preventing these some benefits must accrue.

The Zymotic
Death rate,

The zymotic death-rate is calculated from the number of deaths due to the seven principal zymotic diseases. The following table gives them and the deaths recorded from each :—

Smallpox	..	..	..	0
Measles	..	..	..	0
Whooping Cough		..	..	4
Diphtheria and Membranous Croup	}	..	..	4
Scarlet Fever	..	..	..	2
Fevers	{ Typhus	..	..	0
	{ Enteric	..	..	1
	{ Continued	..	..	0
Diarrhoea	..	..	..	2
Total				13

The zymotic death-rate for the year is equal to 0.58 per 1000 of the estimated population as compared with 1.39 per 1000 in 1908. The rate for England and Wales for 1909 was 1.12 per 1000.

Smallpox.

Not a single case was notified during the year. A public enquiry was held in the Carnegie Free Library, Workington, under the presidency of E. P. Manby, Esq., M.D., a Medical Inspector of the Local Government Board, at 11 a.m. on the 5th August, 1909, with reference to an application for sanction to borrow £3,500 for the purchase

of ground and erection of a Smallpox Hospital at Broughton Moor, for the Joint Smallpox Hospital Board. After the enquiry the site was visited, where it was found not to conform to the requirements laid down in the memorandum of the Local Government Board for such institutions. The erection of such a hospital should be pushed forward with as little delay as possible, so as to be ready to combat and prevent an epidemic of this dire scourge, should the infection be imported into this district. The large percentage of unvaccinated children renders this all the more urgent.

Under the Infectious Diseases (Notification) Act, 1889, ^{Notifiable Zymotic Diseases.} one hundred and forty cases of infectious diseases were notified during the year, or thirty six more than in 1908.

The following table gives the number of notifications during each month of 1909.

Monthly Notifications.

1909.	Smallpox	Diphtheria and Membranous Croup	Enteric Fever	Puerperal Fever	Scarlet Fever	Erysipelas	TOTALS
January	..	8	1	..	1	3	13
February	..	1	..	..	9	..	10
March	...	7	..	..	3	1	11
April	..	..	..	..	..	..	..
May	..	1	2	..	2	1	6
June	..	..	..	..	2	..	2
July	..	1	..	..	18	1	20
August	..	5	..	..	4	..	9
September	..	4	..	..	8	2	14
October	..	..	..	..	16	2	18
November	..	7	..	..	11	1	19
December	..	2	1	..	12	3	18
Total	..	36	4	..	86	14	140

From these diseases there were seven deaths, viz :—

Diphtheria, four ; Enteric Fever, one ; and Scarlet Fever, two.

The next table shows how these Infectious Diseases notified were distributed.

DISTRICT.	Diphtheria	Enteric Fever	Puerperal Fever	Scarlet Fever	Erysipelas	TOTALS
(a). KESWICK RURAL.						
Bassenthwaite ..	1	..	..	..	..	1
Borrowdale ..	..	..	..	1	1	2
	1	..	..	1	1	3
(b). COCKERMOUTH RURAL.						
Sunderland ..	..	..	..	2	1	3
Wythop ..	1	..	..	..	..	1
Great Broughton ..	2	..	..	..	1	3
Lorton ..	10	..	..	..	..	10
Tallentire ..	..	..	..	12	..	12
Dovenby ..	..	..	..	8	..	8
Isel ..	1	..	..	4	..	5
Thackthwaite ..	..	..	..	1	..	1
Brigham ..	2	..	..	..	..	2
Goat ..	..	..	..	..	1	1
Greysouthen ..	..	..	..	..	2	2
	16	..	..	27	5	48
(c). WORKINGTON RURAL.						
Seaton ..	4	1	..	39	1	45
Great Clifton ..	2	1	..	..	2	5
Branthwaite ..	..	..	..	1	..	1
Workington Rural ..	1	..	..	..	..	1
Little Clifton ..	..	1	..	..	..	1
Stainburn ..	..	..	..	1	..	1
	7	3	..	41	3	54
(d). MARYPORT RURAL.						
Bothel ..	..	..	..	..	1	1
Flimby ..	3	..	..	9	1	13
Parsonby ..	..	..	..	..	1	1
Dearham ..	..	..	..	4	1	5
Arkleby ..	2	..	..	1	..	3
Plumbland ..	5	..	..	..	..	5
Oughterside ..	2	..	..	3	..	5
Broughton Moor ..	..	1	..	..	..	1
Crosby Villa ..	..	..	..	..	1	1
	12	1	..	17	5	35

The following table shows the number of notifications for the past five years :—

DISEASES.	1909	1908	1907	1906	1905.
Smallpox	..	..	..	..	..
Diphtheria and Membranous Croup	36	18	19	17	7
Enteric Fever ..	4	15	9	5	6
Puerperal Fever	..	1	..	..	1
Scarlet Fever ..	86	58	61	205	155
Erysipelas ..	14	12	9	12	8
Totals ..	140	104	98	239	177

STEPS TAKEN TO PREVENT THE SPREAD OF INFECTIOUS DISEASE.

No one who has not been engaged in public health work can have any idea as to the frequency with which slight attacks of scarlet fever and diphtheria are overlooked by the parents. A child has a sore throat, with perhaps some sickness, and the glands of the neck become swollen. He is kept indoors for a day or two. If he gets obviously worse, a medical practitioner is summoned on the third or fourth day : if the disease happens to be diphtheria of a severe type, the delay is too great for treatment to be of much benefit, and it is in this way that most of the fatal cases arise. If the child improves the parents conclude that it cannot possibly be diphtheria, and in a week or so the child returns to school. Unfortunately the infection may last from a fortnight to six months even after the slightest of attacks.

The same mode of procedure is true (though to perhaps a lesser extent) with scarlet fever ; the rash can easily be missed since it is often transient. On the receipt of a notification, the house is visited as soon as possible, particulars as to the source of infection, milk supply, school attended, drainage, etc. obtained ; and in cases of scarlet fever necessary arrangements made for the removal of the patient to the Isolation Hospital, at Broughton Moor. The medical attendant generally answers the special question on your notification form "if the case is one of scarlet fever, is the patient fit to be removed to the Fever Hospital" ? a step which greatly facilitates their early removal. After removal, or on recovery, should the patient be treated at home, the infected rooms and bedding are fumigated, and sprayed with formalin.

All the other children in an infected house are forbidden to attend school during the requisite quarantine period either after the removal to the hospital of the sufferer, or after their convalescence when treated at home. Such instructions are also given with reference to the attending of public places and Sunday schools.

Where a day school is closed for an infectious disease I also ask the Superintendents to close the Sunday schools, as the children who attend these do not correspond to the day schools, and the children belonging to the closed school would probably continue to attend Sunday school and so transfer the infection to children from other day schools.

Diphtheria.

The increased prevalence of Diphtheria still continues, and during the year thirty-six cases were recorded which is the largest on record. Except for milk-borne epidemics from which we have for the present been free, diphtheria is almost invariably conveyed from person to person. Apart from its transmission from an obvious case of the disease to an attendant or other member of the household the commonest sources of infection are :—

(1.) Slight ordinary attacks of the disease thought to be some other complaint.

(2.) Attacks confined to the nasal passages without producing much constitutional disturbance.

(3.) Carrier Cases, i.e., persons who harbour the diphtheria bacilli in their throats, yet do not appear to be at all affected, or are so slightly affected that their condition would never be suspected were not bacteriological examinations made.

(These "carrier" cases are not limited to diphtheria but it seems probable that they are the chief cause of the spread of scarlet fever and even of typhoid fever.)

(4.) Attacks originating in the course of scarlet fever, but being of a sufficiently indefinite type to be readily overlooked.

In January four cases were notified from Seaton, but nothing of an insanitary nature was noticed on inspecting the premises.

A case was notified on January 12th, 1909, of a boy aged ten years and two months residing at Bassenthwaite. His illness dated back as far as November 11th, 1908. The district nurse was called in on 16th November, who pronounced the case as an ordinary sore throat. No

medical practitioner was summoned. The sufferer was confined to the house for a few days, and was away from school fourteen days. During the Christmas holidays it was noticed that he spoke with a "nasal twang," and when drinking liquids they returned through his nostrils, also that his eyes were affected and he could not read without the aid of a pair of his parents spectacles. On 7th January he was taken to a medical practitioner in Keswick who informed them he was suffering from post-diphtheric paralysis.

A case from Great Clifton in a married woman aged 44 was reported. Here a large number of hens were penned at the gable end of the dwelling.

At Great Broughton a case occurred in a girl aged eight. In August, 1907, another member of the same family suffered from the same disease. The house is a very old one and the spouting at the back of the building was defective.

The last case notified in January was in a girl aged 11 years, residing at Bassenthwaite Lake Station. Was at school the day the illness commenced. The wash-house and boiler is close to a midden privy, the roof of the latter being defective.

A notification was received on 27th February, of a fatal case of membranous croup at Concrete Cottages, Great Clifton. The little sufferer aged two years and six months commenced on 24th February and died on the 26th February. The midden privy was in an insanitary condition.

A mild case occurred in a boy aged seven years and eight months, residing at Great Broughton.

A little delay was caused by the medical practitioner not knowing in whose district this house was situated and his sending the notification to the medical officer of health for the borough. On 16th March, 1909, the notification and bacteriological report were received stating that a boy aged three years and nine months residing at a house in Workington (Rural), was suffering from diphtheria. His illness began on the 7th March, and was medically attended on the 11th March. This is a new house erected about two years ago. A sister, aged 17 years, resides with her grandmother in Workington. She had been suffering from a sore throat which her medical attendant suspected was diphtheria, took a swab which when

examined gave a negative result. On the 6th March she visited her brother and stayed until the 9th March. On her arrival she kissed and nursed her little brother.

Three cases were notified from Armaside, Lorton, on 16th March, in three children aged six years, 4 years six months, and eight years. Illness began on the 11th, 13th, and 14th, respectively. These children attend Lorton school.

At Flimby a fatal case occurred in a boy aged six years. Attended school the afternoon preceding date of attack which terminated the day following. The sanitary conditions were unsatisfactory as four water-closets were not properly flushed owing to the flow of water being retarded by the furred condition of the pipes.

In July a case was notified from Isel Hall in a servant girl aged 18 years. Two days after her return from a month's holiday developed throat symptoms which culminated in diphtheria.

At Flimby a case occurred in a boy aged 11 years. Illness began on August 5th, 1909, but the source of infection could not be traced.

A notification was received on 24th August, conveying the information that a young man aged 19 years, residing at High Armaside, Lorton, was suffering from this disease. His illness began on the 23rd, and he had been in High Lorton the night before. After visiting this case and hearing of several children being away from school with sore throats personally visited these children's homes, and with the parents' consent took a swab of three cases in different houses with the result that bacteriological examination revealed in each Klebs-Loeffler's bacillus. A sister of one of these three cases had been staying at Parton during the holidays, returning home (High Lorton) on the 7th August, but was not well on her arrival, complaining of her ears and throat. The school re-opened on the 10th August, but she did not attend until the 12th (a swab was taken from this girl's throat by her own medical practitioner, and was notified by him as suffering from diphtheria, on September 5th.)

This girl's brother aged eleven years and five months, attended Lorton school, his illness began on 13th August, 1909. Another girl aged eleven years and five months, from Low Lorton who sat near this boy at school began on the 19th August with a sore throat. The third was another girl aged thirteen years and nine months, whose seat at school was in close proximity to the last named

two, began with a cold and sore throat about August 18th, 1909.

In September at Flimby a boy, aged seven years, commenced with this disease whilst attending school.

At Ladywath, Brigham, a youth, aged fourteen years and three months, was certified as suffering from diphtheria. Whilst footracing at Dearham three days before he caught a chill.

In November an outbreak of this disease manifested itself among the children attending Plumbland school. On the 11th two notifications were received stating that a boy, aged nine years and five months, was suffering from diphtheria. Was at school on the 4th November, the day on which his illness began. Also that a child, aged one year and two months, was suffering from the same disease. Illness began on the 9th November, and ended fatally on the 10th November.

On the 18th a boy aged five years and ten months, was certified as suffering from diphtheria. Illness began on the 17th November. Attended school on the 12th November, but had been staying at his grandmother's, at an isolated house, until the 15th November, during which time he was suffering from a cold. This case had a fatal termination on 18th November.

On 31st December two notifications were received that two girls, aged 4 years and six months, and two years and six months, sisters of the last named, had contracted this disease. Their illnesses commenced on the 27th and 28th December. The school was closed, disinfected, and thoroughly cleansed.

On 24th November two notifications were received one a girl, aged five years and four months. Illness began on the 22nd, and the sufferer attended the school the same day. The other a boy, aged twelve years and three months, whose illness commenced on the 19th November. He attended school the same day.

On the 18th November two notifications were received that a young man, aged 19 years, and his sister, aged seven years and six months, residing at Oughterside, were suffering from diphtheria. The former's illness began on the 14th November, and the latter on the 11th November, on which date she attended school.

Four cases were notified during the year. All were Typhoid Fever, in different houses.

A case of enteric fever in a married woman, aged 54 years, at Sunnyside, Seaton, was notified on January 16th. The drainage to this dwelling was found in an insanitary state.

On the 8th May, 1909, a notification was received, stating that a young man, aged 21 years, residing at the Post Office, Bridgefoot, was suffering from typhoid fever. His illness began on 29th April, 1909, although he had not been feeling well for about a month. This case terminated fatally on the 12th May.

On enquiry it was ascertained that bad smells were frequently detected in the kitchen and adjacent room. On making a thorough examination of the drains by smoke testing, the fumes were so strong that the occupants had to leave the room. Although this village is not sewered, this house is provided with an external water closet the soil pipe from which passes through a field and discharges on the foreshore of Lostrigg Beck.

At Denton Square, Great Clifton, a case of enteric fever was, on the 19th May, certified in a married woman, aged 23 years. Illness began on the 6th May. A foul-smelling midden privy stands immediately in front of this cottage door. The entrance inlet for the slop drainage was untrapped.

A young man aged 27 years, residing with his mother at Wyndham Row, was notified on 21st December, as suffering from enteric fever. Illness began on the 10th December; medically attended on 13th Dec. Source of infection untraceable. He is employed at Broughton Moor Brick Works.

Searlet Fever.

Most of the cases have occurred in Seaton (39) and Tallantire, etc. (22.)

The first case was notified on 6th January, 1909, in a boy aged eleven years, residing at Lowca Lane, Seaton. He attended school until they were closed for the Christmas holidays.

On 11th February two notifications were received, one a boy aged 13 years, whose illness began on the 7th Feb., and attended school on the 5th Feb. The other a girl aged six years and nine months who attended school on the 5th Feb., the date of the commencement of her illness.

On the 13th Feb., two more notifications were received, one a boy aged six years and ten months. Illness began on the 10th February, on his return from school. The second a girl aged four years and 5 months. Illness began

on the 13th Feb. This sufferer also attended the school.

On 23rd, 24th and 25th Feb., three more notifications were received. (a.) A girl aged 8 years, illness began 19th Feb. (attended school,) (b.) A girl aged four years and ten months, began on 22nd February (did not attend school.) (c.) A young man aged seventeen years and six months brother of the last named case who was employed at Camerton brickworks. Illness began on 23rd February. Other members of (b) and (c) family were attending school and another case was notified from this family on 9th March in a girl aged fifteen years and nine months.

Another notification was received on 4th March in a boy aged 11 years and seven months. Illness began on 27th February. Attended school the week before. As these cases all appeared to originate from the schools, I personally visited the same, took the absentees' names for the previous five weeks, the time the school had been open after the holidays, when it was noticed that a great percentage had been away for odd days suffering from sore throats. These were inspected and in some instances were very suspicious. Under these circumstances I decided to close the schools for three weeks, during which period the same were thoroughly disinfected by spraying with formalin. Also the Managers were given written instructions to have the whole of the schools thoroughly cleansed and washed out, especially the high beams, window tops, and ledgings where dust and infectious material accumulates.

The last notification of this outbreak was received on March 11th 1909.

With the exception of one case notified in June, the village was free from this disease until September, when four cases manifested themselves, to be followed in October by fourteen notifications, during which period many complaints were made of the effluvium nuisance emanating from the manholes of the new sewer recently laid in Seaton. The origin of this outbreak was attributed to the schools, probably due to the infection remaining dormant among the books. The schools were again closed and disinfected.

Four more cases were reported in November, and a similar number in December.

Tallantire. On 13th July, 1909, a notification was received stating that a boy aged four years 11 months, residing with his parents at Bell Brow, Tallantire, was suffering from scarlet fever. This boy did not attend

school, was removed to hospital on the 14th July. On the 20th a second notification was received of a girl aged seven years 11 months, residing at Main Street, Tallantire. Illness began 18th, removed to hospital on 21st. She was a scholar at Dovenby School. The School was visited when it was found a boy aged 11 years, residing at Bell Brow, Tallantire, was desquamating, and several other scholars absent. Visiting his home it was found that his illness began 25th June, next day his sister aged 13 years seven months fell a victim, and the following day his brother aged seven years. These children were peeling freely on their hands and feet. A mother and two children, from Carlisle, had come to stay with this family in June, and it was after their arrival that the tenant's family fell ill.

The above cases were the origin of the epidemic of 22 cases of this disease in Tallantire, Dovenby, Borrowdale, and Bridekirk.

Owing to the proximity of the school summer holidays it was at once closed.

Stainburn. On the 15th of May 1909, a boy residing at Stainburn, was notified as suffering from Scarlet fever. This boy attended a private school in Workington. Another boy in this school belonging to Workington, whose sister had Scarlet fever brought a ball, with which she had played to the school, and gave it to this boy to play with.

Isel Grange. Four cases in one house, were notified on the 2nd and 3rd November, 1910.

Of the eighty-six cases notified sixty-two or seventy two per cent, of the cases were removed to the Isolation Hospital, and more would have been removed except for the hospital being full.

Two deaths occurred at their homes at Seaton.

Erysipelas.

Fourteen cases of Erysipelas were notified during the past year in different parts of the district. These, as well as all other cases of disease notified, were made the occasion of visits of inspection to ascertain the sanitary conditions of the premises where they occurred, but none was found to be associated with any local insanitary conditions.

Measles.

During the year 1909 Measles has been the most important of the infectious diseases which do not come under the provisions of the "Infectious Disease (Notification) Act." Epidemics involving such large numbers of children raise the question of including measles among the compul-

sory notifiable diseases. The expense incurred by the adoption is very heavy ; and measles is highly infectious in its very early stages before the real nature of the illness can be recognised, so that infection is often spread before notification would be possible. Many authorities have tried compulsory notification of Measles and have discarded it for these reasons. The popular belief that Measles is a trivial disease, and the dangerous fallacy that all children are bound to have the disease sometimes contribute to its spread by causing neglect of such precautions as are possible.

Whooping Cough prevailed amongst the children in certain townships, four cases ending fatally, and of these three were children under five years of age.

Whooping
Cough.

A few cases occurred in different villages.

Chickenpox.

PLACES OVER WHICH THE COUNCIL HAVE SUPERVISION.

There are none in the district.

Common Lodg-
ing Houses.

Thirty is the number in the district. These have been frequently visited, but constant inspection is necessary to keep them in good condition. Acting on my report of 1908 a Special Committee was appointed by your Council to inspect all the Slaughter Houses in the district along with me and the Inspector, in order to see what structural alterations, if any were feasible, might be made in order that the same could be registered in accordance with the new bye-laws sanctioned by the Local Government Board. Such inspection took place on the 10th September, 1909, and a report drafted and later presented to your Council.

Slaughter
Houses.

No unsound meat of any kind has been seized.

There is one Tanyard in the district, at Stainburn. In many of the villages fish frying and chip potatoe businesses are carried on. These usually are in cottage houses without any suitable means of mitigating the effluvium nuisance rendered thereby.

Offensive
Trades.

As respects every retail bake-house the provisions of this part of the Factory and Workshops Act (Edward VII., C. 22., 1901) shall be enforced by the District Council of the district in which the retail bake-house is situate, and not by an Inspector, and for the purpose of this section the Medical Officer of Health of the District Council shall have and may exercise all the powers of entry, inspection, taking

Bakehouses.

legal proceedings, and otherwise of an Inspector. In this section the expression "retail bake-house," means any bake-house or place, not being a factory, the bread, biscuits, or confectionery baked in which are sold, not wholesale but by retail, in some shop or place occupied with the bake-house.

Several cottagers and others follow the practice above-stated in your district, and those known are frequently inspected. Some of these hawk bread etc, in your area.

Factories and
Workshops
Act.

These have been frequently visited, and with two exceptions, both requiring limewashing, comply with the regulations of the Acts. No home-workers live in the district. There are several cottages where washing is done for families.

One steam hand laundry has been opened at Ellengrove where several hands are employed, and many of whom reside on the premises. In my Annual Report for 1908 reference was made on page 22 to the means of escape in case of fire. A committee was appointed and along with me and the Inspector met Messrs. Harris and Sons at the Mills, where plans etc. were produced for our approval. These were considered satisfactory, subject to certain weight tests. They have now been completed and the necessary certificate given.

Cowsheds,
Dairies, etc.

There is a large number of dairy farms in the district, and a quantity of milk is sent daily to the Newcastle district, Workington, Maryport, and other towns. The registered cowsheds have been visited regularly. In the majority the water supply is sufficient and beyond suspicion, but in some instances this is not the case. The condition of the drainage with few exceptions is not good, the byres being "cobble-paved," with irregular surfaces, and in consequence the ground beneath is permeated with sewage. With regard to overcrowding legislation is required to state the floor space necessary for each animal. The importance of having a pure milk supply is absolutely essential. This can only be obtained by having (1) animals free from disease (2) these animals properly housed and groomed and (3) the attendants and milkers to be taught cleanliness with reference to the vessels, animals, and themselves.

In your district the appointment of a Veterinary Surgeon to inspect all the animals would be a step in the right direction to ensure No. 1.

With regard to the second, in my opinion the byres are badly constructed and situated; but until cowsheds require to be periodically licensed, with reasonable freedom for local authorities to refuse the re-licensing of unsatisfactory

premises, there is not much prospect of material improvement.

Medical inspection of the school children in the Urban and Rural districts of Cumberland is made by the County Medical Inspectors, who also note any sanitary defects, and these are reported to the Council. At two schools, Bassenthwaite and Greysouthen, the closet arrangements were so objectionable, that, in the Bassenthwaite case, a deputation from the County Education Department along with the County Medical Officer of Health and myself, met the School Managers on the premises to confer what was the best means available of remedying this nuisance. Nevertheless nothing yet has been done. At Greysouthen an automatic flushing has been made to discharge more frequently.

Public Elementary Schools.

The water supplies, generally, are satisfactory ; but in a few cases it is desirable to effect improvements, but at the present one cannot see how this can be done, as no better source of supply is available.

Special filters and storage vessels might be tried, and if found satisfactory, might be adopted at all schools where the water supply on the premises is of unsatisfactory quality, or where water has to be conveyed from a distance.

In December, a conference of Medical Officers of Health of the Urban and Rural Districts with the Education Committee and County Medical Officer of Health, was held in Carlisle, to consider the Joint Memorandum of the Local Government Board and Board of Education, with reference to school closure and exclusion of scholars to prevent the spread of infectious disease, and to arrange for the co-operation of the Medical Officers of Health and the School Medical Officers. It was agreed "That for the purposes of voluntary closing of schools and for the exclusion of particular scholars, the District Medical Officers of Health be authorised to act immediately, and that the School Medical Officer will subsequently approve their immediate action."

Of the non-notifiable diseases measles have been very prevalent. The schools closed by order of your Council were as under :—

School.	Period of Closure.	Cause.
Seaton ..	Mar. 5th to Mar. 25th ..	Scarlet Fever
Lorton ..	Aug. 30th to Sep. 11th ..	Diphtheria
Braithwaite ..	Sep. 10th to Oct. 16th ..	Measles
Bothel ..	Sep. 29th to Oct. 23rd ..	Chickenpox
Seaton ..	Oct. 7th to Nov. 6th ..	Scarlet Fever
Dovenby ..	Oct. 30th to Dec. 4th ..	Measles
Plumbland ..	Nov. 30th to Dec. 11th ..	Diphtheria

Housing of
Working
Classes.

The lack of decent cottages drives all the best blood out of the villages, and leads to farmers preferring to employ unmarried men or men with small families. The folly of this action must be evident to anyone who has studied the subject, and to those who have we quote the following passage from Whelam on "The Family and Nation," as good horsemen and agricultural labourers deserve the same consideration as grooms and gardeners : " The present habit of advertising for coachmen, gardeners, and gamekeepers 'without encumbrance,' should meet with the universal reprobation it deserves. Such announcements ought not to be allowed to disfigure the columns of otherwise respectable newspapers. These men, usually of good stock, with regular, well paid work, should be a steady source of valuable addition to the population : and pride should be taken in providing for their occupation, cottages with accommodation suitable for a large family. In fact, those responsible for the management of estates might make sure, as a general policy, that the limited number and inadequate size of cottages cannot be made the excuse by satisfactory parents for the limited number of children. Country landowners have many and great responsibilities, which for the most part they have met well. When they come to realise the importance to the nation at large, and even to their own neighbourhood, of a constant supply of healthy children of good stock, they will find there are many ways besides example in which they can exert an influence for good."

The Housing, Town Planning, etc., Act, 1909, has given increased powers to Sanitary Authorities. Under this Act, the closing and demolition of insanitary cottages no longer requires the sanction of local magistrates, and the procedure for the provision of cottages by Sanitary Authorities has been simplified.

There are many cottages existing in the district which one would like to see closed, and such closure will now be a simple matter ; but doubtless the objection that there are no better cottages available will still have a great weight and prevent closure being enforced. In such cases, however, it is obviously the duty of the authority to proceed to provide the cottages required if private enterprise fails to meet the demand.

Sanitation.

In my annual report for 1908, page 24, your attention was drawn to the insanitary state of a farm at Seaton. As nothing was done, the owner was summoned before

Court of Summary Jurisdiction, held at Workington on 28th July, 1909, when the magistrates adjourned the case for two months in order that he might comply with your requirements. He not having done these on 22nd Sept., 1909, the Court granted a closing order of the house, and four guineas expenses.

On the 14th August a personal inspection was made of the whole of the drainage of Rosthwaite, Seatoller, and Stonethwaite, and a report on the drainage of Rosthwaite furnished you, as specially required by the Local Government Board, along with the insanitary conditions found in the other hamlets, many of which require your urgent consideration.

In my previous annual reports, your attention has been drawn to the insanitary conditions existing at Great Clifton, and urge the pushing forward of the sewerage scheme, and the abolition of the midden privies, etc., which are a source of danger to the health of the public, and the scavenging done by means of an ash cart weekly or more frequently as was found necessary.

With regard to the village of Flimby, this district will not improve from a sanitary point of view until a bi-weekly collection of ashes, etc., is made by this Council, and a proper refuse cart provided.

When inspecting Little Clifton, it was observed that four houses known as Gaythorne Cottages required new moveable windows in the back bedrooms. Also the drainage from some property, including pigstye, byre, stable, etc., flows on to the roadside, although the main sewer is not more than four yards distant. Another cottage in this village is without proper drainage, and the slop water is thrown on to the roadside and flows to an open grid in the main sewer.

At Gilcrux it was noticed that the midden privies for the schools are only about nine feet distant from the school wall and about three feet from the cloak room wall. The girls' closets are opposite one of the school windows.

Overcrowding was detected (a) at Plumbland in a two-roomed cottage, the family consisting of man and wife, three sons aged thirteen, nine years five months, and one year six months respectively, and two daughters aged seven years and four years ; (b) at Flimby a cottage

containing a kitchen, bedroom, and attic, was tenanted by a man and his wife, five sons aged respectively nineteen, sixteen, fifteen, ten, and three years and six months, two daughters, eleven years and seven months, and five months, also a male lodger aged twenty-one years.

These nuisances were abated by both families removing into more commodious premises.

During the autumn, the two assistant Medical Officers of Health for the County of Cumberland made a general inspection of your district. In this survey they were personally accompanied over Brigham, Broughton Cross, Great and Little Broughton, Bridgefoot, Broughton Moor, Blindcrake, Great Clifton, Chapel Brow, Redmain, and part of Seaton ; and by the Inspector of Nuisances over the remainder of the district.

Sewerage.

With reference to the sewerage schemes for the villages of Broughton Moor, Broughton, Great Clifton, Rosthwaite, Braithwaite, and Broughton Cross, nothing has yet been done, and the existing nuisances previously reported continue.

The village of Dearham requires a proper system of sewerage, and this should receive the careful consideration of the Council.

Lostrigg Beck, a tributary of the Marron, is seriously polluted by the sewage from Chapel Brow and Bridgefoot. This sewage requires some method for purification prior to entering this stream.

Although the village of Dovenby has been sewered for several years certain properties remain unconnected.

Rivers Pollution Act.

The Rivers Derwent and Ellen are both polluted by drainage from villages and coal washings ; and the former, were it not for its rapid flow and frequent floods, would be very liable to be a source of danger to the health of the public.

Rainfall.

Rain fell on 196 days as compared with 216 in 1908. The rainfall for the year was 46.05 inches, of which 22.42 inches fell in the months of July, October, and December, 8.66 inches falling in October. The average for the ten years 1899-1908 was 40.82 inches, the heaviest record for any single year during this decennium being in 1903, when 52.83 inches were registered, and the least in 1902, when

only 29·20 inches were collected. The heaviest fall was 2·12 inches on October 12th, 1909. The peculiar feature of the rainfall was "A year with a total fall of six inches, or 14 per cent. above the average, but with fewer wet days and more heavy falls."

The public water supply derived from the Crummock Water Supply. Gravitation Main, throughout the area of supply, has been generally ample in quantity during the year and has retained its good record for purity.

The supply to Oughterside, etc., from the Overwater Gravitation scheme has also been sufficient, but occasionally complaints have been received owing to the discolouration of same.

On page 27 of my annual report for 1908, particulars were detailed re the water supplies to Blindcrake and Redmain, Bassenthwaite, Grange-in-Borrowdale, and Applethwaite under Skiddaw, and which still remain "*in statu quo*."

Seven samples of water were forwarded to the County Analyst and examined during the year. Appended are the reports :—

(1) Lily Hall Farm.—"The analysis does not give indications of dangerous pollution with sewage matter."

(2) Lowfield Pump, Embleton.—"The water contains oxidised sewage matter and may become dangerous if the oxydising power of the soil through which it filters is over-taxed. It is highly desirable therefore that a purer source of supply should be obtained."

(3) Wheat Sheaf Inn, Embleton.—The water is pure and free from sewage contamination. The analysis shows no evidence of putrifying organic matter. So long therefore as the water remains in the condition in which it was when this sample was taken, it is safe and suitable for all domestic purposes."

(4) Stag Inn Pump, Crosby, and (5) Messenger's Pump, Crosby.—"The waters are very similar in composition. They contain oxydised sewage matter and are therefore dangerous. Moreover, they are loaded with saline matter beyond the point which is usually regarded as the limit for a wholesome water. Both wells should therefore be closed and a purer water supplied."

(6) Farm Pump, Allerby.—“The water is so highly polluted as to be an extremely dangerous one. The well ought to be filled in or other means taken to prevent the water being used for any household purpose. It is too hard to be suitable for cleansing purposes, and too dangerous for use as a potable water.”

(7) Public Well, Bothel.—“The water is extremely hard, but, being remarkably free from organic matter, no recent pollution can have taken place. If no softer water is available, and if the well is effectively protected against the entrance of slop water and other contamination, it may be used for the supply of a few householders.”

Several houses known as Mountain View, Seatoller, obtain their domestic water from a stream which is polluted by the drainage of ten or twelve houses.

The water supply to the Stanley Terrace area of Embleton, comes down a gutter and is liable to pollution by cattle. In a dry season it entirely fails, and in wet weather is very much discoloured.

About a dozen houses at Bullgill obtain the water used for domestic purposes from a small open well about one foot deep. Animals passing quench their thirst from the same.

Annexed to this report are the usual Statistical Tables.

REGISTER OF RAINFALL IN 1909.

Kept at Broughton Grange, Cockermouth, in the County of Cumberland, by G. S. WILSON.

Lat. 54 40 15. Long. 3 25 15 W.

Nearest Railway Station—Brigham.

Time of observation—9 a.m.

Diameter of Rain Gauge—5 in.

Height of top of Gauge above ground—1 ft. 3 in.

" " " Sea Level—209 ft.

NOTE.—Rain should be measured daily at 9 a.m., and the result entered to the previous day. Full instructions for the measurement of rain and particulars as to the British Rainfall Organization are given in "*Rules for Rainfall Observers*," sent post free on application to Dr. H. R. MILL, 62, Camden Square, London, N.W.

RAINFALL IN 1909.

At Broughton Grange, Cockermouth, in the County of Cumberland.

Rain Gauge } Diameter of Funnel, 5 in.
 Height of top { Above Ground, 1 ft. 3 in.
 of top { Above Sea Level, 209 ft.

Month.	Total Depth.	Greatest fall in 24 hours.	Number of days with .01 or more recorded.
	INCHES.	INCHES.	DATE.
January	3.38	—	—
February	2.35	—	—
March	3.67	—	—
April	2.83	1.09	24th
May	1.73	—	—
June	2.53	—	—
July	6.98	1.40	24th
August	2.61	—	—
September	2.42	—	—
October	8.66	2.12	12th
November	2.11	—	—
December	6.78	1.62	9th
Total	46.05		196

If Gauge has been moved during year state —
 Date. Distance. Direction.

No.

How was height above sea level ascertained?
 Ordnance Survey.

State pattern and maker of Gauge, if known.
 Cassella.

What are the objects nearest to the Gauge?
 Cabbages.

Nearest Parish Church and Railway Station.

NAME.	DISTANCE.	DIRECTION.
Church, Broughton	$\frac{1}{4}$ mile	W
Station, Brigham	$\frac{1}{2}$ mile	SE

RAINFALL AT BROUGHTON GRANGE, 1909.

Date	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	...	...	0.29	...	0.01	...	...	0.07	...	...	0.06	0.32
2	0.03	0.42	0.05	...	...	...	0.08	...	0.06	...	0.05	0.45
3	0.01	0.76	...	0.10	...	...	0.58	0.02	0.16	0.37	...	0.04
4	..	0.65	...	...	...	0.15	0.01	0.11	0.10	0.41	0.03	...
5	0.07	...	...	...	...	0.14	0.55	...	0.55	0.12	0.23	...
6	0.06	...	0.20	...	...	...	0.07	...	0.13	...	...	...
7	0.11	...	0.14	...	...	...	0.03	..	0.01	0.28	...	...
8	...	...	...	...	...	...	...	...	0.03	0.01	0.16	...
9	0.08	0.35	0.07	...	...	...	0.73	...	0.05	0.14	0.23	1.62
10	0.02	0.09	...	...	...	...	0.19	...	...	0.17	...	0.69
11	0.15	...	0.01	0.10	...	0.03	...	...	...	0.22	0.04	0.25
12	0.27	...	...	0.20	0.06	...	0.01	...	...	2.12	0.10	...
13	0.29	...	0.05	0.12	...	...	0.11	0.09	...	0.12	...	...
14	0.49	0.04	...	0.02	0.05	...	0.16	0.01	...	0.53	...	...
15	0.09	...	...	0.29	...	...	0.70	0.01	...	0.05	...	...
16	0.29	...	0.06	0.06	...	...	...	0.01	..	0.17	...	..
17	0.28	..	0.21	0.04	0.05	0.05	0.03	0.12	...	0.31	...	...
18	0.74	...	0.01	...	...	0.01	...	0.04	...	0.15	...	...
19	...	...	...	0.39	...	0.08	...	...	0.04	1.66	...	...
20	...	...	0.07	...	...	0.11	0.47	0.30	...	0.15	...	...
21	0.02	...	...	...	...	0.08	0.06	0.07	...	0.13	...	0.30
22	...	...	...	0.10	0.13	0.83	0.21	0.19	...	0.32	...	0.45
23	...	0.02	0.18	0.03	0.04	0.12	0.43	0.22	0.28	1.04	...	0.15
24	...	...	0.56	1.09	0.10	0.33	1.40	0.19	...	0.03	...	0.09
25	...	...	0.06	0.05	0.23	...	0.62	...	...	...	0.02	0.43
26	...	...	...	0.04	0.22	0.30	...	0.05	0.01	...	0.10	0.01
27	...	0.02	0.05	0.04	0.01	0.14	...	...	0.96	...	0.38	0.62
28	0.31	...	0.77	0.16	0.21	0.16	0.16	0.59	0.04	...	0.53	0.15
29	0.03	...	0.59	...	0.02	...	0.26	0.51	...	...	0.02	...
30	...	...	0.20	...	0.44	..	0.11	0.01	...	0.16	0.16	1.17
31	0.04	...	0.10	...	0.16	...	0.01	...	...	...	...	0.04
on	3.38	2.35	3.67	2.83	1.73	2.53	6.98	2.61	2.42	8.66	2.11	6.78
d'ys	19	8	19	16	14	14	23	18	13	22	14	16

Total for year, 46.05, on 196 days.

NOTES :—A year with a total fall of 6 inches (or 14 per cent) above the average, but with fewer wet days and more heavy falls.

Above Sea Level 209 feet.

INCHES OF RAINFALL AT BROUGHTON GRANGE, COCKERMOUTH, FOR 1909 AND PREVIOUS YEARS.

G. S. Wilson.

	1900		1901		1902		1903		1904		1905		1906		1907		1908		1909		Average 33 years, 1873 to 1904.	
	Rain	On days	Rain	On days	Rain	On days	Rain	On days	Rain	On days	Rain	On days	Rain	On days	Rain	On days	Rain	On days	Rain	On days	Inches	Date
January	4.05	24	2.68	17	3.15	19	4.32	15	3.70	22	1.25	17	5.67	25	1.45	14	4.34	18	3.38	19	...	...
February	4.51	12	1.66	11	0.84	10	5.18	21	3.05	19	2.54	19	2.66	17	2.00	11	2.92	19	2.35	8	...	...
March	0.46	8	1.91	13	2.12	22	6.61	28	2.86	16	3.25	23	2.40	15	4.24	18	3.69	18	3.67	19	...	...
April	2.29	16	3.01	17	1.55	13	1.55	15	3.03	21	3.54	19	1.42	10	2.54	13	1.53	16	2.83	16	1.09	24th
May	2.90	13	1.56	11	2.69	24	2.63	19	2.80	21	2.67	11	4.77	25	3.98	19	2.70	20	1.73	14	...	...
June	3.45	16	2.50	12	1.57	14	1.29	9	1.44	13	1.89	5	1.75	9	5.54	25	2.93	14	2.53	14	...	...
July	1.91	17	0.88	9	3.47	17	4.52	20	2.77	10	2.61	13	2.50	18	1.88	14	3.62	17	6.98	23	1.40	24th
August	8.56	18	4.28	19	2.86	15	5.54	25	4.07	21	3.26	19	5.59	21	4.64	22	4.70	19	2.61	18	...	...
September	3.62	17	2.45	15	1.61	16	5.15	19	2.38	11	3.18	18	1.37	6	0.36	4	4.72	24	2.42	13	...	...
October	5.31	18	5.93	22	3.32	17	8.75	30	2.52	15	2.67	12	5.95	25	7.08	25	1.75	11	8.66	22	2.12	12th
November	4.22	18	4.87	12	2.25	17	3.79	21	3.73	19	3.96	17	4.17	19	4.37	16	3.27	17	2.11	14	...	...
December	7.43	26	5.06	21	3.77	16	3.50	16	4.87	18	3.11	18	3.37	20	5.89	20	3.30	23	6.78	16	1.62	9th
	48.71	203	36.79	179	29.20	200	52.83	238	37.22	206	33.93	191	41.62	210	43.97	201	39.47	216	46.05	196	40.720	

Rural District of Cockermouth.

Annual Report of the Medical Officer of Health for the Year 1909,
on the administration of the Factory and Workshop Act, 1901,
in connection with

FACTORIES, WORKSHOPS, &C.

INSPECTIONS.

Premises.	Number of—	
	Inspections.	Written Notices.
Factories	?	1
Workshops	?	1
Workplaces	?	0
Total	137	2

DEFECTS FOUND.

Particulars.	Number of Defects.	
	Found.	Remedied.
<i>Nuisances under the Public Health Acts.</i>		
Want of Cleanliness	1	1
Unsuitable Sanitary Accommodation.	1	1
Total	2	2

REGISTERED WORKSHOPS.

Workshops on the Register at the end of the year.	Number.
Iron Furnaces ..	1
Brick Works ..	6
Linen and Thread Mills ..	1
Flour Mills ..	12
Saw Mills ..	6
Shoemakers and Cloggers ..	19
Joiners and Carpenters ..	32
Blacksmiths ..	15
Dressmakers ..	9
Tailors ..	7
Breadmakers ..	8
Tanners ..	1
Laundry ..	1
Bicycle Works ..	1
Pit Banks ..	5
Total ..	124

OTHER MATTERS.

Action taken in matters referred by H. M. Inspector
as remediable under the Public Health Acts, but
not under the Factory and Workshop Act (s. 5).

Notified by H. M. Inspector .. 1

JOHN PENNY, D.Sc., M.B.,

6th January, 1910.

Medical Officer of Health.

TABLE A—BIRTHS—(continued.)

DISTRICTS and TOWNSHIPS.	Population	BIRTHS 1909.												Rate per 1000 of population.					Per cent. of illegitimate.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
		1st Quarter				2nd Quarter				3rd Quarter														4th Quarter																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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		Legitimate		Males		Females		Males		Females		Males		Females		Males		Females																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
		Totals		Males		Females		Males		Females		Males		Females		Males		Females																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Whinfell	76	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...</

DEATHS (Table B.)

Total Number of Deaths from all causes, in the entire District of the Cocker mouth Rural District Council,
Male and Female, in the Four Quarters of the Year, and Death-rate per 1,000
Population, as compared with previous years.

DISTRICTS.	Estimated Population to middle of 1909.	1st Quarter			2nd Quarter			3rd Quarter			4th Quarter			Entire Year (1909.)			Rate per 1,000 population										
		Rate per 1,000 population			Rate per 1,000 population			Rate per 1,000 population			Rate per 1,000 population			Rate per 1,000 population			1908	1907	1906	1905	1904	1903					
		Males	Females	Totals	Males	Females	Totals	Males	Females	Totals	Males	Females	Totals	Males	Females	Totals											
(1.) KESWICK, Sub-registration Dis- trict, entirely rural ...	3060	8	6	14	18'3	7	3	10	13'0	2	3	5	6'5	7	3	10	13'0	24	15	39	12'7	14'3	13'4	14'1	14'1	10'8	12'1
(2.) COCKERMOUTH, do., chiefly rural, partially mining ...	5550	12	5	17	12'2	12	7	19	13'6	5	8	13	9'3	7	12	19	13'6	36	32	68	12'2	17'6	13'9	9'9	14'7	13'4	13'9
(3.) WORKINGTON, do., chiefly mining, partially rural ...	5315	11	8	19	14'2	5	8	13	9'7	6	9	15	11'2	8	11	19	14'2	30	36	66	12'4	18'8	17'4	11'3	16'6	11'0	12'9
(4.) MARYPORT, do., chiefly with Urban Townships ...	8325	21	17	38	18'2	21	10	31	14'8	19	12	31	14'8	16	13	29	13'9	77	52	129	15'4	15'3	17'6	16'7	14'5	15'5	14'9
Entire Sanitary District ...	22,250	52	36	88	15'8	45	28	73	13'1	32	32	64	11'5	38	39	77	13'8	167	135	302	13'57	16'61	16'0	13'4	14'9	13'4	13'8

TABLE C.
Death-rate in each Township.

DISTRICTS AND TOWNSHIPS.	Population	Births Regis- tered.	Deaths register- ed in the district.		Death Rate per 1,000 Population.				
			Under 1 year of age.	At all ages.	1909.	1908.	1907.	1906.	1905.
a. KESWICK RURAL ...	3060	67	8	39	12'7	14'3	13'4	14'1	14'1
Bewaldeth and Snittlegarth ...	75	3	...	...	...	26'6	...	13'3	...
Bassenthwaite ...	445	8	1	7	15'7	22'4	15'7	15'7	17'9
Under Skiddaw ...	262	7	1	5	19'0	7'6	3'8	22'9	19'0
Skiddaw ...	1	...	...	...	...	...	...	...	...
St. John's, Castlerigg & Wythburn	766	15	5	10	13'0	11'7	14'6	6'5	13'0
Borrowdale ...	502	7	...	4	7'9	7'9	5'9	19'9	9'9
Above Derwent ...	1000	27	1	13	12'8	16'9	19'0	14'0	15'0
b. COCKERMOUTH RURAL ...	5550	135	16	68	12'2	17'6	13'9	9'9	14'7
Embleton ...	377	11	1	8	21'2	29'3	10'7	5'3	13'4
Wythop ...	100	1	...	...	...	20'0	10'0	...	10'0
Setmurthy ...	180	4	...	3	16'6	11'1	5'5	5'5	11'1
Isel Old Park ...	67	2	...	...	...	...	...	...	...
Sunderland ...	55	3	...	1	18'1	18'1	...	...	54'5
Isel, Blinderake and Redmain ...	280	10	2	5	17'8	28'5	18'1	10'8	10'8
Papcastle and Goat ...	596	10	1	6	10'0	10'0	10'0	10'0	20'1
Bridekirk ...	110	2	...	...	...	18'1	9'0	...	9'0
Tallantire ...	201	3	...	4	19'9	19'9	4'9	...	14'9
Dovenby ...	198	8	2	4	20'2	30'3	5'0	15'1	...
Broughton ...	1404	46	9	17	12'1	17'1	15'5	14'0	17'0
Brigham ...	723	21	1	8	11'0	15'2	22'1	19'3	12'4
Eaglesfield ...	222	...	...	3	13'5	18'0	9'0	...	9'0
Blindboethel ...	89	...	...	...	...	...	33'7	...	11'2
Mosser ...	75	2	...	...	...	13'3	26'6	...	13'3
Whinfell ...	76	1	...	...	...	...	13'1	13'1	...
Loweswater & Mockerkirk ...	272	5	...	3	11'0	22'0	11'0	7'3	21'0
Buttermere ...	87	2	...	...	...	22'9	...	11'4	...
Brackenthwaite ...	116	1	...	...	...	...	34'4	17'2	8'6
Lorton ...	322	3	...	6	18'6	21'7	15'3	3'0	24'5
c. WORKINGTON RURAL ...	5315	176	16	65	12'4	18'8	17'4	11'3	16'6
Seaton ...	1685	58	10	22	13'0	22'6	16'1	10'7	19'1
Camerton ...	278	3	1	4	14'3	10'7	7'1	7'1	21'5
Ribton ...	12	...	...	1	83'3	...	...	...	...
Greysouthen ...	481	11	...	3	6'2	16'6	16'6	18'7	14'5
Little Clifton ...	486	24	2	8	16'4	14'4	22'5	14'4	24'6
Great Clifton ...	1150	42	2	12	10'4	18'2	12'2	8'0	11'3
Stainburn ...	263	10	...	1	3'8	15'2	19'0	3'8	3'8
Workington (Rural) ...	236	4	...	2	8'4	8'4	8'4	8'4	8'4
Winscales ...	102	...	...	2	19'6	9'8	19'6	10'8	9'8
Dean, Deanscales, &c. ...	622	24	1	11	19'2	25'7	33'7	14'4	22'5
d. MARYPORT RURAL ...	3325	292	22	129	15'4	15'3	17'6	16'7	14'5
Gilerux ...	413	16	...	2	4'8	14'5	14'5	7'2	19'3
Plumbland and Parsonby ...	533	20	...	11	20'6	13'1	24'3	18'7	15'0
Bothel and Threapland ...	336	10	...	4	11'9	8'9	8'9	14'8	8'9
Oughterside and Allerby ...	440	16	...	4	9'0	13'6	9'0	22'7	4'5
Crosby, Crosscanonby, & Birkby	931	28	3	16	17'1	15'0	17'0	16'1	9'6
Dearham ...	2157	91	6	35	16'2	16'3	18'6	18'0	12'5
Broughton Moor ...	945	28	3	13	13'7	15'9	21'4	16'0	11'8
Flimby ...	2570	83	10	44	17'1	16'0	17'2	16'1	20'4
Total in Entire District ...	22,250	670	62	302	13'57	16'61	16'0	13'4	14'9

TABLE I.—*Cockermouth Rural District.*

Vital Statistics of whole district during 1909 and previous years.

YEAR.	Popula- tion esti- mated to Middle of each year	BIRTHS.		Total deaths registered in the district.				Total Deaths in Public Institu- tions.	Deaths of Non- residents registered in Public Institu- tions in the Dis- trict.		Deaths of Residents Regis- tered in Pub- lic Insti- tutions beyond the Dis- trict.	Nett Deaths at all ages belonging to the District.	
		Number.	Rate.*	UNDER 1 YEAR AGE		AT ALL AGES.			Number	Rate.*		12	Rate.*
				Number.	Rate.	Number	Rate.*						
1	2	3	4	5	6	7	8	9	10	11			
1899	23334	672	28.7	76	113.0	310	13.2						
1900	22513	617	27.4	69	111.8	290	12.9						
1901	21690	681	31.3	84	123.3	316	14.5						
1902	21690	616	28.3	76	123.3	292	13.4						
1903	21700	692	30.4	76	114.8	300	13.8						
1904	21800	646	29.6	88	136.2	293	13.6						
1905	22112	679	30.7	90	147.2	331	14.9						
1906	22112	641	28.9	77	120.1	297	13.4						
1907	22112	632	28.5	74	117.0	338	15.2	1	1	8		16.61	
1908	22210	603	27.1	103	172.0	362	16.2						
Averages for years 1899-1908	22127	647	29.0	81	127.8	312	14.1						
1909	22250	670	30.11	62	92.5	282	12.67	3	3	23		302	13.57

* Rates in columns 4, 8, and 13, calculated per 1,000 of estimated population.

NOTE.—The deaths to be included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the district or division. The deaths to be included in column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term "Non-residents" is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there; and by the term "Residents" is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

Area of District in acres (exclusive of area covered by water)	158,113'464	Total population at all ages	...	21,690	At Census of 1901
		Number of inhabited houses	...	4,383	
		Average number of persons per house	...	4'9	

Institutions within the District receiving sick and infirm persons from outside the District.	Institutions outside the District receiving sick and infirm persons from the District.	Other Institutions, the deaths in which have been distributed among the several localities in the District.
The Ghyll Retreat (licensed under the Inebriates Acts), Buttermere Isolation Hospital, Broughton Moor	Victoria Cottage Hospital, Maryport Union Workhouse, Cockermouth The Nursing Home, Cockermouth The Cumberland Infirmary, Carlisle The County Asylum, Garlands The Union Workhouse, Wigton	Crichton Royal Institution Dumfries Mill Road Infirmary, Liverpool Royal Infirmary, Liverpool

Is the Union Workhouse within the District? No.

TABLE III.—Cockermouth Rural District.

Cases of Infectious Disease notified during the Year 1909.

NOTIFIABLE DISEASE.	Cases notified in Whole District.						Total Cases notified in each locality.					No. of Cases removed to Hospital from each locality.					Total Cases removed to Hospital.
	Ages.†—Years.						1	2	3	4	1	2	3	4			
At all Ages.	Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.	K.R.D.	C.R.D.	W.E.D.	M.R.D.	K.R.	C.R.	W.R.	M.R.			
Smallpox ...		8	23	5			1	16	7	12							
Cholera ...		2		1	10	1	1	5	3	5							
Diphtheria (including Membranous group) ...	36																
Erysipelas ...	14																
Scarlet fever ...	86	1	20	53	10	2	1	27	41	17		1	24	28	9		
Typhus fever ...																	
Enteric fever ...	4			2	2				3	1							
Relapsing fever ...																	
Continued fever ...																	
Puerperal fever ...																	
Plague ...																	
TOTALS ...	140	1	30	76	18	14	1	3	48	54	35	1	24	28	9		

TABLE IV.—*Cockermouth Rural District.*

Causes of, and Ages at, Death during Year 1909.

CAUSES OF DEATH.			Deaths in whole District at subjoined Ages.						Deaths in Localities (at all ages).				Deaths in Public Institutions.	
			All ages.	Under 1.	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	K.R.	C.R.	W.R.		M.R.
I			2	3	4	5	6	7	8	9	10	11	12	
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	
Measles	...	...	...	...	...	...	...	...	...	...	...	...	...	
Scarlet fever	...	...	2	...	...	...	1	1	...	...	...	2	...	
Whooping-cough	...	...	4	1	2	1	...	...	...	...	3	...	1	
Diphtheria & membranous croup	...	...	4	...	2	2	...	...	...	...	...	1	3	
Croup	...	...	1	1	...	...	...	...	...	...	...	1	...	
Fever {	Typhus	...	...	...	...	...	...	...	...	...	...	...	...	
	Enteric	...	1	...	...	...	1	...	...	...	...	1	...	
	Other continued	...	...	...	...	...	...	...	...	...	...	...	...	
Epidemic Influenza	...	...	1	...	...	1	...	...	...	1	...	...	...	
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	
Plague	...	...	...	...	...	...	...	...	...	...	...	...	...	
Diarrhœa	...	...	2	2	...	...	...	...	...	...	...	...	2	
Enteritis	...	...	7	5	1	...	...	1	...	2	2	...	3	
Gastritis	...	...	6	4	...	1	...	...	1	...	...	2	4	
Puerperal fever	...	...	...	...	...	...	...	...	...	...	...	...	...	
Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	
Other septic diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	
Phthisis	...	...	18	...	...	1	4	11	2	3	4	2	9	
Other tuberculous diseases	...	...	9	2	...	1	...	6	...	2	1	1	5	
Cancer, malignant disease	...	...	21	...	...	...	...	14	7	3	5	4	9	
Bronchitis	...	...	19	3	2	...	...	3	11	3	3	3	10	
Pneumonia	...	...	24	3	3	...	1	9	8	3	5	2	14	1
Pleurisy	...	...	2	...	...	...	...	2	...	...	...	1	1	
Other diseases of Respiratory organs	...	...	2	...	...	...	...	1	1	...	...	2	...	
Alcoholism	}	...	1	...	...	...	...	1	...	...	...	1	...	
Cirrhosis of liver		...	...	...	...	...	...	...	...	...	...	...	...	
Venereal diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	
Premature birth	...	...	14	14	...	...	...	...	...	3	6	4	1	
Diseases and accidents of parturition	...	...	...	...	...	...	...	...	...	...	...	...	...	
Heart diseases	...	...	40	1	...	1	...	20	18	9	9	8	14	
Accidents	...	...	7	...	...	...	2	4	1	1	2	1	3	
Suicides	...	...	2	...	...	...	...	...	2	...	1	...	1	
All other causes	...	...	115	26	4	3	6	20	56	9	27	30	49	2
All causes	...	...	302	62	14	11	15	93	107	39	68	66	129	3

TABLE V.—Cockermouth Rural District.

INFANTILE MORTALITY DURING THE YEAR 1909.

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 One Year.
Common Infectious Diseases.	Small-pox	...																
	Chicken-pox	...																
	Measles	...																
	Scarlet Fever	...																
	Diphtheria : Croup	...																
	Whooping Cough	...							1									1
Diarrhœal Diseases	Diarrhœa, all forms	...											1	1				2
	Enteritis (not Tuberculous)	...					2						1			2		5
	Gastritis, Gastro-intestinal Catarrh	...							1		2					1		4
Wasting Diseases.	Premature Birth	...	11	1	2	14												14
	Congenital Defects	...	1	1	3	5												5
	Injury at Birth	...																
	Want of Breast-milk	...																
	Atrophy, Debility, Marasmus	...	2	1	2	1	6	1	1	1								9
Tuberculous Diseases	Tuberculous Meningitis	...								1								1
	Tuberculous Peritonitis : Tabes Mesenterica	...																
	Other Tuberculous Diseases	...														1		1
		...																
Other Causes.	Erysipelas	...																
	Syphilis	...																
	Rickets	...																
	Meningitis (not Tuberculous)	...																
	Convulsions	...	2		1	3	1	1		1				1				7
	Bronchitis	...			1	1			1		1							3
	Laryngitis	...																
	Pneumonia	...							1	1	1							3
	Suffocation, overlying	...																
	Other Causes	...	1		2	3				1						1	2	7
All Causes	Certified	...	14	3	11	1	29	4	2	5	4	4		2	2	5	1	58
	Uncertified	...	3				3										1	4

Births in the year—legitimate 538
Do. illegitimate 32

Deaths in the year—legitimate infants 61
Do. illegitimate 1

Deaths from all Causes at all ages ... 302

Population, estimated to middle of 1909 ... 22250

TABLE VI.

Summary of work done through the Inspector of Nuisances in the Rural Sanitary District of Cockerthorpe, during the year ending 31st December, 1909.

RURAL DISTRICTS.		Privies & Ashpits built & repaired	Privies and Ashpits cleansed	Middens removed	Drains or Channels made or repaired	Drains or Channels cleansed	Other Nuisances abated	Plans for New Houses 1909	Houses enlarged	Houses sewered	No. of Houses Ventilation improved	Structural Defects of houses repaired	Houses disinfected	Overcrowding abated	New W.C.s or Privies converted into W.C.s.	Schools disinfected	Traps put in	No. of houses water supply improved	Pigs removed	Poultry removed	TOTALS
Above Derwent	...	...	1	...	...	...	1	2	...	...	...	1	...	...	1	...	...	...	...	...	6
Allerby & Oughterside	...	1	21	...	...	...	1	1	1	...	...	...	...	1	...	...	...	6	...	...	32
Braithwaite	...	...	6	...	...	2	2	1	2	...	...	...	...	...	2	1	...	...	1	...	17
Borrowdale	...	1	...	...	2	1	...	1	...	...	...	...	1	...	...	...	...	...	...	...	6
Blindbothel & Whinfell	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Blackenthwaite	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Brigham	...	1	47	3	1	6	1	...	...	...	1	1	2	...	1	...	...	...	...	...	64
Buttermere	...	2	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	4
Bassenthwaite	...	...	...	...	...	...	...	...	...	...	5	4	...	...	...	1	...	...	...	...	10
Bewaldeth and Sunderland	...	...	2	...	...	1	...	...	...	...	...	...	2	...	...	...	...	1	...	...	6
Blindcrake, Isel, and Redmain	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	4	...	...	6
Bothel and Threapland	...	1	4	1	...	1	...	...	2	...	...	...	...	...	...	1	...	...	...	...	10
Bridekirk & Dovenby	...	1	1	...	...	1	...	...	...	...	...	...	7	...	...	2	...	1	...	...	13
Broughton	...	...	33	1	...	2	...	1	...	...	3	2	...	...	...	...	1	...	...	...	43
Broughton Moor	...	...	44	...	...	...	1	1	...	...	1	...	...	...	...	...	...	2	...	...	49
Camerton and Ribton	...	...	3	...	...	1	1	...	...	...	1	...	...	...	...	...	1	...	...	...	7
Clifton, Great	...	4	256	1	1	3	...	...	...	...	2	...	6	...	...	1	...	...	...	...	274
Clifton, Little	...	...	24	1	...	1	2	...	...	...	...	...	1	...	...	...	...	3	...	...	32
Crosscanonby, Crosby Villa	...	2	83	1	3	4	3	...	...	...	...	...	...	...	...	...	...	2	...	...	98
Dearham and Craika	...	1	13	1	5	1	3	5	2	...	2	2	...	...	...	...	3	1	...	...	39
Eaglesfield	...	...	...	...	1	...	1	...	...	...	1	1	...	...	...	...	1	...	...	...	5
Embleton, Wythop, & Setmurthy...	...	1	1	...	1	1	1	2	...	...	6	1	...	...	...	...	...	1	...	...	16
Flimby	...	27	54	...	4	7	4	...	...	...	1	9	...	...	2	...	3	4	2	...	117
Greysouthen	...	...	3	...	...	...	2	...	...	...	2	...	1	...	1	...	2	2	...	...	13
Gilcrux, Greengill, & Bullgill	...	...	10	...	2	1	2	1	...	...	7	...	...	...	...	...	3	...	...	...	26
Isel Old Park	...	...	...	...	...	...	...	...	...	...	...	...	7	...	...	...	1	2	1	...	16
Lorton	...	1	2	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	2
Loweswater, Mosser, & Mockerkin	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...
Millbeck & Applethwaite	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Newlands	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pardshaw, Dean & Deanscales	...	1	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
Papcastle and Goat	...	2	1	1	1	1	1	...	...	...	...	...	...	...	...	...	2	...	1	...	10
Plumbland and Warthole	...	2	...	...	1	...	...	2	...	...	...	2	1	...	...	1	3	...	...	...	12
Parsonby and Arkleby	...	...	1	...	1	1	...	...	...	...	...	3	...	...	...	...	...	1	...	...	7
Seaton	...	...	5	...	2	2	12	...	...	...	4	38	...	55	2	...	...	4	4	...	128
Stainburn and Winscales	...	5	3	...	...	1	...	1	...	2	...	1	...	...	...	2	4	...	...	...	19
St. John's, Legburthwaite & Wythburn	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Thornthwaite	...	4	1	...	...	...	1	...	...	...	...	...	1	...	...	...	2	...	...	...	8
Thackthwaite	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Tallantire	...	...	...	1	...	...	1	...	...	...	4	7	...	...	...	...	...	...	...	...	13
Ullock and Branthwaite	...	1	1	3	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	7
Under Skiddaw	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Workington Rural	...	...	12	...	...	...	2	...	...	2	...	1	...	...	...	...	...	...	...	...	17
TOTALS	...	58	632	15	26	38	29	28	13	2	7	42	102	2	63	10	26	28	13	4	1138

TABLE VI—(continued).

RURAL DISTRICTS.		Nuisances reported in 1909 and not yet abated										Inspector of Nuisances.				
		Urinals built	Drains tested	Scarlet Fever cases removed to Hospital	Samples of water analysed	Samples of water condemned	Cowsheds registered in 1909	Structural defects of Cowsheds remedied	Number of Cowsheds on register	No. of visits to Cowsheds in 1909	No. of Slaughterhouses in district	No. of notices to cleanse workshops	Complaints of Nuisances received	Beds destroyed from Typhoid	Totals	
Above Derwent	...	...	...	...	...	...	...	...	2	...	...	...	...	...	2	708
Allerby and Oughterside	...	...	...	...	1	1	...	4	4	...	2	...	...	...	12	10
Braithwaite	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	217
Borrowdale	...	...	...	1	...	...	1	...	...	...	...	...	1	...	3	935
Blindbothel and Whinfell	...	...	...	...	...	...	...	...	2	...	...	...	...	...	2	124
Brackenthwaite	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	137
Brigham	...	...	...	...	...	...	...	2	7	...	1	...	...	...	10	...
Buttermere	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...
Bassenthwaite	...	1	...	...	...	...	...	...	...	...	1	...	1	...	3	...
Bewaldeth and Sunderland	...	...	...	2	...	...	...	...	...	...	...	...	1	...	3	...
Blindcrake, Isel, and Redmain	...	1	...	4	1	1	...	...	...	...	...	...	...	...	7	...
Bothel and Threapland	...	2	...	...	1	...	...	...	...	...	1	...	2	...	6	...
Bridekirk and Dovenby	...	4	...	6	...	...	...	...	...	...	2	...	...	...	12	...
Broughton	...	...	...	...	...	...	...	...	1	...	4	...	1	...	6	...
Broughton Moor	...	...	...	...	...	...	2	...	3	...	...	...	...	...	5	...
Camerton and Ribton	...	...	...	...	...	...	...	...	2	...	...	...	...	...	2	...
Clifton, Great	...	2	...	...	...	...	...	...	4	...	3	...	2	...	11	...
Clifton, Little	...	4	...	...	...	...	...	2	2	...	2	...	1	...	11	...
Crosscanonby, Crosby Villa	...	3	...	...	2	2	4	...	8	...	1	...	3	...	23	...
Dearham and Craika	...	3	...	3	...	...	...	...	5	...	2	...	...	...	13	...
Eaglesfield	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...
Embleton, Wythop & Setmurthy	...	...	...	...	2	1	...	...	...	...	1	...	2	...	6	...
Flimby	...	4	...	5	...	...	...	...	6	...	1	...	3	...	19	...
Greysouthen	...	...	...	...	...	...	...	...	2	...	3	...	1	...	6	...
Gilcrux, Greengill, and Bullgill	...	2	3	...	...	...	1	...	2	...	...	...	...	...	8	...
Isel Old Park	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Lorton	...	1	...	...	...	...	...	...	...	...	...	...	...	...	2	...
Loweswater, Mosser, & Mockerkin	...	1	...	...	...	...	...	...	...	...	...	...	1	...	2	...
Millbeck and Applethwaite	...	...	...	...	...	...	...	...	1	...	...	...	1	...	2	...
Newlands	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pardshaw, Dean, and Deanscales	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Papcastle and Goat	...	3	1	...	...	...	...	...	2	...	1	...	1	...	8	...
Plumbland and Warthole	...	...	...	...	...	...	...	...	1	...	...	1	1	...	3	...
Parsonby and Arkleby	...	...	...	1	1	1	...	...	1	...	...	...	...	...	4	...
Seaton	...	5	1	27	...	...	2	...	7	...	2	...	1	1	46	...
Stainburn and Winscales	...	2	...	1	1	...	1	...	6	...	2	...	...	...	13	...
St. John's, Legburthwaite and Wythburn	...	...	...	...	...	...	...	...	2	...	...	...	...	1	3	...
Thornthwaite	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Thackthwaite	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tallantire	...	...	...	12	1	...	1	2	1	...	1	...	...	...	18	...
Ullock and Branthwaite	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	...
Under Skiddaw	...	...	...	...	...	...	...	1	1	...	...	...	...	...	2	...
Workington Rural	...	...	...	...	...	...	...	1	3	...	...	...	...	...	4	...
TOTALS	...	39	3	2	62	10	6	12	12	76	245	32	1	27	1,528	

John Wm. Jackson,
Inspector of Nuisances.

Number of Nuisances abated by Statutory Notices
 Peremptory " 708
 Verbal Notices 217
 935

Factories and Workshops on the Register
 Number of Inspections of Workshops
 124
 137

