[Report 1896] / Medical Officer of Health, Brighouse Borough.

FOURTH

Annual Report

ON THE

PUBLIC HEALTH

OF THE

Borough of Brighouse.

For the Year 1896.

MEREDITH YOUNG,

M.B., Mast. Surg. (Univ. Edin.), D.P.H. (Univ. Vict.),

Medical Officer of Health to the Borough ;

Medical Officer of Health to the Halifax Rural District Council ;

Fellow of the Incorporated Society of Medical Officers of Health,

etc.

Brighouse:

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1897.

BOROUGH OF BRIGHOUSE.

SANITARY COMMITTEE, 1895-6.

Mayor:

ALDERMAN RICHARD KERSHAW, J.P.

Chairman:

ALDERMAN WILLIAM PILLING.

Vice-Chairman:

COUNCILLOR JOHN FAIRBURN.

Members of Committee:

ALDERMAN ROBINSON,
" SUGDEN,
COUNCILLOR ARMITAGE,
" BUTTERWORTH,
" CARTER,
COUNCILLOR DYSON,
" FRANCE,
" GANSON,
" G. HEALEY,
" HELLIWELL.

STATISTICAL & SANITARY MEMORANDA, 1896.

Population.—Population of Borough, 1881 ... 16,909
" " 1891 ... 20,666
Estimated to middle of 1896 ... 22,960

Inhabited Houses, 1891 ... 4,532

Acreage of the Borough, 2,224 (Brighouse 403)
(Rastrick 1371)
(Hove Edge 450)

Average Density of Population—9·3 persons per acre.

Mean Altitude.—Brighouse, 276 feet above sea level.
Rastrick, 410 "
Hove Edge, 375 "

Birth Rate per 1000 of Population ... 23·8

Death Rates—General ... 15·67
Zymotic ... 1·5
Respiratory ... 3·5
Phthisis ... 1·74
Infant Mortality 141 per 1000 Births.

INTRODUCTION.

MUNICIPAL OFFICES,

BRIGHOUSE,

FEBRUARY, 1897.

To the Chairman and Members of the Sanitary Committee.

GENTLEMEN,

I have the honour and pleasure of laying before you, for your consideration, my Fourth Annual Report on the health of the district in your charge.

Your Committee is to be congratulated on having put its hand to many municipal works of the highest importance during the past year, foremost amongst these being the provision of a Hospital for the isolation of cases of Infectious Disease and the systems of Main Sewerage and Sewage Disposal.

Rightly or wrongly, I take a little credit to myself in this connection, inasmuch as I have never neglected any opportunity during the past five years, of reminding your Committee that these two things were essential for the good of the community. I hope before very long to be able to point out some definite good which has actually resulted to the town and its inhabitants from the adoption of these measures.

There are still before you however, "other worlds to conquer," and in the text of this Report I have endeavoured to point out some of these.

In the minds of the majority of people the connotation of the term "Public Health," is confused and limited. Nuisances, infectious illnesses, drainage, and refuse disposal are taken as covering its whole extent. But these form only its objective side: its ethical side is of far greater importance, and will be more lasting in its effects, inasmuch as it aims at the production of a cleaner, purer, and richer life. Public Health is in reality a specialised branch of medicine now in its renascence, and with every prospect of a vigorous and rapid growth. It has been truly said that it is "in its essence the application of Scientific Medicine to present Social Circumstances."

Local Sanitary Authorities are organisations for the abolition or cure of social as well as individual evils, and for the establishment and maintenance of conditions favourable to social evolution.

The environment must be continually improved or the standard of civilised living can never be raised.

Education of the people is one of the great levers of Sanitary Science and one to which your Committee should give especial attention.

It is impossible to conceal the fact that in a large number of cases it is the individual and not the environment which is to blame for the evils which exist, and it is with a view to some amelioration of this that in several parts of my Report I have criticised the habits of the people—not only the lower classes, but the people as a whole. The bad habits of the lower classes are more easy to detect than those of the classes socially above them, but I doubt if they are any worse from a hygienic point of view.

This work of popular hygienic education is an uphill one, but like most uphill work, its results once attained are practically permanent.

I cannot say that the small part I have, in the exercise of my duties, taken in it has been discouraging: once people have the right and wrong ways in sanitary matters put before them, they are not slow in choosing.

One of the largest and most serious items in our death returns is the mortality amongst infants, or children in the first year of life.

I have commented upon this in the Report, and, though it does not properly belong to the year under review, I must congratulate your Committee upon having taken an important step in the matter by authorising me to draw up plainly worded instructions to parents on the management of infants during the early and delicate years of life. This will combat successfully, I feel sure, one of the principal causes of the terrible loss of childlife, and will result in a gain to the community.

From the Report you will see that a great deal of careful sanitary inspection has been carried out, and a large number of defects, more or less grave, have been remedied.

The district is in reality, however, in need of a thorough house-to-house inspection, for it is by no means the right way of doing things to wait until disease and death have resulted before insanitary conditions are discovered and remedied.

But before this can be done, I must certainly have an additional Sanitary Inspector, for the duties of your present Inspector are already sufficiently onerous. Had I extra help in the Sanitary Department, too much labour and expense might be saved to owners of property, for sanitary defects might be discovered in their initial stages in connection with new property, or in connection with old property undergoing alteration, at which stages they would admit of easy remedy.

The Monthly Reports both of myself and of the Inspector of Nuisances have been, as a rule, in detail, so that many matters do not require a very full mention in this Annual Report.

I find that a Statistical Report, such as this, is in large part seldom perused if the main items are put in tabular form. I have, therefore, endeavoured to lessen the number of tables and increase the text of the Report to some extent.

My thanks are due to many brother Medical Officers of Health for supplying me with statistical data, which you will find in the Report.

In conclusion, I must thank your Committee for the cordial support given to me during the year in the discharge of my various duties.

I have the honour to be, Gentlemen,

Your obedient Servant,

MEREDITH YOUNG.

Annual Report of Medical Officer of Health.

STATISTICAL REPORT.

Population.—I have estimated the population to the middle of the year to be 22,960, and upon this figure I have based all my calculations. It is probably too high an estimate as the number of inhabited houses, judging from the Rate Books, is about 4,500, (certainly no more), and taking an average of 5 persons per house this gives us a population of 22,500.

I have, however, followed out the method prescribed by the Registrar General. The population is estimated to the *middle* of the year, because this gives us the average population for the year, and calculations can be made on this as a basis for all parts of the year without any appreciable error.

I should have been glad to give the birth and death-rates etc., in each Ward, but I am afraid the estimates of population in the Wards are not sufficiently trustworthy. After the next Census proper information will no doubt be forthcoming on this important point.

Births.—There have been 547 births registered during the year, namely 274 of males, and 273 of females, or at the rate of 23·8 per thousand of the estimated population.

Of these 547 births 17 have been illegitimate. In 1895 there were 573 births registered, and only 10 were illegitimate, and in 1894, of 571 births, only 11 were illegitimate. Illegitimacy therefore, seems on the increase. It is by no means an indication that the morality of the district is declining—possibly the reverse, for it is a well-known fact that in France, illegitimate births are not so numerous as in England, and few people would say that England was less moral than France.

The birth rate is lower than in previous years, for in 1895 it was 25·38, in 1894 25·9, and 27·4 in 1893.

Compared with the birth rate of England and Wales for 1896,—29·7—it is low, and compared with the rates in other West Riding towns, it is also below the average. (See Table II in Appendix).

Deaths.—The deaths registered in the Borough have numbered 346, but 14 others have occurred in outside districts (Halifax Union and Huddersfield Infirmary), which therefore brings the correct total up to 360. Of these deaths 195 have been those of males, and 165 those of females, equal to a rate per thousand per annum of 15·67.

The death rate in 1895 was 15·46, in 1894 14·16, and 17·2 in 1893, so that the present death rate compares not unfavourably with those of preceding years. Compared with that of England and Wales for 1896 —17·1—it is favourable, and compared with those of neighbouring towns it stands very well. (Table II in Appendix).

The **Uncertified Deaths** have numbered 28, and in 12 of these **Inquests** have been held.

Deaths at Various Age-Periods.—In Table A in the Appendix, as also in other Tables, you will find a statement of the number of deaths at different periods of life.

There has been, if anything, an increase in the **Infantile Deaths,** or deaths of children under one year of age, which have been at the rate of 141 per thousand of the registered births, as compared with 132 per thousand for the previous year (1895), 113 per thousand in 1894, and 178 per thousand in 1893, the year of Incorporation.

Compared with some of the larger neighbouring towns, it may seem to be not unfavourable (see Table II. in Appendix), but when one considers that it indicates that *almost one-seventh* of the children born, were they to continue dying at the same rate, would not survive the first year of life, the circumstance at once assumes a grave and serious aspect.

Most sanitarians are agreed as to the causes, which are numerous, and upon which I have descanted in previous Annual Reports.

The cause which is principally at work in our midst being ignorance of Infant Feeding and Infant Management, your Committee have (January, 1897) determined to try the effect of educating the public on this matter.

Many, even educated, people are sadly ignorant of infant treatment, and medical men themselves are very often puzzled. It is no disgrace, therefore, to be ignorant of such matters—the only disgrace is to remain ignorant when information lies at hand free of charge. By supplying this information I feel confident that some considerable good will result.

But I also feel confident that, if strict inquiries were to be made into each case of infant death, or if every uncertified infant death were made the subject of an inquest, they would lessen in number. I intend during the present year to collect some information in connection with this matter, in order to try and establish what are now more or less theories as to the cause of high infant mortality.

The deaths at other age-periods present no features worthy of special remark.

CLASSIFICATION OF CAUSES OF DEATH.

The causes of death are systematically classified in the Report, the nomenclature adopted being that recommended by the Registrar-General.

The causes of death are in this way first of all divided into :—

I. Defined and Specified Causes.

II. Ill-Defined and Not Specified Causes.

The former group is divided into seven classes, and each of these is variously sub-divided into different orders. In all there are usually distinguished 116 separate causes of death.

A word or two in explanation of the seven classes above mentioned may be useful.

Class I. Specific Febrile or Zymotic Diseases.—Includes all epidemic, endemic, contagious or infectious diseases.

Class II. Parasitic Diseases.—Includes all those diseases caused by animal or vegetable parasites.

Class III. Dietetic Diseases.—This includes all those diseases caused by the want of, or the bad quality of, food as well as by intemperance.

Class IV. Constitutional Diseases.—This includes diseases associated with, in many cases, a bad habit of body, as well as many hereditary diseases.

Class V. Developmental Diseases.—This class is purely for those diseases, the chief manifestation of which is some congenital defect, and includes deaths from premature birth, and old age or senile decay.

Class VI. Local Diseases.—This comprehensive class takes in deaths from diseases of the nervous, circulatory, respiratory, digestive, urinary, and other systems.

Class VII. Violence.—Includes deaths from accident, homicide, suicide, &c.

The group **Ill-Defined Causes** includes many things which, to the lay mind, would appear to be distinct diseases, *e.g.*, dropsy, abscess, and tumour. But to the medical mind these seemingly definite terms are capable of many different interpretations : tumour may be anyone of a dozen different things ; dropsy may be caused by disease of the heart, kidneys, or liver, &c., and abscess may be similarly due to a large variety of causes.

The classification of *causes of deaths* is different entirely from the classification of *diseases* : it has to do with the primary cause of death, and in many cases does not recognise the ultimate cause. For example a death registered as being due to inflammation of the lungs, following it may be, after a couple of weeks, an attack of measles, is put down as being due to measles, and nothing is said about the lung mischief. In other words the classification here adopted is etiological, or based upon the primary cause of death, and not upon the consequences of this primary cause. Obviously it is the best method of classification from a sanitary or preventive medicine point of view, for such statistics form the basis of sanitary action, and in many cases of sanitary legislation. In the above case the Sanitarian has his attention directed to *measles*, and therefore aims at preventing the occurrence and spread of that disease.

By doing what is possible towards the prevention of measles, he is in the first place dealing with a disease which is amenable to preventive treatment, and in the second place he is indirectly preventing the occurrence of deaths from that inflammation of the lungs which follows in so many cases an attack of measles.

ANNUAL SUMMARY OF CAUSES OF DEATH, 1896.

I.—Specific Febrile, or Zymotic Diseases.	
1. Miasmatic Diseases	30
2. Diarrhœal ,, ...	7
5. Venereal ,, ...	1
6. Septic ,, ...	2
II.—Parasitic Diseases	1
III.—Dietic Diseases	2
IV.—Constitutional Diseases	66
V.—Developmental Diseases	26
VI.—Local Diseases—	
1. Diseases of Nervous System	44
3. Diseases of Circulatory System	26
4. Diseases of Respiratory System	81
5. Diseases of Digestive System	27
8. Diseases of Urinary System	4
9. Diseases of Reproductive System	2
10. Diseases of Bones and Joints	1
11. Diseases of Integumentary System	3
VII.—Violence—	
1. Accident or Negligence	9
3. Suicide	4
VIII.—Ill-Defined and not Specified Causes	24
Total	360

MORTALITY FROM VARIOUS CAUSES.

1. **The Seven Principal Zymotic Diseases.**—These include Small-pox, Measles, Whooping Cough, Diarrhœa, Scarlet Fever, Diphtheria and Membranous Croup, and Fever (Typhoid, Continued and Relapsing).

In all 35 deaths have resulted from these diseases during the year—measles with 16 deaths, whooping cough with 6 deaths, and diarrhœa with 7 deaths heading the list.

The zymotic death-rate, which is a favourite though unreliable standard by which the health of a district is often judged, has been 1·5 per thousand of the population.

It compares very favourably with the same rate in other West Riding towns (see Table II in Appendix).

2. **Respiratory Diseases** (Excluding Phthisis).—These include Bronchitis, Pneumonia, Pleurisy, Congestion of the Lungs, &c., and have been responsible for 81 deaths, equal to a rate of 3·5 per thousand of the population. This also compares fairly well with other towns.

Some remarks on the connection between occupation and respiratory disease will be found below.

3. **Phthisis** (Consumption of the Lungs).—This disease has caused 40 deaths during the year, equal to a rate of 1·74 per thousand of the population. A glance at Table II in Appendix will show that this is in excess of the average rate in other towns of the West Riding.

The most serious thing, however, is that a very large number of deaths have taken place at an early age—4 being at ages under 20 years, 13 between the ages of 20 and 25, and so on as the Table belows shows.

TABLE SHOWING AGES OF DEATH FROM PHTHISIS.

15–20	20–25	25–30	30–35	35–40
4	13	4	5	4
40–45	45–50	50–55	55–60	60 & up.
1	2	4	–	3

Nealy one half of the total deaths have occurred then at ages under 25 years.

The next Table shows that of those who died at early ages most were factory operatives; those engaged in outdoor work died at a later age.

I do not, by any means, ascribe the death of the former to their occupation—rather do I think that it was the early onset of delicate health which caused them to choose factory work in preference to out-door work.

TABLE SHOWING OCCUPATIONS AND AGES AT DEATH OF PERSONS (MALE OR FEMALE) WHO HAVE DIED OF PHTHISIS.

STONE.

	Mason.	Delver or Miner.	Dresser.
Ages at Death.	52 (1 death)	26 50 31 54 (4 deaths)	29 41 71 (3 deaths)

FACTORY OPERATIVES.

	Silk.	Cotton.	Wool.
Ages at Death.	20 21 22 23 24 30 30 36 (8 deaths)	17 20 22 51 61 (5 deaths)	20 23 34 46 (4 deaths)

The figures of course are far too small to draw any conclusions from, but they may form the foundation of future statistical inquiries.

TABLE SHOWING THE NUMBER OF DEATHS, AT ALL AGES IN 1896, FROM CERTAIN GROUPS OF DISEASES AND PROPORTIONS TO 1000 OF POPULATION, AND TO 1000 DEATHS FROM ALL CAUSES; ALSO THE NUMBER OF DEATHS OF INFANTS UNDER ONE YEAR OF AGE FROM OTHER GROUPS OF DISEASES, AND PROPORTIONS TO 1000 BIRTHS AND TO 1000 DEATHS FROM ALL CAUSES UNDER ONE YEAR.

DIVISION I.—ALL AGES.

	Total Deaths.	Deaths per 1000 of Population, at all ages.	Deaths per 1000 of Total Deaths at all ages.
I.—Seven Principal Zymotic Diseases	35	1·5	97
II.—Pulmonary Diseases	81	3·5	225
III.—Principal Tubercular Diseases	43	1·9	119

DIVISION II.—INFANTS UNDER ONE YEAR.

	Total Deaths.	Deaths per 1000 of Births.	Deaths per 1000 of Total Deaths under One Year.
IV.—Wasting Diseases	13	23·6	168
V.—Convulsive Diseases	12	21.8	155

NOTICE.

I.—Includes Smallpox, Measles, Scarlet Fever, Diphtheria, Whooping Cough, Typhus, Enteric (or Typhoid), and Simple Continued Fevers, and Diarrhœa.

II.—Includes all diseases of the Respiratory System, except Phthisis.

III.—Includes Phthisis, Scrofula, Tuberculosis, Rickets, and Tabes Mesenterica.

IV.—Includes Marasmus, Atrophy, Debility, Want of Breast Milk, and Premature Birth.

V.—Includes Hydrocephalus, Meningitis, Convulsions, and Teething.

Mortality in Relation to Season.—In the appended Table you have presented to you the death-rates from various causes during the different months of the year.

1. The general death rate was highest in December, when it was 22·5—considerably above the average. It was lowest in July (10·0), though the rate in March (10·8), competes closely for second place.

2. The Zymotic death rate, which includes deaths from "the seven principal zymotic diseases" (Smallpox, Measles, Diphtheria, Whooping Cough, Scarlet Fever, 'Fever' and Diarrhœa), was highest in April, being high also in March, May and June, owing, I imagine, to the prevalence of measles. It again rose in October, November and December, for the same reason.

3. Chest diseases claimed most victims during November and December, when the rates were 6·0 and 7·7 respectively—very much above the average, 2·0 being our usual respiratory death-rate.

4. The deaths from Phthisis or Consumption of the Lungs, do not vary much, month by month, as a glance at the Table will reveal. The highest rates are to be found in October and August, and the lowest in January and March; this latter is somewhat of an unusual occurrence—the dry cold East winds of that time of the year generally carrying off many phthisical persons.

DEATHS FROM VARIOUS CAUSES DURING THE DIFFERENT MONTHS OF THE YEAR.

Month.	General Death Rate from All Causes.	From Seven Principal Zymotic Diseases.	From Chest Diseases.	From Phthisis (Pulmonary Consumption	Deaths of Infants (under one Year.)
Jan.	14·8	1·0	2·5	0·5	161
Feb.	15·76	–	3·28	1·0	127
March	10·8	2·0	3·6	0·5	116
April	16·9	3·0	2·0	2·5	83
May	14·8	2·6	3·6	2·0	44
June	17·1	2·0	2·0	2·6	120
July	10·0	1·0	1·6	1·5	–
Aug.	13·5	0·5	–	3·0	210
Sept.	14·0	–	3·2	1·0	200
Oct.	12·8	2·0	1·5	3·6	111
Nov.	18·0	2·1	6·0	1·0	60
Dec.	22·5	2·0	7·7	1·5	283
For Year	15·67	1·5	3·5	1·7	141

INFECTIOUS DISEASES.

During the year I have received 114 notifications of infectious diseases from medical practitioners. These have been distributed as follows:—

Scarlet Fever	46
Typhoid Fever	30
Continued Fever	6
Diphtheria	5
Membranous Croup	1
Erysipelas	24
Puerperal Fever	2

Of these, two cases of typhoid fever were removed by arrangement to the Halifax Fever Hospital.

In two other cases nurses were supplied, one to 2 cases of typhoid fever, and one to a case of puerperal fever.

Scarlet Fever.—The epidemic of this disease, which commenced in Hove Edge, during the previous year (1895), continued through the first half of 1896.

The following Table, which gives the occupations of the parents and the adult members of the family, in scarlet fever cases, gives, I think, some idea of the manner in which the disease may be spread.

Governess	1
Commercial Travellers	2
Milkman	1
Factory Operatives	34
Postman	1
Shop Assistants	2
School Teachers	2

Typhoid Fever.—This is one of the diseases which we always have with us, and which makes its appearance every year, practically to the same extent.

I am in the expectation that the completion of the main drainage and sewerage of the district will have an effect in diminishing its prevalence. I cannot point to any particular thing as being specially associated with it, except, perhaps, general insanitary conditions in connection with drainage and refuse disposal.

The Table below gives the main sanitary circumstances of the 21 houses involved.

1.

Through Houses	9
Back-to-back Houses	12
	21

2. Sink Drainage:—

Trapped and disconnected	7
Trapped and not disconnected ...	5
Disconnected and not trapped ...	2
Untrapped and not disconnected ...	7
	21

3. Outside Drains:—

Piped, trapped, and ventilated ...	2
Piped, trapped, and not ventilated ...	10
Piped, untrapped, and not ventilated ...	4
Walled drains	4
No drains	1
	21

4. Cellar Drains:—

Trapped in proper manner ...	None
Untrapped or trapped in improper manner	5
No drain	16
	21

5. Closets:—

Water Closet	1
Tub Closets	13
Privy Middens	7
	21

9. Houses to Closets:

1 House to a Closet	5
2 Houses to a Closet...	13
3 Houses to a Closet...	3
	21

7.

Drains passing under Houses ...	9
All drains outside Houses	12
	21

I am inclined to attach great importance to drain-openings inside a house as the cause of typhoid fever, or in other words, I believe that constant inhalation even of small quantities of drain-gas may be a cause, if not of specific typhoid fever, at any rate of a form of disease which is, even by medical men, frequently taken to be typhoid fever.

Consider the drainage of the 21 invaded houses as shewn in the Table. Sink waste-pipes for example, were found to be communicating directly with the drain in 12 out of 21 cases: untrapped and unventilated house drains were found in 18 out of 21 cases: drain inlets within the cellars were found in 5 out of 21 cases, and drains passing under the houses in 9 out of the 21 cases.

In all these cases there was ample opportunity for drain-gas to penetrate into the houses, and I think the facts mentioned warrant my statement made above.

Measles.—The Borough has suffered very severely from measles during the year, and the disease appeared to come in two distinct epidemics, or waves of epidemic, the first during the months January to June inclusive, and the second from September to December inclusive, in which last named month it died out almost completely.

The cases reported during each month by the School Attendance Officer, and the school teachers, as well as by a few parents, are shown in the following Table:—

Month.	Cases.	Schools Principally Affected.
Jan.	9	Longroyd and Brighouse Church
Feb.	17	,, ,, ,, ,, (Infants)
March	53	Longroyd and Rastrick Church
April	46	,, ,, ,, ,,
May	10	Longroyd
June	28	,,
July	2	
Aug.	0	
Sept.	59	Brighouse Church (Infants' Dept. closed Sept. 29 to Oct. 10)
Oct.	34	St. Andrew's (closed Oct. 26 for 21 days)
Nov.	140	St. James' (closed Nov. 4 to Nov. 23)
Dec.	26	St. Joseph's (closed Oct. 26 for 21 days)
Total	424	

During the first epidemic 165 cases were reported (January to July inclusive), and for the first two months these were of an extremely mild character, very few of the children being confined to bed even during the months March to July. However, as the disease grew in prevalence its severity also seemed to increase.

In January and February there were no deaths from measles, but in March, April, May, June and July there were in all 12 deaths recorded, and a larger number than usual were registered as due to broncho-pneumonia in children — this being a common sequel of measles. During this time Rastrick was principally affected, only a few cases occurring in Church Street, Briggate and Elland Road, Brighouse.

The disease re-commenced in September in the very centre of Brighouse, and despite the fact that school closure was promptly resorted to, and every other measure that could be adopted was fully utilised, it continued to spread until it had practically exhausted the susceptible part of the population.

I am extremely doubtful whether school closure for such a disease as measles is a beneficial measure, and in the latter part of November, though I was strenuously urged to advise it, I refused.

One of my objections to it is that children relieved of the necessity of school attendance cannot be kept inside by their parents, no matter what the weather be like, I have often seen them playing or standing about outside, blue with cold and wet through; this must lower their vitality and their power of resisting chance infection.

Your Chairman pointed this out to me in the first instance, and I must say I had ample opportunity of verifying his statement during the last few months of the year.

I have therefore come back to the exclusion of infected scholars and children from infected households, and I think on the whole this works very well. Closure of Infants' Departments alone causes great disorganization of the whole School, as in the Boys' or Girls' Department there are invariably a large number of brothers and sisters of the 'infants.'

I discovered a tendency of many parents when one school was closed to send their children, even when there was measles in the house, to another School; this of course had to be counteracted by sending warnings to all the other Schools, and entailed a considerable amount of labour.

The greatest courtesy was shewn by the Managers of Sunday Schools, in either closing these Schools whilst the Day Schools were closed or in excluding children from infected houses.

Whooping Cough has been prevalent to some extent during the early part of the year, and again shews signs of reviving towards the end of the year. So far as the actual mortality goes, it has been but small, but whooping cough is such a prolonged and exhausting disease that a child who has recently suffered from it, very frequently becomes a victim to any zymotic disease, such as scarlet fever, which may be prevalent. And once having fallen a victim to this disease the recent sufferer from whooping cough, as a rule, stands but a poor chance of recovery—such at least is the experience of most Fever Hospitals. And our experience in Brighouse has been that an epidemic of scarlet fever following one of whooping cough tends to become widely spread and severe in character.

The Origin of Zymotic Diseases is in the majority of cases a most difficult thing to discover. In many cases we find on inquiry that flagrant sanitary defects exist on premises invaded by these diseases, but on the other hand we frequently find equally flagrant defects of longstanding on premises from which disease has been conspiciously absent, and we are asked to explain this apparant paradox. There is abundant evidence to shew that persons who have been for a long time living in an impure and tainted atmosphere gradually become acclimatised, or are subjected to a kind of involuntary preventive inoculation which protects them at any rate from the more serious consequences of their evil surroundings, just as a long residence in a tropical country renders persons immune to certain feverish or malarial diseases.

But a new arrival coming from healthy surroundings into such a polluted atmosphere, in the large majority of cases, suffers ill effects in the shape of headache, sore throat, diphtheria, and typhoid fever.

A similar experience with regard to polluted water is an everyday occurrence. People in a country place drink polluted water for it may be tens of years, and apparently thrive on it: visitors coming into the neighbourhood for a holiday, and drinking the water soon become ill with diarrhœa and typhoid fever. I have investigated many such cases. It is curious to note too, that the people who thus suffer at first from the polluted air or water, may afterwards become acclimatised or inured to its effects, and after the lapse of years, probably forget about their previous illnesses, and wonder or scoff at this same air or water being set down as a cause of disease. This too is a fairly common experience among Sanitarians.

But it is not the grave and flagrant sanitary defects which are after all the commonest causes of zymotic disease—people, despite their surface apathy, are generally aware of these and take precautions accordingly.

It is the small, scarcely perceptible, and generally unknown defects, which are reckoned of no account, and against which no precautions are taken, which are more frequently found as the accompaniment and cause of the diphtheritic throat, or the attack of typhoid fever, childbed fever, or cholera. That, at any rate, has been my experience, and that I know is the experience of a large number of others. The smallness of the mischief is its worst feature; it is unnoticed or disregarded, and its insidious work goes on without hindrance.—*Gutta cavat lapidem non vi sed salpe cadendo.*

Zymotic diseases owe their origin frequently not so much to faulty drainage or the lack of provision of proper sanitary requisites, as to the bad customs and bad habits of the people. In a large number of cases a house may be supplied with every sanitary requisite, but owing to ignorance, carelessness, or laziness, on the part of the inhabitants, these are allowed to get into bad order—gulley-traps get choked, sink waste water is thrown into dry ashpits or over the surface of the yard in front of houses, tea-leaves are thrown out into a yard from a doorstep, cabbage leaves, potato parings, and every variety of organic matter liable to putrefaction is thrown into an ashpit, and in host of other ways the people live like animals surrounded by filth and dirt of their own making.

All this points to the fact, which is realised by most sanitarians now-a-days, that the only true way to secure sanitary progress is by the Education of the people.

The Rules of Health ought to be taught in our Elementary Schools, free lectures on simple Sanitary subjects ought to be encouraged by local authorities as they are by the County Council, the religious bodies should devote a 'Sanitation Sunday' to the propagation of the lessons of hygiene, and I would also like to see the formation of a lay Health Society, to encourage the distribution of simple literature on Sanitary subjects, to discuss matters referring to public health generally, and those of the district more particularly, to bring to the knowledge of the proper authorities any existing Sanitary defects or nuisances which call for special attention, and to form a body of private Sanitary detectives and private Sanitary advisers.

The public are gradually becoming alive to the bad effect upon health of insanitary surroundings—at least so I judge from the fact that the number of applications I have received from private persons to inspect premises has largely increased during the past year. Such requests, of course, are invariably treated with perfect confidence—a fact which cannot be too widely known. Even the Sanitary Committee are frequently left in the dark as to the source from which the complaint of a nuisance has come in the first instance.

But I should also make it known that all communications which are sent to the Sanitary Department anonymously are invariably placed directly in the waste-paper basket, and receive no consideration whatever. If the person complaining will sign his name to his complaint, his honourableness will be met by honourableness on our part.

To return, other cases of zymotic disease have been traced by me to the conditions to which the sufferers have been exposed at their work places, and in this connection my experience this year has been that typhoid fever especially has orginated in this way. As a Sanitary Authority we have sufficient power to deal with unhealthy workshops, but the Inspector's time has been so much taken up with other things that this part of his duties has not received the attention it merits.

As regards factories, however, the regulation of Sanitary matters is divided unequally between the Factory Inspector and the Sanitary Authority, and the latter curiously enough get the smaller share, having only the questions of privy accommodation and fire-escape provision to deal with.

In the Factory Acts, but "rendered unto Cæsar the things that are Cæsar's" these things would not be so, but it is not safe for a Sanitary Official to step out from under the shadow of the law.

Much of the mortality from so-called simple infectious diseases, such as measles and whooping cough, results from one thing, in my opinion—the treatment of the children suffering from these diseases in a cold draughty kitchen instead of in a room upstairs, where even with a small fire the temperature would be more even and more suitable, and where the infected child or children could be kept apart from the others.

It is not always that there is extra work involved in carrying out this plan that it is neglected. One important factor in producing this state of affairs is that Yorkshire parents are to an astonishing degree the slaves of their own children. They give way to their children and pamper them far more than parents either in the North or in the South. I do not know the cause of it, but I know one finds it in nine-tenths of the Yorkshire cottage houses. Part of the explanation may be that the children go to work in the factories at a very early age and acquire a kind of independence by becoming wage earners before they are into their 'teens even. This independence may be transmitted downwards, and may gradually come to be manifested at an early age.

Early marriages, too, between people who consider only whether their combined weekly earnings will suffice to keep a home together and who do not consider whether they are fit for the responsibilities of bringing up children to be dutiful and respectful, as well as independent, is probably also an important cause of this deplorable social anomaly.

Be that as it may, the wilfulness of young children and the weakness of parents is a marked feature of domestic life hereabouts, and from my point of view as health officer, is especially to be deplored, inasmuch as it is not one of the smallest causes of the spread of infectious disease.

One hears every day almost the same thing from parents—"I can't keep him upstairs," "I can't keep him in bed," "He won't touch milk, he must have tea and cake,"—and so on through all the apparent trivialities of life.

Children will be good in such houses when their illness is so severe that they have not got the bodily strength to carry out their evil machinations, but directly the fever leaves them they order their parents to dress them and take them downstairs, and then in a very short time they announce their firm intention of going out to play with other children in the yard, whom they naturally infect. The feeble protests of their parents serve only to strengthen their perversity.

I have had a fairly large experience with children of all kinds and of all ages, from the scum of the slums (during my attendance at the Manchester and Salford Reformatory) down to the cherub who lived but to gaze in fondness and admiration at his parents, and my experience has invariably been that if children are treated with *uniform and even* firmness, and always with kindness and gentleness of course, they *can* be moulded to almost any pattern.

We want a little more of the Puritan in the Yorkshire constitution, and it would be the best constitution in the world.

I trust these remarks will not be deemed out of place. I can assure my readers that they have a decided bearing upon the public health.

SANITARY REPORT.

Inspections, &c.—I have kept a record of 866 visits paid by me to various cases of infectious illness, insanitary premises, etc., etc., but this, of course, does not include the whole of the work done. Schools have been inspected frequently with a view of determining the existence of unsuspected infectious disease. Chemical analyses have been carried out in several cases of suspicious water supplies and of suspected articles of food, such as butter, milk, flour, beer, etc. Consultations have been held and advice given to inquirers, and in many other ways investigations have been carried on with a view of maintaining the health of the district at as high a standard as possible.

The extent of my duties is rapidly increasing—a most satisfactory thing, as it indicates, amongst other things, an increasing growth of popular interest in sanitary matters.

Building.—There have been 52 new houses erected during the year, and the number is steadily increasing.

In my last Report I commented upon the amount of building which was going on, and since then I believe a specially rapid growth has taken place.

Bacteriology.—The question of fitting up a Bacteriological Laboratory in connection with the Sanitary Department came before your Committee in the beginning of the year. As I had not been able to get a proper estimate of the cost of this for the information of the Committee, and as it was not clear where to place the Laboratory, the matter was adjourned *sine die*. The means of bacteriological examination would be a most valuable adjunct to the Sanitary Department, for we could then :—

(1) Examine suspected cases of diphtheria with a view to positive diagnosis, with a view of determining whether the infectious period was over.

(2) Examine milk, &c., suspected of conveying diphtheria.

(3) Examine the sputum of suspected cases of phthisis or human consumption.

(4) Examine suspected milk or meat for tuberculosis.

(5) Examine the blood of suspected cases of typhoid fever with a view to positive diagnosis.

(6) Examine milk, water, food, etc., suspected of conveying typhoid fever.

The cost of providing the necessary apparatus for such work would be about £25, or excluding a microscope, since I should be happy to use mine in the service of the Corporation, about £10.

We have had several cases of suspected diphtheria which have only been cleared up by bacteriological examination (undertaken by Mr. F. W. Richardson, of Bradford), and I feel confident that the benefits derived would far more than compensate for the small outlay.

Dairies, Cow Sheds, and Milk Shops.—Your Inspector has kept a vigilant eye upon these, and has inspected 44 cow sheds during the year.

For the most part they are well kept, and I believe cow keepers are awaking to the fact that it pays them well to look to the Sanitary conditions and surroundings of their cow sheds.

There is one thing I have noticed however in those that I have visited, namely, the frequent storage of hay immediately in front of the animals, or in a loft just over their heads. In these positions, the hay is liable to become tainted with the emanations from the cows' bodies, and more especially with their breath.

The latter might be a cause of the spread of phthisis or consumption of the lungs to healthy cattle.

Milk and its Collection.—During the year my attention has been called, by one of the members of your Council, to an account in the *Manchester Guardian*, of some experiments conducted by Dr. Russell, at Madison, in connection with the milking of cows. The article is such an interesting one, and will, I think, commend itself on common sense lines so strongly to all persons, that I venture to introduce a brief *résumé* of the lessons to be gathered from it.

(1) Referring first to the cleanliness of milk pails and other vessels, Dr. Russell points out that mere scalding of the milk pail with boiling water, followed by cooling with cold water or exposure to the air, does not give nearly such good results as the use of a steam-jet. Where steam is used by farmers for the "sterilization" of their milk vessels, the milk is found to keep sweet for a much longer time than where the usual method is adopted.

(2) The foremilk, Dr. Russell recommends, should, to the extent of a very small quantity, be "stripped" on to the ground, as it is often very impure.

(3) The cattle should be kept well groomed, and preferably just before milking, the abdomen and flanks should be moistened with a slightly damp cloth, and the udder and teats should be washed.

This is by no means usually done, as one may know, firstly, by the fact that milk has to be passed through a fine sieve or strainer to remove hairs, &c., before it is fit for the consumer, and secondly, by the fact that even when one gets milk as a consumer, on allowing it to settle one can readily discover an amount of dirt in it which is as astonishing as it is disgusting.

The almost universal practice of milkers of leaning their heads against the flank of the animal they are milking helps to rub off hairs and other particles of dirt which frequently fall into the milk and pollute it.

(4) That milking is usually conducted in a cow shed in which dry fodder (hay and straw) and dry bedding are used, invariably causes contamination of the milk. The feeding of cows on dry food immediately before or during the process of milking in a closed shed is therefore an undesirable practice.

(5) To save contamination of the milk afterwards, it should be covered up *immediately* and taken out of the cow shed into pure air.

Might I add to these recommendations one which is equally important in my opinion, and which refers not to the cow and its keeping, but to the person who milks the cow. It is simply a matter of cleanliness that I wish to advocate—that the milker should thoroughly wash his hands and face before milking, and that he should put on a cap and take off his coat.

These recommendations will, I have not the slightest doubt, be received with " scorn and derision " by the majority of milk dealers, and probably by a good many of the public. It would need but one glance through a magnifying glass of very low power, however, to convince 90 per cent. even of these. I can honestly say this, that knowing what I do about the conditions under which it is obtained, I look upon unstrained and unboiled milk with suspicion, and often with a feeling akin to disgust.

None of the recommendations mentioned above, with the exception perhaps of the steam jet for sterilization, present the slightest difficulty to anyone desirous of carrying them out—in fact, they may be all included under one single heading—*cleanliness*. The sterilization might be carried out by the more liberal use of boiling water, which should be allowed to remain in the pails &c., for a longer time, and should be repeated two or three times. This should be followed by the cooling of the pails in the purest air obtainable, or by water which has been boiled, covered up and allowed to cool.

Back-to-Back and Through Houses.—In connection with every case of notified disease, inquiries were made as to the construction of the house, and I append a Table from which it will appear that through houses have a decided advantage over back-to-back houses in that cases of infectious disease are not nearly so liable to spread to other members of the family.

Out of 46 cases of scarlet fever, 24 occurred in back-to-back houses; 14 of these 24 cases were single ones—that is, were not followed by others in the same house,—but 10 out of the 24 were cases which followed after previous cases.

In through houses 22 cases of the same disease occurred, and 20 of these were not followed by secondary cases; only 2 were secondary cases —that is, followed after other cases in the same house,—and these both occurred in one house.

Taking typhoid fever as a further example, 30 cases of this disease occurred in the two classes of houses combined.

In back-to-back houses 7 out of a total of 20 cases were not followed by others; but 13 cases were found to follow or to be followed by others.

In through houses 10 cases occurred, and 8 of these were single cases —not followed by others; in one instance only did two cases occur consecutively.

	Houses with no through Ventilation.			Houses with through Ventilation.
	A. Back-to-back Houses.	B. Other houses without through Ventilation.	Total.	Total.
I. Scarlet Fever.				
1. Single Cases (not followed by others) ...	12	2	14	20
2. Secondary Cases (following or followed by others)... ...	7	3	10	2
II. Typhoid Fever.				
1. Single Cases (not followed by others) ...	7	—	7	8
2. Secondary Cases (following or followed by others)... ...	9	4	13	2

This confirms an opinion which I have previously expressed—that zymotic disease will spread to a greater extent, no matter what its nature, in houses into which fresh air cannot enter freely to dilute the poison, than in houses where the poison is rapidly swept away by proper through ventilation.

Indecent Occupation.—I have been astonished to find in several private houses that the indecent or improper conjoint occupation of bedrooms by young adults of both sexes, which is so severely forbidden in Common Lodging Houses, Canal Boats and the like, is quite a common thing. It certainly is no strange thing to find this for example in houses where they take in lodgers, but to find it sanctioned by parents is indeed regretable, especially in cases where it need not be so—where the accommodation is sufficient otherwise.

In one case I was informed that one bedroom was occupied by 2 males aged 22 and 14 respectively, and 2 females aged 19 and 17. This was done although there was another room in the house which was not used for any other purpose and which could readily have been turned into a suitable bedroom. This was also in a family which was fairly well-to-do.

Notification.—As usual the system of compulsory notification has worked well and no friction whatever has occurred between your Committee or myself as your officer and medical practitioners.

Notification by the householder has not been insisted on except in those cases where no doctor was in attendance. In one such case a woman whose three children were suffering from scarlet fever, received into her house during the daytime—for meals, &c.,—two children of a neighbouring house who were attending a public elementary school all the time, their mother being out at work all the day. The mother of the children suffering from scarlet fever was summoned before your Committee and reprimanded for non-notification. But a curious point was brought out on consideration of the other case. Though Mrs. A. had sent her two children into Mrs. B's. house where she knew there were three children ill of scarlet fever, and not isolated in any way, and though these two children of Mrs. A's. were sent to school for several weeks, until I discovered the state of affairs, neither of these women was actually guilty of a breach of the law. The Public Health Act provides for the exposure of persons *suffering from* any dangerous disorder, but not of any persons who may recently have been in contact with or in charge of such sufferers.

Your Chairman, therefore, on my pointing this out, asked me to summon before your Committee the parent of the children who had been exposed to contagion and afterwards sent to school, and she too was censured and had the folly and danger of her proceedings pointed out to her.

I am glad to see that the medical men in this district are so fully alive to the influence of insanitary surroundings upon health. In fact, many of them have adopted a voluntary system of notification of insanitary conditions associated with sickness, and in several instances our examination of the premises has provided them practically with the diagnosis, prognosis, and treatment of their cases.

School Attendance and Infectious Disease.—The system which I commenced for the prevention of the spread of infectious diseases amongst school children has been carried out in a modified manner during the year, in the manner in fact which I outlined in my Report for 1895. Briefly, this is:—

1. In cases of infectious disease such as scarlet fever and diphtheria or membranous croup, *all* children from the infected household are excluded by special certificate until a second certificate is sent certifying that they may safely return.

2. In cases of typhoid or continued fever, erysipelas, and contagious ophthalmia, the child who has the disease is alone specially excluded as above.

3. In cases of measles, whooping cough, chicken pox, and mumps, all the children in the infected household are excluded by special certificate for a specified period, which varies according to the nature of the case and other factors influencing the course of the disease, or in some cases "until better." No special "return" certificate is issued.

4. In cases of ringworm and contagious skin diseases generally, if this be on a part of the body which is necessarily exposed and cannot be covered, the child suffering is excluded by special certificate for an indefinite period; the parents are advised to get a medical certificate of cure before allowing it to return. If the part of the body affected can be covered by a cap, bonnet, shawl, &c., the child suffering is allowed to continue in attendance at school, and special caution is sent to the parents and school teacher to see that this covering is kept on, and that the child shall not be allowed to use the same soap, towels, &c., as other children at school.

The parents in all cases have a warning sent to them of the occurrence of the infectious or contagious disease in their children, and a handbill giving instructions as to the prevention of the spread of infection is also sent.

This system I have found to answer fairly well, although it entails a large amount of work on me alone. I intend, however, in spite of this, to keep it up as long as I can, for the number of school children is a large one—about 4,500,—and once disease is allowed to spread unchecked, it generally makes great headway amongst such children.

I have issued in all 1,094 certificates under this scheme, as follows:—

I. Preliminary Certificates:

Measles	404
Scarlet Fever	68
Whooping Cough	76

Chickenpox	66
Ringworm	50
Other Contagious Skin Diseases ...	26
Typhoid Fever	24
Mumps	14
Febricula	6
Diphtheria	6
Erysipelas	4
Contagious Ophthalmia	2
	746
II. Final ("Return") Certificates	348
Total	1094

The School Attendance Officer (Mr. J. B. Hepworth) has exercised the greatest vigilance in these cases, and has afforded me most valuable help; in fact, without his careful co-operation the whole system would have fallen through. The school teachers have also exercised great care in the exclusion of infected scholars and in reporting suspicious cases to me.

Disinfection.—A large number of houses and most of the schools have been disinfected during the year. I insist on this being thoroughly carried out in cases of scarlet fever and diphtheria, but in cases of typhoid or continued fever, which are not generally regarded as ærially conveyed diseases, I do not insist on the first part of the disinfecting process if people offer any objection to it. The mechanical disinfection, so to speak —that is the stripping of wall-paper, washing of woodwork and floors, disinfection and washing of soiled linen, scouring out of house drains, etc.,—is in my opinion of far more effect.

Several householders have complained of being turned out of their homes for four or five hours during the process of disinfection; their neighbours are often unwilling to receive them, and indeed it is hardly the right thing for persons to go straight from an infected house into another house in which there may be susceptible persons. Your Committee is obliged by the provisions of the Infectious Diseases (Prevention) Act of 1890 to provide temporary shelter with any necessary attendance free of charge for the members of any family in which infectious disease has occurred and who have to leave their house to allow of disinfection being carried out by the Authority.

In a good many cases I should imagine the quarantine house at the Clifton Hospital might be used for this, but of course in many cases it would be impracticable. For example, it would be too much to expect women and children to walk from the top of Rastrick or from Hove Edge and back again.

A single-roomed house, if such could be obtained somewhere in the vicinity of Ogden-lane and another somewhere about Slead Syke, would probably be necessary for such parts of the district as would be too far away from the Hospital.

Disinfection in Cases of Phthisis.—During the latter half of the year I commenced a system to secure as far as possible the disinfection of houses inhabited by persons who had died of phthisis or "consumption of the lungs." Taking the weekly returns of deaths, I mark those which had occurred from phthisis, and by making inquiries (without, of course, disclosing the object for which I required the information) I find the name and address of the nearest relative of the deceased. I then send a private and confidential communication (as below) explaining the infectious nature of the malady and offering to undertake the disinfection of the house, bedding, clothing, etc., entirely, or to provide disinfectants of a suitable nature free of charge. I am pleased to be able to report that with but one single exception the replies have been favourable, the people concerned having as a rule been fully alive to the necessity for disinfection, and being ready to grant permission or having already disinfected the house, &c., to my satisfaction.

(Copy).

SANITARY DEPARTMENT.

PUBLIC OFFICES,

BRIGHOUSE,

.....189

Private and Confidental.

Dear Sir or Madam,

I am informed that you have recently had a death from consumption in your house. This disease is recognised as an infectious one and there is therefore a danger to those living in the same house, and especially those who occupy the same room as the sick person did during life. This danger can be very greatly lessened by proper disinfection of the house, the bedding, clothing and other articles used by the sick person. I would therefore very strongly advise you to have it thoroughly carried out as soon as possible. If you are desirous of having it done we will either do it for you or supply the material and instructions, but I think it would be better if you left it in our hands. The stoving of the house or room would take about four hours, during which time it would be impossible for anyone to stop in the house.

I enclose a paper and will be obliged if you will fill up the proper part and forward it to me. Stamped addressed envelope is enclosed.

When choosing the time kindly give us two clear days' notice.

If I can assist you in any other way in this matter I shall be happy to do so as far as possible.

Yours Faithfully,

MEREDITH YOUNG.

1. *If you want us to disinfect the house or room please fill up this part only.*

Please make arrangements for disinfecting my house at about o'clock on the day of

Name_____

Address_____

2. *If you want to disinfect the house or room yourself please fill up this part only.*

Please send me as early as convenient suitable material for disinfecting my house to

Name_____

Address_____

Nuisances.—During the year no fewer than 503 cases of nuisances have passed through our hands, 53 of these being left over from last year, and 450 new cases having come to our knowledge. Of these 454 have been dealt with and 49 have been carried forward: many of the latter are however, in course of remedy.

In the report of the Inspector of Nuisances, which is appended, you will find a classification of these and details of the more important ones.

Workshops.—These have not received the attention they deserve owing to pressure of other matter, but 19 have been inspected during the year. As a general thing only very slight sanitary defects were discoverable and there was no difficulty experienced in getting these remedied.

Smoke Nuisance.—One of the most important and at the same time most difficult question to deal with is the **Smoke Nuisance**, which is not only a standing disgrace to the district but also indirectly menaces the health of the people. Scientific evidence has proved beyond a doubt that smoke condenses atmospheric vapour and thus causes fog and rain and renders the climate damp and cold. And science has also proved, again without a doubt, that the accumulation of fog or mist prevents the passage through the atmosphere of that quality of sunlight which is fatal to the bacteria or germs of disease present in such vast numbers in its lower strata.

If we add to this the injurious effects of those noxious vapours which form a part of the smoke on vegetation and architecture we have a sufficient indictment against this ever present nuisance.

In dealing with this nuisance three things must always be borne in mind:—

(1) That the limits allowed by your Committee for the emission of 'dense' or 'moderate' smoke are much more favourable to the manufacturers than those fixed by any of the busiest and largest manufacturing towns in the North of England. (See Table).

Town.	Limit of Black Smoke allowed before taking proceedings.	Length of Observation.
Oldham	9 minutes	One hour
Manchester ...	1 minute	Half-an-hour
Bolton	2½ minutes	Do.
Preston	No standard fixed but practically 6 minutes	Do.
Nottingham ...	5 minutes usually allowed for coaling up	About 15 minutes
Salford	5 minutes	One hour
Halifax	5 minutes	Do.
Sheffield ...	1 boiler—2 minutes	Do.
	2 boilers—3 minutes	Do.
	3 boilers—4 minutes	Do.
	4 or more—6 minutes	Do.
Leeds	5 minutes	Do.
Liverpool ...	4 minutes	Varies
Huddersfield ...	7 minutes	One hour
Blackburn ...	7 minutes	Do.
Newcastle-upon-Tyne	No limit has been fixed	Do.

Taken from Dr. Tattersall's (Oldham) Annual Report for 1895.
("Public Health," February, 1897).

(2) That numerous practicable and comparatively inexpensive smoke preventing appliances exist, many of which effect a saving in coal.

(3) That your Committee has the duty of carrying out measures to abate the smoke nuisance cast upon it by the Public Health Act of 1875, and that this duty is not an optional one.

The above remarks must not be understood as applying to the manufacture or annealing of wire, which is a special process and one much more difficult to deal with. Our principal nuisance is from chimneys connected with steam boilers, and these most decidedly admit of a remedy.

The contention may be started that even when all the black smoke is prevented by the consumption of the carbon particles or soot that the sulphur vapours will still be present in the atmosphere, and these are in reality the most injurious constituents of smoke. It is therefore frequently urged that no real advantage will be reaped by the prevention of black smoke emission.

To consider this. The amount of sulphurous acid formed during the combustion of coal is about 1 per cent., the amount of carbon particles or soot being about the same. Why should the one be noticed and not the other? This reason is that sulphurous acid is capable of rapid diffusion, and by diffusion it is very quickly diluted with large volumes of air and rendered imperceptible. This is the reason too that although the gas has a most penetrating and easily observed smell, one does not notice it except perhaps in very foggy weather when the air is heavy and stagnant, and only then in the immediate neighbourhood of its production.

Soot being a solid cannot diffuse, and the heaviness of the soot particles prevents their being separated, so to speak, by masses of air. Soot, too, is of an oily nature, a fact which may easily be demonstrated by smearing a particle over the back of one's hand, and being so tends to stick wherever it lights. Thus it soon chokes up the pores of the human skin and the pores of plant leaves, damages the wares of shop people, blackens buildings, and soils the interior of houses.

When people discover that as the result of leaving their windows open their curtains, &c., become blackened and spoiled and their rooms rendered dirty, they very soon adopt the plan of keeping their windows closed day and night, and their rooms are consequently ill-ventilated. And ill-ventilated rooms are one of the most common causes of chest diseases, anæmia or poverty of blood, indigestion, and a host of other complaints.

I may render myself open to the charge of carrying the evils of black smoke too far. But I can assure every person who may think so that I am supported in every particular by my own experience as well as in a larger measure even by the experience of others.

The Tub System of Refuse Removal.—Your Committee have had a number of cases reported to you of offensive privy-middens and although the cases have as a rule been converted to the pail system, a number of cases have been left over until the sewage scheme is nearer completion with a view of converting them to the water-carriage system.

The pail system is undoubtedly an immense stride in advance of the privy-midden system and is often found useful in comparative small towns as an intermediate system between privy-middens and water-carriage.

But there is no denying that it possesses great disadvantages:—

(1) That it is a most expensive system.

(2) That in many cases, especially in closely populated places, it is liable to cause a nuisance.

(3) That there are often difficulties in the way of disposing of the pail contents after collection.

In support of the first statement, as to the expense, I find that the cost of the system may be taken as averaging 7/6 per pail per annum in the whole of the district of the Borough. This cost includes team and manual labour, cost of repairs and maintenance of tubs, rent of Depôt and cost of disposal of refuse. In Rastrick, where the houses are more scattered the cost is about 9/6 per pail per annum, and in Brighouse about 6/1. On this basis then, an ordinary water closet with the necessary fittings costing about £3 would pay for itself in 8 or 9 years.

In a town such as ours where an ample and cheap water supply is obtainable, and where a system of main sewerage and sewage disposal will shortly be completed, there should be no hesitation whatever in deciding upon the water-carriage system as the most efficient, cleanly, and sanitary method, and in the end the least costly.

You will hear it stated that the character of the sewage will be so modified by the introduction of the water-carriage system as to render it more difficult to deal with at the outfall works.

But this is not so—"it has been found that the addition of water "closet sewage *scarcely alters the chemical composition of the average sewage of "a town.*"

"Hence the necessity of treating the sewage.....is quite inde- "pendent of the admission of waterborne excreta to the sewers."

Waste water closets are being tried by one or two owners of property in the town as an experiment and so far I believe with entirely satisfactory results. I myself am of opinion that they need supplementing by some arrangement for periodical flushing with fresh water. In most towns where they are in constant use this is very simply overcome by the house-holder turning the tap on for a few minutes every morning.

Your Committee have received complaints about the smells from the Sanitary Depôt from a number of people during the past year.

I have experienced this smell myself when visiting premises in Birds Royd, and I can assure you that a very grave nuisance exists. I must persist in stating that a great deal of it could be prevented by fencing off the field on the side next to the river, roofing over the tanks with corrugated iron or wood so as to keep off the sun in summer, and utilising plenty of gypsum every time the tanks are being replenished or broken into.

We are in want of a small cremator in which to destroy infected bedding, diseased meat, contents of pails in typhoid fever cases, &c. The paper, rags, &c., from the ashpit refuse could also be burned here, and this would prevent nuisance from that part of the operations at the Sanitary Depôt.

Public Slaughterhouse.—This has been frequently visited by myself and by the inspector. Its general condition is very well kept up by the manager there, who is a practical butcher and keeps a keen eye on the quality of meat, at once calling our attention to anything which in his opinion is below par or in any way suspicious.

The situation of the slaughterhouse, however, might be better, and more accommodation would be much appreciated.

Several cases of diseased meat have been brought to our attention during the year by the manager of the slaughterhouse, but these were destroyed voluntarily, no effort being made in any way to "run the gauntlet."

Our practice is now, where there are no suspicious circumstances in connection with an unsound meat case, and where there is no effort at concealment whatever, to give the owner of the meat the option of giving us a written order under his hand to take, carry away and destroy the meat, which we do without putting him to any trouble or expense. But if there be the slightest "shadiness" about the case, or if any refusal is made to giving us this signed order to seize and destroy, then the meat is seized in the usual manner and the case reported to the Committee.

There are two matters which may perhaps not be out of place here—two practices of butchers which certainly might be remedied with benefit.

One is the exposure of uncovered carcases or pieces of meat during their transmission through the streets. This cannot be called cleanly or pleasant to the sight of most people, and could very easily be remedied by covering the meat above and below with a clean piece of canvas or sacking.

The other practice, which is decidedly objectionable, is the washing of show-boards in butchers' shops at all hours of the day, and the washing of baskets and blocks, often on the sides of the pavement, also at all hours of the day.

The pavements of the principal streets are often rendered dirty by soap-suds in no small quantity, and foot passengers have to take to the street. Surely this could all be done before ten o'clock or even nine o'clock in the morning without any trouble.

Sewage Scheme.—The scheme of main sewerage of the Borough and the ultimate disposal of the sewage has now fairly started and is in rapid progress. A main sewer has been laid in Slade-lane, Rastrick, and another along the Dewsbury and Elland Road (for Grantham and Badger Hill) to meet the more urgent requirements of these portions of the district. That part of the main sewerage scheme which takes in Rastrick Common has also been completed, and the houses have been connected up.

Water Supply.—No important extensions have been made in connection with the water supply of the Borough, except that a number of new houses have been supplied. The average daily consumption of water in the Borough is 12 or 13 gallons per head. The water is of good quality, but is capable of acting upon lead. I have, however, repeatedly tested samples of water taken under suspicious circumstances, and have not succeeded in finding any actually contaminated by lead.

Sewers and Open Sewer Ventilators.—In some of the low-lying portions of the town the sewers are laid, I believe, with the minimum amount of fall, and as a consequence deposits gradually accumulate, and, decomposing, give off offensive gases which find an exit through the manholes at the street level.

Another cause of this nuisance is the fact that the main sewers have been constructed at different times, and in one part of the Borough the main sewer is at first of small diameter, then of larger diameter, and afterwards of small diameter again. In the portion of larger diameter there is certain to be slackening of the current of sewage and deposit ; the evils of this will tell back to a considerable distance.

A large number of complaints have been received during the year from persons who have been annoyed by the bad smells from open manholes of this kind. The complaints, however, have not come so much from the residents in the most low-lying parts, but from those on the slope and the top of the hills. This was only to be expected, for most of the sewers on the hillsides are laid with fairly steep gradients, and in such cases the current of sewer gas almost always tends to pass from the lower to the higher levels.

The complainants invariably suggested that the manholes should be provided with an air-tight cover "to stop the smell coming up." But this is not the remedy.

The real remedy is to provide self-cleansing sewers in which no deposit shall occur.

But where this cannot be done, then regular and thorough flushing should be carried out, and where the manhole is found to be a constant cause of complaint as in closed in streets for example, then the sewer should be ventilated by a pipe carried up well above some convenient building. But this pipe should be fixed in a thoroughly gas-tight manner with leaded joints, and it should be carried up the building well away from windows or chimneys, otherwise it will be a very grave source of danger. This cannot be too strongly insisted upon.

APPENDIX I.

INCLUDING VARIOUS TABLES,

Statistical and Otherwise.

(A) TABLE OF DEATHS during the Year 1896, in the BOROUGH OF BRIGHOUSE,

Classified according to Diseases, Ages, and Localities.

a	Mortality from all Causes, at subjoined Ages.							i	Mortality from subjoined causes, distinguishing Deaths of Children under 5 Years of Age																	
									1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
													Fevers																	
	At all ages	Und'r 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards		Smallpox	Scarlatina	Diphtheria	Membranous Croup	Typhus	Enteric or Typhoid	Continued	Relapsing	Puerperal	Cholera	Erysipelas	Measles	Whooping Cough	Diarrhœa and Dysentery	Rheumatic Fever	Phthisis	Bronchitis, Pneumonia, and Pleurisy	Heart Disease	Influenza	Injuries	All other Diseases	Totals
	b	c	d	e	f	g	h																							
BOROUGH	346	77	43	11	24	114	77	Under 5		2		1		0					1	16	6	5	0	0	37	0	0	3	49	120
								5 upwds		1		0		2					1	0	0	2	2	40	41	26	3	8	100	226
								Totals		3		1		2					2	16	6	7	2	40	78	26	3	11	149	346

The subjoined numbers have also to be taken into account in judging of the above records of mortality.

Deaths occurring outside the district among persons belonging thereto.	14		1		1	8	4	Under 5																0	0		0	1	1
								5 upwds																3	1		1	8	13
Deaths occurring within the district among persons not belonging thereto.								Under 5																						
								5 upwds																						

Area in Acres, 2,224
Population (1891), 20,666
Population (estimated to middle of 1896), 22,960
} of Borough of Brighouse.

Death Rates. { General, 15·67 } per 1,000 Population, estimated to middle of 1896.
{ Infants (under one year of age, 141 } per 1,000 Births registered.

(B) TABLE OF POPULATION, BIRTHS, and of NEW CASES OF INFECTIOUS SICKNESS coming to the knowledge of the Medical Officer of Health, during the 1896, in the

BOROUGH OF BRIGHOUSE,

Classified according to Diseases, Ages, and Localities.

	Population at all Ages.		Registered Births.	Aged under 5 or over 5	New cases of Sickness in each Locality, coming to the knowledge of the Medical Officer of Health.											Number of such Cases Removed from their Homes in the several Localities for Treatment in Isolation Hospital (Halifax).
					1	2	3	4	5	6	7	8	9	10	11	
									Fevers.							
a	Census 1891 *b*	Estimated to middle of 1896 *c*	*d*	*e*	Smallpox	Scarlatina	Diphtheria	Membranous Croup	Typhus	Enteric or Typhoid	Continued	Relapsing	Puerperal	Cholera	Erysipelas	
BOROUGH	20666	22960	547	Under 5		15	2	1		3	1		0		2	Under 5 years, 0; Over 5 years, 2—Typhoid Fever.
				5 upwds		31	3	0		27	5		2		22	
				Totals		46	5	1		30	6		2		24	

Notification of Infectious Disease compulsory in the District since 1890.

The Isolation Hospital used by the Sick of the District is the Brighouse and District Joint Hospital, Clifton (in Halifax Rural District), at present undergoing alteration and extension.

TABLE C. 1896.

BRIGHOUSE URBAN SANITARY DISTRICT.

MEDICAL OFFICER OF HEALTH, MEREDITH YOUNG, M.B: C.M: D.P.H.

SANITARY INSPECTOR, RALPH MARSDEN.

WATER SUPPLY—

Quantity? Adequate. Quality? Excellent.

Action on Lead? So slight as to be practically inappreciable.

No extensions or change during 1896, except supply of new houses.

SEWERAGE—

System? Single.

Ventilation by Lampholes, Manholes, and a few Special Shafts.

Flushing arrangements? Chiefly hand flushing.

Extensions or Improvements during 1896? New Scheme commenced and in rapid progress.

SCAVENGING—

Privy middens, &c., cleansed by Sanitary Staff fairly satisfactory.

ADOPTIVE ACTS, BYE-LAWS, AND REGULATIONS—

Date of Adoption.

Infectious Disease Notification Act, 1889? 1890.

Infectious Disease Prevention Act, 1890? Rastrick 1891; Boro' 1893.

Public Health Acts Amendment Act, 1890? 1895.

Regulations under the Dairies, Cowsheds, and Milkshops Orders? Borough 1893

Regulated Buildings, Trades, &c.	Number. Registered.	Number. Inspected.	General Condition.	Legal Proc'dings (if any)
Common Lodging Houses	2	2	1 satisfactory; 1 not satisfactory in all r'sp'cts	None.
Canal Boats	—	50	Good.	,,
Slaughter Houses	7	7	Fair.	,,
Dairies ... ... / Cowsheds ... ... / Milkshops	109	80	On the whole satisfactory	,,
Offensives Trades	—	1 Soapworks.	Satisfactory.	,,

Schemes before L. G. B? None.

L. G. B. Inquiries? None.

L. G. B. Inspection? None.

SPECIAL REPORTS—

Number made by M.O.H. during 1896? School Closure Reports only. Copies have been forwarded to the County Council and the Local Government Board.

BIRTHS—(*a*) Number of each sex:—Male 274, Females 273.

(*b*) Number of Illegitimate, included in the above, 17

(*c*) No information as to Still-Births.

DEATHS—(*a*) Number of each sex:—Males 195, Females 165.

(*b*) Number Uncertified, included in the above, 28.

DEATH RETURNS—No correction necessary for non-residents dying within the District. Corrections made from returns of deaths of residents occurring in public institutions (Workhouses, Hospitals, &c.,) outside the District? } 14 deaths included in the above totals.

ISOLATION HOSPITAL—

Now in course of alteration and extension.

SANITARY WORK—

Number of Houses built during 1896? 52.

Total Number of Nuisances in hand at close of 1895? 53.

At close of 1896? 49.

Reported during 1896? 450.

Abated during 1896? 454.

Total Number of Summones, or other legal proceedings? One.

House Drainage—

Number of Sinks disconnected during 1896? 174.

Trapped Sinkpipes? 28.

CLOSETS—

Number constructed during 1896, 10 Water Closets, 18 Waste-Water Closets, 193 Tub Closets.

ACTION TAKEN IN REGARD TO THE FOLLOWING MATTERS:—

Houses unfit for Habitation, none.

Overcrowding, 3 cases remedied.

Seizure of Unsound Food, 3 cases. Prosecutions, none.

Samples taken under the Sale of Food and Drugs Act, 3 Butter, 1 Milk. Prosecutions, Two successful.

River Pollution. No special action.

Smoke Abatement, 50 observations taken and 13 cautionary notices issued : no further action.

Workshops. 19 inspected.

Schools. Inspected by M. O. H. frequently.

Copy of Report of Inspector of Nuisances is appended.

TABLES SHEWING THE POPULATION OF BRIGHOUSE AND RASTRICK AND THE NUMBER OF BIRTHS AND DEATHS FROM 1874 TO 1894; ALSO THE BIRTH RATES AND DEATH RATES IN THESE YEARS.

I.—BRIGHOUSE.

Year.	Population.	Births.		England and Wales Birth Rate.	Deaths.		England and Wales De'th Rate
		Number.	Rate per. 1000 of Population.		Number.	Rate per 1,000 of Population.	
1874	7,000	260	37·4		156	23·7	
1875	7,182	278	38·7		161	22·4	
1876	7,290	262	35·9		151	20·7	
1877	7,400	276	37·2	36·1	163	22·0	20·4
1878	7,500	291	35·2	35·9	165	20·0	21·7
1879	8,300	283	34·0		178	21·4	
1880	8,385	287	34·2	34·6	180	21·4	20·4
1881	7,962	263	33·0	33·9	137	17·2	18·9
1882	8,120	314	38·6	33·7	138	16·9	19·6
1883	8,280	280	33·0	33·2	152	18·3	19·5
1884	8,340	289	34·6	33·5	179	21·4	19·6
1885	8,505	292	34·3	32·5	199	23·3	19·0
1886	8,700	260	29·8	32·4	185	21·2	19·3
1887	8,780	304	34·6	31·4	169	19·2	18·8
1888	8,880	301	33·9	30·6	139	15·6	17·8
1889	9,100	279	30·6	30·5	155	17·0	17·9
1890	9,220	275	29·8	29·7	201	21·8	19·2
1891	10,276	321	31·7	31·4	199	19·2	20·2
1892	10,507	282	26·8	30·5	199	18·9	19·0
1893	10,610	286	26·9	30·8	194	18·2	19.2

II.—RASTRICK.

1874	6,304	285	45·3		167	26·3	
1875	6,428	313	48·6		165	25·6	
1876	6,540	281	42·9		146	22·2	
1877	6,695	304	45·4	36·9	153	22·8	20·4
1878	9,000	294	32·6	35·8	179	19·8	21·7
1879	9,060	305	33·6		171	18·8	
1880	9,135	299	32·7	34·6	201	22·0	20·4
1881	8,036	327	40·6	33·9	163	20·2	18·9
1882	8,252	292	35·3	33·7	168	20·3	19.6
1883	8,465	280	33·0	33·2	167	19·7	19·6
1884	8,680	290	33·4	33·5	222	25·5	19·5
1885	8,825	306	34·6	32·5	159	18·0	19·6
1886	8,950	268	29·9	32·4	178	20·7	19·0
1887	9,075	293	33·3	31·4	179	19·7	18·8
1888	9,592	285	30·7	30·6	159	16·6	17·9
1889	9,865	276	30·0	30·5	180	18·5	17·9
1890	9,981	280	28·1	29·7	164	16·4	19·2
1891	9,279	311	33·4	31·4	212	22·9	20·2
1892	9,448	270	28·5	30·5	172	18·2	19·0
1893	9,583	276	28·8	30·8	159	16·5	19·2

III.—BOROUGH.

1894	22·030	571	25·9	29·6	312	14·16	16·6
1895	22,570	573	25·38	30·3	349	15·46	18·7
1896	22,960	547	23·8	29·7	360	15·67	17·1

Table II.—Shewing Population, Births, &c., in other Towns in the West Riding from which Returns were received.

City or Town.	Population 1896.	Births.		Deaths.		Zymotic Death Rate.	Phthisis Death Rate.	Respirat'ry Disease Death Rate.	Infant Deaths per 1,000 Births.	No. of Notifications Received.
		Number.	Rate per 1,000.	Number.	Rate per 1,000.					
Leeds	402,449	12,573	30·8	7,681	18·8	2·3	1·5	4·0	169	2,367
Sheffield	347,278	11,853	34·1	6,732	19·3	3·12	1·3	4·25	175·5	3,212
Bradford	228,809	5,939	25·5	3,840	16·5	1·58	—	—	143	—
Huddersfield	100,463	2,096	20·54	1,712	16·78	1·69	1·68	3·54	167	590
Halifax	95,400	2,329	24·4	1,467	17·4	1·0	1·6	4·1	—	199
Barnsley	40,130	1,402	34·93	790	19·68	3·76	1·79	4·08	184·7	491
Keighley	38,000	1,156	28·4	674	17·7	1·4	1·5	3·6	163	153
Batley	29,607	887	29·95	601	20·29	4·05	2·16	3·81	178	233
Harrogate..	17,500	288	16·4	222	10·3	0·5	1·1	2·2	125	13
Ripon City	7,512	196	25·8	116	15·2	2·0	—	—	127	9
Cleckheaton	12,440	338	27·17	175	14·06	1·2	1·04	2·0	151	100
Ossett	11,460	315	27·39	198	17·27	2·0	1·04	2·61	155	133
Pudsey	13,995	412	29·4	259	18·5	2·2	1·5	3·2	145	44
Shipley	24,665	587	23·7	388	15·7	0·7	1·5	—	141	13
Hemsworth (Rural)	16,909	719	42·5	294	17·3	3·3	—	—	161	172
Sowerby Bridge	11,344	213	18·7	158	13·9	1·7	0·08	0·35	—	213
England and Wales	—	—	29·7	—	17·1	2·18	—	—	148	—
Do. do. 33 Largest Towns	10,846,971	339,115	30·7	208,534	18·9	2·86	—	—	167	—
BRIGHOUSE	22,960	547	23·8	360	15·67	1·5	1·74	3·5	141	114

Table III. — Deaths at Various Age Periods.

	0–1	1–5	5–15	15–25	25-65	65 & upw'ds	All Ages.
Jan.	5	3	–	1	12	9	30
Feb.	7	1	–	2	6	11	27
March	5	2	1	–	13	7	28
April	4	4	4	5	12	4	33
May	2	7	1	3	6	10	29
June	7	4	1	2	13	6	33
July	–	3	–	3	11	4	21
August	8	1	3	2	6	7	27
Sept.	7	3	–	2	9	7	28
Oct.	5	4	1	3	8	5	26
Nov.	12	6	–	–	13	3	34
Dec.	15	6	–	2	13	8	44
Total	77	44	11	25	122	81	360

TABLE IV.

MONTHLY BIRTHS, 1896.

	Males.	Females.	Illegitimate.	Rate.
January	17	14	—	15·9
February.....	33	22	—	29·9
March	19	24	3	21·0
April	30	18	—	25·4
May.....	19	26	—	23·0
June.....	30	28	3	30·7
July	16	22	3	19·5
August.....	17	21	—	19·5
September	16	19	—	18·5
October	15	21	2	18·46
November	36	31	2	35·5
December	26	27	4	28·18
Total	274	273	17	23·8

MONTHLY DEATHS, 1896.

	Males.	Females.	Total.	Uncertified.	Inquests.	Rate.
January	22	8	30	4	2	14·8
February.....	16	11	27	5	3	15·76
March.....	16	12	28	–	–	10·8
April	16	17	33	–	–	16·9
May.....	18	11	29	2	2	14·8
June.....	20	13	33	2	1	17·1
July	10	11	21	2	1	10·0
August.....	16	11	27	1	–	13·5
September	13	15	28	3	2	14·0
October	12	14	26	2	1	12·8
November	16	18	34	4	–	18·0
December	20	24	44	3	–	22·5
Total	195	165	360	28	12	15·67

Table V.—Shewing Monthly occurrence of the more prevalent Infectious Diseases.

	Scarlet Fever.	Typhoid or Continued Fever.	Erysipelas.
January	13	4	1
February	1	1	1
March	3	4	–
April	3	6	2
May	1	1	5
June	2	3	3
July	3	1	1
August	6	1	–
September ...	3	1	2
October	4	1	4
November ...	4	11	2
December ...	3	2	3
Total	46	36	24

STREET LIST.

PART 1.

Deaths from Various Diseases Classified according to Streets, Localities, or Districts.

Street or Place.	District.	Phthisis.	Diarrœhal Diseases.
Albion Street	Brighouse	2	
Brook Street	Rastrick	1	
Brighouse Fields	,,		1
Bonegate	Brighouse	1	
Briggate	,,	1	
Crowtrees Lane	Rastrick	1	
Commercial Street ...	Brighouse	1	
Church Lane	,,		1
Dewsbury & Elland Road ...	Rastrick	1	
Dyson Street	Brighouse	1	
Elland Upper Edge ...	Rastrick	1	
Firth Street, Thornhill Briggs ...	Brighouse	1	
Firth Street.	Rastrick	1	
Garden Road	Brighouse	1	
Gooder Lane	Rastrick	1	
Halifax Road	Hove Edge	1	
Healey Wood Terrace ...	Rastrick	1	
Hove Edge	Hove Edge	1	
John Street, Lane Head ...	Brighouse	1	1
Laverock Lane	Hove Edge		1
Lightcliffe Road	Brighouse	1	
Manley Street	,,	2	
Marion Street	,,	1	
New North Road	Rastrick	2	1
New Hey Road	,,	6	
Newlands	,,	1	
Odd-Fellow Street	Brighouse	1	
Old Lane	,,	1	
Slade Lane	Rastrick	1	1
Slead Syke	Hove Edge	1	
South Street	Brighouse	1	
Toothill Bank	Rastrick	2	
Tofts Grove	,,	1	
Waterloo Road	Brighouse	1	
Total		40	6

STREET LIST.

PART II.

New Cases of Infectious Sickness, arranged according to Streets, Localities, or Districts.

Street or Place.	District.	Scarlet Fever.	Typh'd or Continued Fever.	Diphtheria or Membranous Croup.	Erysipelas.
Anvil Street	Brighouse				1
Badger Hill	Rastrick				1
Back New Street	Brighouse		1		
Bonegate Road	,,	2			1
Bradford Road (Central) ...	,,				1
,, ,, (Thornhill Briggs)	,,	4			2
Bramston Street	Rastrick		1		
Brighouse Fields	,,		1	1	
Birds Royd	,,	2			
Brook Street, Elland Road ...	Brighouse				1
Brook Street	Rastrick				2
Camm Street	Brighouse	2		1	
Clifton Road	,,		1		
Church Lane	,,	1			1
Common	Rastrick		2		
Commercial Street ...	Brighouse	1			
Daisy Croft	,,				1
Elland Road	,,		1		
Firth House	Rastrick				1
Firth Street	,,		2		
George Street, Bridge End ...	,,				1
,, ,, Thornhill Briggs	Brighouse	1			
Gathorne Street	,,	1			
Garden Road	,,		1		
Gooder Lane	Rastrick		2		1
Grantham	,,		2		
Hardy Street	Brighouse		3		
Halifax Road	Hove Edge	7			1
Huddersfield Road (Central) ...	Brighouse				1
,, ,, ...	Rastrick			1	1
Industrial Street	Brighouse		4		
Laverock Lane	Hove Edge		3		
Lightcliffe Road	Brighouse	1			
Lillands Lane	Rastrick	2		1	1
Lower Green	Hove Edge			1	
Manley Street	Brighouse			1	
New Street	,,	2			1
New Hey Road	Rastrick	5	2		
New North Road	,,	1	1		1

STREET LIST, PART II.—Continued.

Street or Place.	District.	Scarlet Fever.	Typh'd or Continued Fever	Diphtheria or Membranous Croup.	Erysipelas.
Oddfellow Street	Brighouse	1			
Police Street	,,				2
Rayner's Road	,,	2			
Richard Street	,,	1			
Slead Syke	,,	7	5		
Spring Street	,,		1		
Sunny Vale	Hove Edge		1		
Tofts Grove	Rastrick		2		1
Toothill Bank	,,				1
Upper Lane	Hove Edge	3			
Total		46	36	6	24

APPENDIX II.

ANNUAL REPORT OF THE INSPECTOR OF NUISANCES.

R. MARSDEN.

BOROUGH OF BRIGHOUSE.

Report of the Inspector of Nuisances for the year ended December 31st, 1896.

To the Chairman and Members of the Sanitary Committee of the Brighouse Town Council.

GENTLEMEN,

I have the honour of presenting you with my fourth Annual Report on the operations of the Sanitary Department for the year 1896.

NUISANCES.

1895—No. of Cases left over	53	
1896—No. of Inspections	450	503
No. of Inspections where there were no Sanitary defects	19	
No. of cases abated during the year	435	454
No. in course of abatement		49

The number of cases left over at the end of 1895 and the number of inspections during 1896 may be classified as follows Viz :—

Cases			Unabated
19	..	No Sanitary defects	–
364	..	Defective drainage	41
25	..	,, ashpits	–
9	..	,, privies	4
27	..	Defective privy accommodation	2
12	..	,, water closets	–
2	..	Defective water supply to houses	–
3	..	Nuisances from Cess-pools	–
3	..	,, ,, dirty houses	–
3	..	,, ,, dirty privies	–
2	..	,, ,, disused wells in cellars ..	–
17	..	,, ,, offensive accumulation ..	–
7	..	,, ,, offensive middens	–
3	..	,, ,, over-crowding	–
1	..	,, ,, poultry kept in a cellar ..	1
5	..	,, ,, swine keeping	1
1	..	,, ,, stagnant water in cellar ..	–
503			49

Removal of Nuisances.

Nineteen cases where no sanitary defects were found are places inspected under the Infectious Diseases Notification Act.

Three-hundred and sixty-four cases of defective drainage, of which there remain unabated at the end of the year, 41.

Under this head the following works have been carried out :—

Bath Waste-pipes disconnected	3
Cellar drains repaired	3
,, ,, ventilated	2
Drain openings within buildings removed	27
House drains repaired	20
,, ,, trapped	10
,, ,, ventilated	14
Houses re-drained	92
Sink-pipes disconnected	174
,, new	22
,, trapped	28
,, repaired	2
	397

In all cases where there is a distance between the sewer and the houses, the owners are requested to fix an intercepting trap at the end of the drain nearest the sewer and carry a 4in. ventilating shaft above the eaves of the building, so as to secure through ventilation of the drain.

Where we find drain openings within the buildings, and the drain continued under the floor or floors, we insist on them being re-laid with iron pipes, with an air inlet on one side and an outlet on the other side of the building, and no drain inlets within the building.

In 25 cases of defective ashpits the following works have been carried out :—

Ashpit re-covered	1
,, doors, new	2
,, ,, repaired	2
Ashtubs, new and repaired	20
	25

Of nine cases of defective privies there still remain unabated four.

Only five very offensive closets have been converted to the sanitary pail system this year, a very small quantity compared with previous years. It is expected that when the Sewage Scheme is finished the tub system will be superseded by the more cleanly and economic waste water closet : this will account for the small amount altered.

Twenty-seven cases of defective privy accommodation, of which number there remain to be abated two.

Under this head the following alterations have been made:—

Converted to the pail system	5
Converted to the waste water system ...	17
New privies provided on the pail system ...	12
	34

Twelve cases where the water closets were in some way or other defective. The following alterations have been made, viz.:—

Flushing tanks receiving a supply of water from the domestic supply cistern have had the connection severed, and are now supplied direct from the mains	2
New flushing tanks provided	4
New water closet basins	5
Soil-pipes removed outside the building ...	4
	15

Two cases of defective water supply to houses. One beerhouse and two houses have been supplied from the Corporation mains.

Three nuisances from cesspools where the houses had no other way of drainage. Two of the cesspools have been entirely done away with; one the overflow drained off.

Three cases where the houses were dirty were cleaned on receiving a preliminary notice.

Three cases of dirty privies were cleaned on receipt of preliminary notice.

Two nuisances from disused wells found in the cellars. In all cases these have the offensive matter removed and the places filled in with new clay or soil.

Seventeen cases of offensive accumulation, mostly of fish, excreta, swill, decaying vegetables, and dust from a corn mill. In one case we removed during the night time 44 cart loads of such offensive matter.

Seven cases where cattle keepers had allowed their manure to accumulate and overflow into the yard, over footpaths, &c., removed on receipt of preliminary notice.

Three cases of overcrowding removed during the year.

One case where poultry is kept in the house. Unabated.

Five cases where swine have been kept so as to be a nuisance. One unabated.

One case where stagnant water was found in a cellar owing to a leaking service pipe.

Improvements have been carried out at Slade Lane, Badger Hill and Grantham, where a quantity of the houses have been re-drained and nearly all the existing drains connected to the new sewer.

Other improvements have been carried out at Back Bonegate, Park Row, Elland Road, Brook Street and Castle Hill.

No. of cases in which your instructions have been required, 10; or 2 per cent.; thus shewing an abatement of 98 per cent. of all the cases inspected, by the persuasion of your officials; as against 91 for the preceding year, and 85 per cent. for the year 1894.

NOTICES UNDER THE PUBLIC HEALTH ACT, 1875.

No. served under Sec. 36	1
,, ,, ,, Sec. 49	5
,, ,, ,, Sec. 62	2
,, ,, ,, Sec. 94 d	3
,, ,, ,, Sec. 94 g	2
,, ,, ,, Scc. 94 j	2
	15

TABIE SHOWING NUMBER OF VISITS.

On complaint of nuisance	89
,, abatement of ,, ...	710
,, notification of infectious diseases	111
,, Smoke abatement	55
Canal Bank	59
Cowsheds, milkshops, &c., ...	44
Disinfection of houses, schools, &c., ...	68
Law Cases	12
Lodging Hcuses	20
Over-crowding cases	4
Other inspections, visits, &c., ...	98
Private slaughterhouses	29
Public ,, ...	41
Sanitary Depot	114
Sale of Food and Drugs' Act	25
Sewage farm	10
Testing drains	11
Workshops	19
	1519

Number of Letters with respect to nuisances ... 464

Common Lodging Houses.—We have two in the district—one in Bradford Road which is very well kept, and the other in Commercial Street, which is not kept as we should like, although there is a decided improvement on previous years.

Smoke Abatement.—Although the maximum number of minutes in which chimneys are permitted to send out black smoke within the hour as been fixed at 10, yet behond issuing 13 preliminary and 2 statutory notices, nothing as yet been done, although the time allowed has been exceeded in many cases.

TABLE SHOWING THE NUMBER OF OBSERVATIONS AND THE LENGTH OF TIME IN WHICH DENSE AND MODERATE SMOKE WAS OMITTED.

No.	Dense.	Moderate	No.	Dense.	Moderate	No.	Dense.	Moderate
1	24½	10	18	9	10	35	–	–
2	11½	17	19	16	11	36	–	–
3	5	9	20	9½	6	37	10½	3
4	–	–	21	12	6	38	–	–
5	12½	7½	22	7	9	39	20½	10½
6	–	2	23	–	1	40	10	3½
7	1	3	24	2	6	41	6	6½
8	–	8	25	4½	2	42	21½	16½
9	5	4½	26	5	7	43	19½	–½
10	4	3	27	3	2	44	19	6
11	2	7	28	6½	3	45	36	12
12	21½	14	29	2	8½	46	2	2
13	8½	10½	30	4½	5	47	16	7½
14	5	–	31	1½	5½	48	6	5
15	–	–	32	11	6½	49	24	12
16	9	6	33	–½	4½	50	1	4
17	9	8	34	7½	6½			

The above is not the average of the district.

Private Slaughterhouses.—These have been periodically inspected and generally found satisfactory. Slaughtering is now carried on at three places.

Public Slaughterhouse.—This has been regularly inspected, and always found satisfactory.

Scavenging.—The pail system is the principal kind in the district. We have, however, some water closets and a few waste-water closets. For approximate number of each see Table C in Medical Officer of Health's report.

The collection of the pails is entrusted to our own men, but the team labour is by contract, and the arrangement acts very well.

The collection of ashes, nightsoil and domestic refuse is also entrusted to our own men, with team labour hired. By this system any complaint lodged at the office is attended to at once.

Particulars of Work done during the Year 1896.

COLLECTED.

	Ashtubs, &c.	Dry Ashpits.	Wet Ashpits.	Tubs.	Tanks.	Total.
1896	7219	4223	1788	127458	20	140708
1895	7937	3533	1529	115850	53	128902

DEPOSITED.

	Depôt Vans.	Cart Loads.	Brick Co.	Bentley & Smith.	Other places.	Total.
1896	7081	3904	926	375	2272	14558
1895	6425	4194	879	538	2170	14206

ACTUAL COST.

	Depot.			Tubs.			Nightsoil.			Sl'ghterh'se.			Total.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d
Team Labour	39	6	9	482	2	3	371	4	3	7	–	–	899	13	3
Manual ,,	216	10	1½	244	18	–½	129	2	–	67	10	–	657	18	2
Tipping	–	–	–	–	–	–	14	13	6	–	–	–	14	13	6
	255	16	10½	726	18	3½	514	19	9	74	10	–	1572	4	11
Less Manure Sold	146	6	10	–	–	–	9	1	–	–	–	–	155	7	10
	109	10	–½	726	18	3½	505	18	9	74	10	–	1416	17	1
1895	119	14	6	664	15	7	478	15	3	95	3	8	1358	9	–

Disinfection.—During the year 41 houses have been disinfected after infectious diseases, and the day schools on several occasions, viz.:—

Church Schools, Brighouse ...	5
,, ,, Rastrick ...	1
Longroyd	1
New Road	1
Queen Street	2
St. Andrew's	4
St. Joseph's	3
	17

Unsound Food.—The following articles of food have been condemned and, with the consent of the owner, destroyed, viz. :—

June 25th.—A quantity of green peas exposed for sale by a Bradford hawker.

July 11th.—A quantity of mushrooms exposed for sale on a stall in the fair ground.

August 10th.—Part of a beast belonging to Mr. T. Kerrod, which had been slaughtered at Mr. R. Crowther's private slaughterhouse on the Sunday.

September 10th.—A quantity of rabbits (28) which were not offered for sale, but surrendered as received from the wholesale dealer.

Sale of Food and Drugs Act, 1875.—Sale of Food and Drugs Act Amendment Act, 1879.—Margarine Act, 1887.—The following have been taken during the year, viz.: eight samples of new milk; three samples of butter.

The County Analyst certifies as follows :—

MILK.

No. 8, 9, & 14—Genuine.
No. 10—Fair quality.
No. 11—Milk not more than 88 parts.
Water not less than 12 parts.
No. 12 & 15—Suspiciously poor quality, being very deficient in fat, but not sufficiently bad to justify its positive condemnation.

No. 13—This sample contained the parts as under :—

Milk fat	2·45 per cent.
Solids, other than fat ..	8·05 per cent.
Total solids	10·50 per cent.

Normal milk contains not less than 3 per cent. of milk fat, and not less than 8·5 per cent. of solids other than fat.

BUTTER.

No. B.1, B.2 & B.3—Genuine.

LAW CASES.

The vendor of sample No. 11 was fined £1, and 18s. costs, in all £1 18s.

The vendor of sample No. 13 was fined 10s., and 18s. costs, in all £1 8s.

Dairies, Cowsheds, and Milkshops Order, 1885.—Number of persons on the register at the end of the year are :—

Cowkeepers, Dairymen, and Purveyors of Milk ...	2
Cowkeepers and Purveyors of Milk	31
Cowkeepers	19
Dairyman and Purveyor of Milk	1
Purveyors of Milk	33
	86

Among the purveyors of milk there are 22 living outside the Borough, thus leaving 64 places to be visited by your Inspector.

Factory and Workshops Acts, 1878—1895.—Nineteen workshops have been measured and calculated for cubic space, ventilation, &c.; some slight sanitary defects abated, and some rather extensive sanitary defects in course of abatement at the end of the year.

Canal Boats Acts, 1877 and 1884.—During the year I have inspected 50 canal boats using the Calder and Hebble Navigation Co.'s canal in this district.

On the whole the boats were in good repair, the cabins clean; especially so were our home boats, the masters in all cases being agreeable and lending what aid they could with respect to inspection.

Three of the number, however, did not conform in all respects to the regulations, but the defects were very quickly remedied when pointed out.

CANAL BOATS ACTS, 1877 and 1884.

STATISTICAL SUPPLEMENT to the (1896) Annual Report of the Brighouse Urban Sanitary Authority.

Have you Hospital Accommodation for any case of Infectious Disease met with on a Canal Boat in your Sanitary District?	Yes.
Is Inspector's remuneration inclusive with payment for other duties?	Yes.

50 Number of Boats Inspected in 1896
47 Number of Boats conforming to the Acts and Regulations
3 Number of Boats Infringing the Acts and Regulations

Total Number for which the Cabins were registered, 274½
Total Number occupying the Cabins 139
Details of Occupation: Male Adults 82
Female Adults 23
Children of School Age ... 18
Children under School Age... 16
— 139

Number of Cases met with.	Details showing Numbers Infringing in respect to—	Number of Cases Remedied.
	Registration...	—
	Notification of Change of Master...	—
1	Absence of Certificate	1
	Certificate not Identifying Owner with Boat ...	—
	Marking	—
1	Overcrowding	1
	Partition (Regn. 8, b. ii.)	—
	Females over 12 Improperly Occupying ...	—
	Cleanliness	—
	Painting	—
	Ventilation	—
	Dilapidation...	—
	Removal of Bilge Water	—
	Without Pump	—
	Refusal of Admittance to Inspector	—
1	No proper Water Vessel	1
	Without requisite Double Bulkheads	—
	Non-notification of Infectious Disease	—
	Number of Boats detained for Cleansing (not for I/D.)	—
3	Total Cases met with. Total Cases Remedied,	3

Number of Legal Proceedings taken ... ... None
Number of printed Notice Forms issued 3
Number of Notices attended to 3
Number still corresponding about... ... ... None

RALPH MARSDEN,
Inspector of Nuisances.