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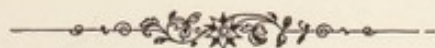
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Bromley Rural District Council.




ANNUAL REPORT
OF THE
MEDICAL OFFICER OF HEALTH,
FOR THE YEAR
1899,

BY
JAMES SCOTT TEW, M.D., D.P.H.

BROMLEY :

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ANNUAL REPORT ON THE HEALTH

OF THE

BROMLEY RURAL SANITARY DISTRICT,

IN

1899.

Census, 1881.		Census, 1891.	
No. of Acres ...	...31751	No. of Acres ...	...33129
Inhabited Houses ...	... 3901	Inhabited Houses ...	... 5025
Population ..	...20760	Population ...	...26852

The Population of the Bromley Rural District was estimated by the method adopted by the Registrar-General, to be **32,220** at the middle of 1899, showing an increase of 707 since the middle of 1898.

The number of registered births was 759, including 386 of males, and 373 of females, and giving a **Birth-rate of 23·3** per 1,000 of population, as compared with 21·8 in 1898, and 25·1 in 1897.

Four hundred and forty-four deaths were returned in the District, including 246 of males, and 198 of females. Of these 39 deaths occurred among non-residents. In addition to the 444 deaths, 21 occurred outside the district, among persons belonging thereto, viz : at the Bromley and Beckenham Joint Hospital, the Croydon Rural Isolation Hospital, and the Croydon Urban Isolation Hospital.

The **Death-rate** was **13·2** per 1,000 of population, as compared with 11·6 in the previous year, and 12·5 in 1897.

Of the total 444 deaths, 40 were caused by one or other of the seven principal Zymotic diseases, viz.: 10 by Diphtheria, 2 by Enteric Fever, 3 by Puerperal Fever, 7 by Measles, 5 by Whooping cough, and 13 by Diarrhœa.

To these 40 deaths from Zymotic diseases must be added 19 deaths from Diphtheria, and 2 from Typhoid Fever, which occurred outside the District among persons belonging thereto:

The **Zymotic Death Rate** was **1·8** per 1,000 of population, as compared with 1·5 in 1898, and 1·6 in 1897,

The **Infant Mortality**, *i.e.*, the number of deaths of infants, under one year of age per 1,000 registered births was **142**, as against 129 and 140 in the two previous years.

During the year 1899, the birth-rate throughout England and Wales was 29·3; the general death-rate 18·3; and the zymotic death-rate 2·2 per 1,000 of population.

The rate of mortality among infants under one year to each 1,000 registered births was 163.

A.—Notifiable Diseases.

Under the provisions of the Infectious Disease (Notification) Act, 1889, 330 cases were reported, being double the number of those reported in the previous year, which was 165.

They consisted of 64 cases of Scarlet Fever, 204 of Diphtheria, 19 of Enteric Fever, 3 of Puerperal Fever, and 40 of Erysipelas. No cases of Small-pox occurred during the year.

Scarlet Fever. The District was free from this disease during April, and the remaining months contributed to the total as follows:

January	...	...	...	12 cases.
February	...	...	...	5 "
March	...	...	...	6 "
May	...	...	...	3 "
June	...	...	...	2 "
July	...	...	...	7 "
August	...	...	...	7 "
September...	...	...	...	7 "
October	...	...	...	3 "
November...	...	...	...	7 "
December	...	...	...	5 "

Total 64 cases

Which exceeds the number of the previous year by 17.

Six parishes were entirely free from the disease throughout the year, viz.: Downe, Keston, Knockholt, Mottingham, North Cray, and St. Paul's Cray, and the remaining parishes added to the total as follows:—

Chelsfield ...	...	...	7 cases.
Chislehurst ...	...	...	26 „
Cudham ...	...	...	7 „
Farnborough ...	...	...	10 „
Foot's Cray ...	...	...	3 „
Hayes ...	...	...	2 „
Orpington ...	...	...	5 „
St. Mary Cray ...	...	...	3 „
West Wickham ...	...	...	1 case.

Total 64 cases.

The Disease was of a mild type and no deaths resulted from it.

The cases occurred at the following age-periods:—

1—5 years	5—15 years	15—25 years	25—65 years	
14	34	14	2	= 64 cases.

Diphtheria. This disease, which was prevalent throughout the year, caused a widespread epidemic towards the end of 1899, producing the formidable total of 204 cases in all.

They were reported in each month as follows:—

January ...	...	14 cases.
February ...	...	3 „
March ...	...	10 „
April ...	...	2 „
May ...	...	6 „
June ...	...	1 case.
July ...	...	5 cases.
August ...	...	15 „
September ...	...	37 „
October ...	...	45 „
November ...	...	39 „
December ...	...	27 „

Total 204 cases.

Three parishes were free from the disease, viz.: Downe, Keston, and Knockholt, and the remaining parishes contributed to the total as follows:—

Chelsfield	...	10 cases.
Chislehurst	...	86 „
Cudham...	...	6 „
Farnborough	...	3 „
Foot's Cray	...	46 „
Hayes	...	2 „
Mottingham	...	3 „
North Cray	...	13 „
Orpington	...	29 „
St. Mary Cray	...	3 „
St. Paul's Cray...		1 case.
West Wickham		1 case; and
		1 case at the Workhouse

Total 204 cases.

The greatest number occurred in Chislehurst (86), Foot's Cray (46), and Orpington (29).

It must be noted that these cases are arranged strictly as to *parishes*; that one part of Foot's Cray is in the parish of Chislehurst; also that Sidcup is partly in Chislehurst and partly in Foot's Cray; and that part of North Cray is close to and practically a part of Foot's Cray.

Up to the beginning of August comparatively few cases were reported, viz.: 41; and the epidemic may be considered to have commenced in August. It reached its height in October, when 45 cases were reported, which number fell to 27 during the last month of the year.

Special provisions were made to cope with the outbreak and the majority of cases were removed to an isolation hospital within a few hours of being notified.

As the Bromley and Beckenham Joint Hospital did not afford sufficient room to isolate all the cases, which had to be removed arrangements were made with the Croydon Urban and Rural Sanitary Authorities for treatment of Diphtheria patients in their Isolation Hospitals, and consequently 38 patients were removed to the Croydon Urban and 47 to the Croydon Rural Isolation Hospital.

Those patients treated at the Croydon Urban Hospital were removed from the following parishes:—

Chislehurst	...	...	17 cases.
Chelsfield	...	...	2 „
Foots Cray	...	...	7 „
Orpington	...	...	7 „
North Cray	...	...	3 „
St. Mary Cray	...	...	1 case.
St. Paul's Cray	...	..	1 „

Total 38 cases,

and those treated at the Croydon Rural Hospital were removed from the following parishes:—

Chislehurst	...	...	25 cases.
Foots Cray	...	...	16 „
North Cray	...	...	4 „
Mottingham	...	...	2 „

Total 47 cases.

At the Bromley and Beckenham Joint Hospital, 88 cases were treated, viz :

From Chelsfield	...	...	6 cases.
„ Chislehurst	..	...	30 „
„ Cudham	...	...	4 „
„ Hayes	...	...	2 „
„ Foot's Cray	...	...	15 „
„ Farnborough	...	...	3 „
„ Mottingham...	...	...	1 case.
„ Orpington	...	...	21 cases.
„ St. Mary Cray	...	...	2 „
„ North Cray	...	...	4 „

Total 88 cases.

Thus of the 204 notified cases of Diphtheria, 173 were removed to Isolation Hospitals, *i.e.*, 84 per cent.

In addition to almost immediate removal to Isolation Hospitals, extensive measures were taken to check the spread of the disease, and a great number of suspicious throats were examined bacteriologically. All the houses, where cases occurred, were inspected and disinfected as early as practical.

Many of the cases were of a virulent type, and 29 deaths occurred in all, 10 of which occurred at the patients' own homes, and 19 at the various Isolation Hospitals, viz.: 12 at the Bromley and Beckenham Joint Hospital, 4 at the Croydon Rural, and 3 at the Croydon Urban Isolation Hospital.

The Diphtheria death-rate was 0·9 per 1,000 of population, and the case mortality 14·1 per cent.

The deaths occurred as follows:—

		AGES.		
In January	4	4 years.	Cudham.	
		7 years.	Farnborough.	
		4 years.	Cudham.	
		7 months.	Orpington	(died at Bromley & Beckenham Joint Hospital).
In February	1	1½ yrs.	Orpington	do. do.
In March	2	2 years.	Chelsfield.	
		3 years.	Chislehurst.	do. do.
In April	1	14 years.	Chislehurst.	do. do.
In July	1	2½ years.	Orpington.	do. do.
In August	3	11 years.	Hayes	do. do.
		8 years.	Orpington	do. do.
		5 years.	Chislehurst	do. do.
In September	4	2 years.	North Cray.	
		5 years.	Foot's Cray.	
		5 years.	Foot's Cray	(at Bromley and Beckenham Joint Hospital).
		8 months.	North Cray	do. do.
In October	1	7 years.	Foot's Cray	do. do.
In November	6	8 years.	Chelsfield	do. do.
		9 years.	Chislehurst.	
		1 mnth.	Chislehurst.	
		3 years.	North Cray	(at Croydon Rural Hspt.)
		2 years.	Chislehurst	do. do.
		1½ yrs.	Chislehurst	do. do.
In December	5	13 years.	Chislehurst	do. do.
		4 years.	Chislehurst	(at Croydon Urban Hspt.)
		6 years.	Foot's Cray.	
		4 years.	Foot's Cray	do. do.
		3 years.	Foot's Cray	do. do.

The cases and deaths occurred at the following age-periods:—

0—1 year	1—5 years	5—15 years	15—25 years	25—65 years	
6	61	115	10	12	= 204 cases.
3	13	13			= 29 deaths.

One of the above 29 deaths is not included in the 204 cases, as it was notified and removed to the Hospital from Hayes at the end of the year, 1898, and this is taken into account in calculating the diphtheria death-rate and the case mortality.

It is, I think, unnecessary for me to go into further details of this epidemic, as it has already been dealt with exhaustively in seven special reports presented to your Council during the year, copies of which have also been supplied to the Local Government Board.

The disease has undoubtedly been kept up by personal infection and particularly by mild unrecognised cases (where a medical man has not been called) mixing with others.

The disease is then contracted by those who have a natural susceptibility for it, or whose throats are abnormal, *i.e.*, in cases of enlarged tonsils, adenoids, etc., and the infection in such persons is retained for lengthened periods.

It is most important, when diphtheria is prevalent, that all those, who have not thoroughly healthy throats, should have them properly treated, with a view of diminishing the risks of infection.

Several factors have aided in the spread and virulence of the cases, among which may be mentioned the thick and increasing population—many of the people being badly housed—rendering intercommunication easy; and it is also to be noted, that several of the worst and most rapidly fatal cases have occurred at insanitary houses on damp subsoil, and near the offensive emanations of the River Cray.

I am also convinced that the necessity for lengthy isolation, after the more acute stages of the disease are past, is not fully recognised, and it should be clearly understood, that a throat may be infectious for several weeks after the diphtheritic membrane or exudation has disappeared.

I consider that at least two bacteriological examinations of the throat material should be made before a patient leaves a hospital, or goes back to school; and that, at least, a day's suspension of all local treatment should be observed, before the specimen is taken from the throat for examination, if all means at our disposal are to be used in trying to stamp out the disease.

It is also necessary to note that, while a positive result in a bacteriological diagnosis is absolute and sufficient, a single negative result is by no means absolute for several reasons, *i.e.*, local treatment by antiseptic gargles, swabbing or sprays may have

fatally dealt with the bacillus in the part, from which the diagnostic swab was taken, or in abnormal throats the affected parts may be those behind enlarged tonsils, in follicles of the tonsils, etc., and may be missed; hence my insisting that *at least* two examinations are necessary, before a negative result can be considered as anything like absolutely reliable.

In at least three instances, cases of the following kind have come under my notice: a case of diphtheria had been notified, and at once removed to hospital; on visiting the house and on careful inquiry, a history was obtained that one of the other children, a week or two previous had suffered from a sore throat, but no doctor called in. On taking a swab from the child (now practically well) I have cultivated and found the bacillus in abundance in, as I say, at least three instances, and the connections of these examinations have been confirmed by other independent examinations, and, further, the bacilli isolated were proved to be of a virulent character and consequently capable of reproducing the disease.

It is not to be wondered at that success in reducing the prevalence of such an insidious disease as this is difficult to obtain, and while I do not think that the disease will be permanently and finally banished for perhaps some considerable time from this or other districts, yet, there is the best possible prospect of diminishing the virulence and the death-rate from it in the same manner as in the case of Scarlet Fever.

It must be remembered that Diphtheria cases have until the last few years been nursed at home in the great majority of cases, and frequently under very unfavourable circumstances, but it is now fairly well recognised that isolation is quite as necessary, if not more so, in Diphtheria as in Scarlet Fever, and it is a necessity that more hospital beds should be available for Diphtheria cases.

We have many means of combating the disease, most of which have been freely and promptly applied by your Council.

As further means in the future of providing against the invasion of the district by Diphtheria in an epidemic form, I would place first and foremost, the desirability for attempts for the better and more healthy housing of the poorer classes; it is not surprising that Diphtheria or any other infectious disease should exist and be retained in the many damp and insanitary houses which exist, and it is of regrettable interest to note the general unhealthiness and irritable condition of the throats of large numbers of children,

attending elementary schools, especially among those coming from the poorer localities, indicating the impure air which they are breathing at home—and in some instances at school.

The following simple directions were printed on cards, and distributed at each house, where diphtheria has occurred :

DIPHTHERIA.

Suggestions to be observed.

Although Diphtheria is liable to be contracted at any age, children under ten years of age are more liable to take it and have it severely.

Signs of the disease will appear usually in from two to four days after being in contact with a case, but the time may be extended to seven days (incubation period).

After recovery from Diphtheria the throat is infectious for several weeks after the worst stage of the disease is over.

During an epidemic the health of the children should be specially attended to. They should have regular plain nutritious food, be regularly bathed or washed, and have plenty of clean clothes, and out-door exercise.

There is no need to boil the drinking water obtained from the public supply.

If milk is kept in the house for many hours, or there is any reason to suspect its purity, the jug or can containing it should be placed in boiling water for ten minutes before use, or the milk can be boiled.

Let the children clean their teeth night and morning with a soft tooth brush and some antiseptic tooth powder.

After a case has been removed to the hospital the throats of the other children should be examined (preferable by a medical man) every day for at least a week.

If any of the following symptoms are noticed, medical advice should at once be sought :--

White, or greyish white patches on the inside of the throat ; lumps which can be felt on the outside of the throat (glands) ; offensive breath ; difficulty of breathing ; mucous or bloody discharge from the nose, or feverishness.

If there are bad smells in or around the house, leaking drains, defective closets, accumulations of refuse, or the inside of the house is damp, communicate with the Sanitary Inspector.

Penalties varying from 10/- to £20, can be imposed under the the following circumstances:—

Failing after notice properly to disinfect any room or house ; for entering a public conveyance while suffering from an infectious disease (such as diphtheria) without informing the owner ; for exposing an infectious person in a public place or conveyance ; for giving, lending, selling, or moving any infectious article without disinfection ; for letting any room or premises without disinfection ; for making false statements as to their being or having been six weeks previously an infected person in premises exposed for time, for failing to give notice of the existence of a case of infectious disease, in accordance with the Infectious Diseases (Notification) Act, 1889.

J. S. TEW, M.D., D.P.H.,

Medical Officer of Health.

Special thanks are due to the medical men practising in the neighbourhood, who not only notified the cases at the earliest possible time—often by telegram—but also in many cases took swabs for examinations of the poorer cases free of charge and assisted us in every possible way.

I have also to acknowledge the invaluable services rendered by your Inspector (Mr. Powell) who has done an immense amount of extra work during this epidemic in a manner deserving of the greatest praise. Fortunately, shortly before the epidemic commenced, your Council approved of the appointment of an Assistant Inspector, and Mr. Mills of Southampton was appointed and did excellent work up to the end of the year. Early in January of this year however, I regret to say, he has contracted the disease in the fulfilment of his duties, and has been laid up for several weeks.

Enteric Fever. Nineteen cases were notified, during the months of January 2, February 1, March 3, April 2, September 2, October 1, November 6 and December 2.

It will be seen that the District was entirely free from the disease during May, June, July, and August.

The cases occurred in the following parishes:—

Chelsfield...	...	1 case.
Chislehurst	...	5 cases.
Foot's Cray	...	5 „
Hayes	...	1 case.
Keston	...	1 „
Mottingham	...	1 „

Orpington	...	2 cases.
St. Mary Cray	...	1 case.
West Wickham	...	1 „
Workhouse	...	1 „

Total 19 cases.

Three of the cases ended fatally, viz.: the case notified at the Workhouse, that of a male, aged 24 years in February; the case notified from St. Mary Cray, that of a female aged 35 years, who died at the Bromley and Beckenham Joint Hospital, in April; and one of the cases notified from Foot's Cray, that of a male aged 42 years in November.

The cases and deaths occurred at the following age-periods:—

1—5 years	15—25 years	25—65 years	
1	4	14	= 19 cases.
	1	2	= 3 deaths.

In addition to the above 3 deaths, one occurred in the Bromley and Beckenham Joint Hospital in January, being that of a patient aged 39 years, who had been removed from Foot's Cray in the previous year.

Puerperal Fever. Three cases, all of which ended fatally, were notified, one in September, and 2 in November.

The first case occurred at Foot's Cray, and the second in the Union Workhouse, being that of a person belonging to the district.

The last case occurred in November, at Farnborough.

Erysipelas. Forty cases were reported one or more in each month of the year, but only one ended fatally, viz.: that of a male aged 70 years, at the Workhouse, in August.

The cases and death were notified at the following age-periods:—

1—5 years.	5—15 years.	15—25 years.	25—65 years	65 years and upwards.	
1	4	2	29	4	= 40 cases.
				1	= 1 death.

B.—Non-Notifiable Diseases.

Measles caused 2 deaths in May, 3 in June, 1 in July, and 1 in December, viz.: 4 at Chislehurst, 1 at Mottingham, and 1 at Downe, and the ages of the patients varied from 9 months to 5 years.

Whooping-cough was never very prevalent, only 5 deaths having occurred, 1 in February at Foot's Cray, and 4 at Chislehurst, in June and December; the ages of the patients varying from one month to 18 months.

Diarrhoea. The number of deaths from this disease fell from 19 in 1898 to 13 in 1899, The parishes chiefly affected were:—

Chislehurst	...	...	4 deaths.
Farnborough	...	...	1 death.
Foot's Cray	...	...	1 „
Keston	...	...	1 „
Orpington	...	...	5 deaths.
St. Paul's Cray	...	...	1 death.

With the exception of the last death, (at St. Paul's Cray) which was that of a female aged 68 years, all the patients were infants under one year of age.

Influenza was prevalent throughout the year, and caused 19 deaths:—

Chelsfield	...	...	1 death.
Chislehurst	...	...	5 deaths.
Cudham	...	...	1 death.
Down	...	...	3 deaths.
Hayes	...	...	1 death.
Keston	..	...	3 deaths.
Foot's Cray	...	...	1 death.
North Cray	...	...	1 „
St. Paul's Cray	..	...	2 deaths.
West Wickham	...	...	1 death.

Total 19 deaths.

The ages of the patients varied from 2 months to 82 years.

Isolation.—

Two hundred and thirty-one cases of infectious disease were removed to Isolation Hospitals, viz.:—

145	to the Bromley & Beckenham Joint Hospital.
48	„ Croydon Rural Hospital.
38	„ Croydon Urban Hospital.

Total 231 cases.

All the cases removed to the Croydon Urban Hospital were cases of Diphtheria, as were those removed to the Croydon Rural Hospital, with the exception of one, which was a case of Enteric Fever.

Of those removed to the Bromley and Beckenham Joint Hospital, 53 were cases of Scarlet Fever, 88 cases of Diphtheria, and 4 cases of Enteric Fever.

Up till September 2nd, all the cases removed were accommodated at the Bromley and Beckenham Joint Hospital.

The total number of cases were admitted to the various hospitals as follows :

January,	24 cases.	(11 Scarlet Fever, 12 Diphtheria, 1 Typhoid Fever).
February,	6 „	(4 Scarlet Fever, 2 Diphtheria).
March,	14 „	(5 Scarlet Fever, 8 Diphtheria, 1 Typhoid Fever).
April,	2 „	(Diphtheria).
May,	6 „	(Diphtheria).
June,	2 „	(Scarlet Fever).
July,	11 „	(5 Scarlet Fever, 6 Diphtheria).
August	20 „	(7 Scarlet Fever, 13 Diphtheria).
September,	39 „	(5 Scarlet Fever, 33 Diphtheria, 1 Enteric Fever).
October,	40 „	(3 Scarlet Fever, 36 Diphtheria, 1 Typhoid Fever).
November,	41 „	(6 Scarlet Fever, 35 Diphtheria).
December,	26 „	(4 Scarlet Fever, 21 Diphtheria, 1 Typhoid Fever).
	—	
Total	231 cases.	

Of those treated 111 were males and 120 females.

The ages varied from $2\frac{1}{2}$ months to 64 years.

The longest stay at the hospitals was 100 days; the shortest one day, and the average stay was 43 days.

Twenty-one deaths occurred at the hospitals, viz.: 14 at the Bromley and Beckenham Joint Hospital; 4 at the Croydon Rural and 3 at the Croydon Urban Hospitals.

Two of the 14 deaths at the Bromley and Beckenham Joint Hospital were those of persons, who had been notified and removed in the previous year, viz.: one of Diphtheria and one of Enteric Fever. The remaining 12 deaths were caused 11 by Diphtheria and one by Enteric Fever.

All the deaths which occurred at the Croydon Hospitals were caused by Diphtheria during the last quarter of the year.

Reports.—

During the year 1899, I have presented 18 reports to your Council on various subjects, viz. :—

- 5 on insanitary houses in various parts of the District.
- 7 on the outbreak of Diphtheria at Chislehurst, Orpington and the Crays.
- 1 on the River Cray.
- 1 on the brewery effluent at Green Street-Green.
- 1 on the Churchyard at Sidcup.
- 1 on the removal of a case of Scarlet Fever to Dartford.
- 1 on a dairy at Sidcup.
- 1 on the drainage at Green-Street-Green.

School Closures.—

The following Schools were closed on account of the prevalence of infectious disease :

- Chislehurst Road Board School, Orpington—January 2nd to January 23rd on account of Diphtheria.
- Wellington Road Board School, Orpington—January 2nd to January 23rd on account of Diphtheria.
- National School, Cudham—January 16th to January 30th on account of Diphtheria.
- Board School, Pratt's Bottom, Chelsfield—January 30th to February 10th on account of Diphtheria.
- Wesleyan School (Infants' Department), Chislehurst—April 28th to May 26th on account of Measles.
- Christ Church School, Chislehurst—June 12th to June 30th on account of Measles.
- Board School, Mottingham—June 19th to June 30th on account of Measles.
- Christ Church School, Prickend, West Chislehurst—June 14th to June 26th on account of Measles.
- Downe School—June 9th to June 26th on account of Measles.
- National School, Birkbeck Road, Sidcup—October 2nd to December 22nd on account of Diphtheria.
- National School, Foot's Cray—November 8th to December 22nd on account of Diphtheria.
- Board School, Farnborough—November 27th to December 22nd on account of Scarlet Fever.

National School, Prickend, West Chislehurst—December 7th to December 22nd on account of Diphtheria.

Hayes School—November 11th to November 20th on account of Scarlet Fever.

In connection with the above large number of school closures (in addition to exclusions) I have had numerous communications and interviews with School Managers, School Masters and others connected with Elementary Education, who, without exception have co-operated with me in a reasonable and courteous manner and afforded both myself and your Inspectors ready access to inspect school premises.

You may be aware that, when a case of infectious disease is notified in a family in which there are children of School age, a notice is sent to the Head Teacher of the particular School, indicating the fact. If the patient is a child actually attending the School, and is removed to the Hospital, no other children are allowed to attend from that house, until the rooms have been disinfected, and a time—well beyond the incubation period of the particular disease—has elapsed, to render it safe for the child or children to resume their attendance at School. A second notice is then sent, indicating the date on which, as far as we can tell, it will be safe to return.

If a patient is nursed at home, no children are allowed from the infected house to attend School until the patient has thoroughly recovered and the house has been disinfected.

The non-notifiable, principal Zymotic diseases—Whooping-cough, Measles and Zymotic Diarrhoea—cannot, of course, be dealt with in exactly the same way, but have to be regulated on more general principles; still, as far as possible, all children suffering from Measles and Whooping-cough, and those in homes, where cases exist, are excluded from school attendance for a reasonable time.

Inquiries. —

On January 17th, I attended a Local Government Board Inquiry, held by Colonel Hepper, at the Public Hall, Sidcup, respecting the acquisition of land at a cost of £1500, for the purpose of buying and laying out a recreation ground. No opposition was offered. The ground was afterwards viewed by the Inspector, Members of the Foot's Cray Parish Council, your Surveyor (Mr. Winter), your Inspector (Mr. Powell), and myself.

Insanitary Dwellings.—

Probably the main feature of this year's sanitary work is the large amount of insanitary houses, which have been inspected and dealt with and new drainage been laid.

I regret to say that overcrowding in many of the more thickly populated parts of your District is very common, and most difficult to deal with, as cottages are not to be procured at a reasonable rent, and over and over again I am meeting with cases, where people have to pay more than one-fourth of the family earnings in rent for most inferior accommodation.

Where property has been neglected for years and next to nothing spent in necessary repairs, and your Council steps in and compels the owners to re-drain and improve the insanitary surroundings, the rents are in many cases immediately raised—not in proportion even to the amount expended in repairs and drainage, but to an extent far beyond this.

Again rents are raised for water having been supplied, also in many cases far beyond its cost, and the cost of laying on, and I can name cases where rents have also been raised, on account of the provision of an ordinary moveable sanitary dustbin.

With these, and innumerable other facts which I could lay before you, it will be a matter for your careful consideration, whether it is not necessary to provide more decent accommodation under the Housing of the Working Classes Act, as private enterprise has so far totally failed to provide necessary cottages, at anything like reasonable rentals.

It is undoubtedly a fact, that the high mortality which occurs among the sick poor, nursed at home, particularly in such diseases as Measles, Whooping-cough and the accompanying respiratory diseases, are to a great extent, due to over-crowding and the consequent impurity of the house air.

My special reports during the past year will show many of the defective conditions found, and the field for further work in this direction in the District is indefinitely large.

River Cray.—

So far dealing with the bad condition of this river has remained in abeyance. I have, however, kept the matter under observation, and on January 5th inspected the river from Orpington Ponds nearly to Bexley. I made an inspection of all the Mill heads on July 4th, on August 15th, and again in November.

I consider that action in regard to this river should not be delayed.

Manure Nuisances.—

In my Report for last year, I dwelt on the manure nuisance at Orpington Station; this still exists to nearly the same extent.

Sidcup Churchyard.—

On September 11th, and on four subsequent occasions, I inspected the above churchyard, in connection with the removal of bodies, which became necessary on account of the enlargement of the Church.

I consulted with the Vicar, who concurred in the methods which I proposed to adopt in the removals, and provided every means by which under the superintendence of Mr. Winter and Mr. Powell (who devoted a considerable time to the matter) the bodies were re-buried in a decent and sanitary manner.

In concluding this report, I must refer with deep regret to the loss of our esteemed Chairman, whose fairness and consideration on all occasions were recognised and appreciated by none more than by the Sanitary Officials of this Council.

The Reports by Mr. Powell and Mr. Dunlop, dealing with the large amount of work carried out during the year, and the customary tables and vital statistics are appended,

I have the honour to be,

Gentlemen,

Your obedient servant

JAMES SCOTT TEW.

March 27th, 1900.

BROMLEY RURAL DISTRICT COUNCIL.

*To the Chairman and Members of the
BROMLEY RURAL DISTRICT COUNCIL.*

GENTLEMEN,

I have the honour to present to you my Annual Report for 1899.

The number of visits made in the several parishes, is as follows :—

Chelsfield, 4; Chislehurst, 198; Cudham, 8; Down, 1; Farnborough, 4; Foot's Cray, 140; Hayes, 1; Keston, 1; Knockholt, 1; Mottingham, 35; North Cray, 37; Orpington, 135; St. Mary Cray, 81; St. Paul's Cray, 68; West Wickham, 4.

Complaints.—Sixty-nine complaints were received and investigated. Of these, 24 related to accumulations of house refuse; 14 to defective drainage; 2 to damp houses; 7 to smell from sewer gratings; 11 to offensive accumulations; 3 to cesspools overflowing; 3 to smoke nuisances; 2 to fish-frying nuisance; 2 to water supply; and 1 to animals kept in a filthy condition.

Water Supply. Fifty-nine houses have been supplied with water from the main.

Infectious Disease. Two hundred and sixty-four cases of Infectious Disease were dealt with, viz.: 184 cases of Diphtheria; 34 of Scarlet Fever; 31 of Erysipelas; 14 of Typhoid Fever; and 1 of Puerperal Fever.

The outbreak of Diphtheria continued more or less throughout the year and caused a good deal of anxiety and extra work.

In addition to working very frequently late at night, 19 Sundays were also taken up dealing with this disease, and had not your Council granted me an Assistant in August last, I am afraid matters would have been still worse.

Additional work had also to be undertaken in arranging for the return home of the patients from the Croydon Borough and Croydon Rural Infectious Hospitals, and the parents appreciated very much the arrangements made by Mr. Mullen.

It was found necessary to fumigate 203 houses, and I am glad to say that the Owners readily assisted by cleansing the rooms as soon as possible.

The fumigation was carried out with liquified Sulphur Dioxide, the clothing, etc., being disinfected with a solution of Perchloride of Mercury.

Several applications were made to have the bedding stored, but they could not be acceded to, owing to the absence of a suitable apparatus.

Drainage and Drain Testing.—The drains of 146 premises have been examined and tested, and with the exception of one case, it was found necessary to re-construct the same.

The supervision of the drains, whilst under re-construction, has been exceptionally heavy, and as your Council are aware, a good deal of trouble was caused by workmen faking the joints of the drains.

I am glad to say that the Owners still fall in with the view of providing a large number of Inspection Chambers to the drains, and this will no doubt assist them very materially in removing any obstruction that may occur, and do away with the usual tapping of pipes, which, to say the least, is a dangerous practice.

The work in connection with the 29 premises outstanding in my last Report, has been completed.

The drainage to a further 89 premises has been re-constructed during the year, and at 38 other premises the work of re-construction is well in hand.

The drainage to 19 other premises is expected to commence at once.

The manner in which the 118 premises have been dealt with, is as follows :—

113 premises were re-drained by Verbal Notice, or by corresponding with the Owners, and

5 by Statutory Notice.

Insufficient Water-Closets.—Flushing cisterns with water laid on thereto, new soil-pans and traps, have been provided to 114 houses, and similar work is being carried out at 33 other premises.

Insufficient Ash-pits.—One hundred and ninety-four houses have been provided with moveable receptacles.

Common Lodging-houses, Slaughter-houses, Bake-houses, Cow-sheds, Milk-shops and Dairies.—One hundred and seventy-eight visits have been paid to these premises during the year.

White-washing and cleansing was not carried out as often as it should be, owing to the absence of Regulations and Bye-laws, and I hope your Council will put these in force as soon as possible.

The question of the registration and Licensing of Slaughter-houses is also necessary, and I hope to be able to report on this matter early in the coming year.

Factory and Workshops Act.—

Owing to the prevalence of so much Infectious Disease in the District, the work of inspecting the Workshops has been interfered with, and only 10 Laundries and 6 Dressmaking Establishments have been inspected. Several of these have been materially improved.

Bye-laws. Hop, Fruit, and Vegetable Pickers.—

I, on several occasions inspected the Temporary Shelters in my District, and bearing in mind the unfavourable Reports from time to time submitted to your Council on this matter, it is hoped that the Owners of these shelters will at once take the necessary steps to bring them up to the requirements of the Bye-laws. Still, a good many improvements were carried out, viz.:—New Cooking-houses provided, Extra Privy accommodation, Ventilation, Cleansing, Improvement to the Water Supply, and on one Farm, 24 new iron Buildings were erected.

River Cray.—

With the exception of the Orpington Pond and Mr. Hodson's Mill Head being cleaned out, nothing has been done to abate the nuisance.

Houses unfit for Human Habitation.—

It has again been found necessary to bring under the notice of your Medical Officer of Health, several houses unfit for human habitation.

I regret to say that a good deal of overcrowding exists in my District, and although a large number of houses have been built, the rents are so high, that it has done but little to abate this evil.

I hope to be able in the coming year to give your Council particulars of the overcrowding in some of the small houses, and I trust that you may see your way clear to do something under the Housing of the Working Classes Act, 1890.

I beg to thank your Council for providing me with an Assistant, and although the assistance came somewhat late in the year, it has proved of great help to me in dealing with the large amount of

Infectious Disease, and the many sanitary matters previously referred to in my Report, and more especially with the large increase of clerical work.

Summary of Work Done.

Number of complaints received and investigated	...	...	69
Nuisances discovered	..	...	211
Nuisances abated without report...	...	...	131
Nuisances abated after report	...	...	10
Preliminary notices served	...	...	17
Legal notices served	...	...	20
Notices served dealing with insufficient waterclosets	...	...	43
" " " ashpits	...	...	89
Number of letters written, reports made, school notices sent, &c.	...	...	1727

Character of Work Done.

Houses cleansed and generally repaired...	...	...	38
Cowsheds, slaughter-houses and bake-houses cleansed	...	...	53
Overcrowding abated	...	...	9
Houses underpinned and damp-proof courses inserted ..	...	...
Ventilation of houses improved	...	...	4
Defective roofs and gutters repaired	...	...	14
Indoor soil pipes abolished, and new ones provided outside and ventilated	...	...	2
D traps abolished	...	...	5
Privies or earthclosets converted into waterclosets	...	...	1
Privies constructed with small removeable receptacles or converted into earthclosets	...	...	2
Bath, lavatory, and sink waste pipes disconnected from drains and caused to discharge over gully traps	...	...	4
Bell traps abolished and gully traps substituted	...	...	49
Houses supplied with water from main	...	...	59
Dustbins provided	...	...	194
Water laid on to waterclosets	...	...	114
Cesspools cleansed...	...	...	7
Cesspools abolished	...	...	5
Cesspool drainage abolished and premises connected to sewer	...	...	4
Privies cleansed	...	...	12
Houses at which drains were examined and tested	...	...	146
Houses at which drains were found defective	...	...	145
Houses at which drains were re-constructed or new ones provided	...	...	118

Houses at which drains were cleansed, ventilated, trapped and repaired	...	...	...	...	...	...	...	30
Number of tests made in course of work under the two previous headings	..	...	...	..	...	...	...	236
Urinals clansed and repaired	...	...	...	...	...	...	...	2
Offensive accumulations removed	...	...	...	...	...	...	...	16
Premises from which animals, improperly kept were removed								3
Paving of piggeries repaired	...	...	...	...	...	...	...	4
Infected houses fumigated and cleansed...	...	...	...	...	...	...	...	203
New waterclosets provided	...	...	...	...	...	...	...	25
New wash-houses provided	...	...	...	...	...	...	...	2
Back yards paved	...	...	...	...	...	...	...	23

I have the honour to remain,

Gentlemen,

Your obedient servant,

WILLIAM GEORGE POWELL,

(*Assoc. & Cert. Sanitary Institute*),

Inspector of Nuisances.

BROMLEY RURAL DISTRICT COUNCIL.

NO. 2 DISTRICT.

Office of Sanitary Inspector,
 Jackson's Road,
 Bromley Common,
 March 27th, 1900.

*To the Chairman and Members of the
 BROMLEY RURAL DISTRICT COUNCIL.*

GENTLEMEN,

I have the honour to present to you my Second Annual Report from January 1st to December 31st, 1899.

The number of inspections made in the several Parishes in my District during this period were as follows:

Chelsfield 60; Cudham 50; Downe 42; Farnborough 76; Hayes 40; Keston 44; Knockholt 54; and West Wickham 82.

Complaints.—80 complaints have been received and investigated; of these, 30 related to cesspools, 20 to defective drainage, 10 to offensive accumulations, 8 to offensive urinals, 6 to insanitary dwellings, and 6 to overcrowding.

Infectious Disease.—Sixty-seven cases of infectious disease have been notified during the year, namely:—Scarlet Fever 28; Diphtheria 22; Erysipelas 11; Typhoid Fever 3; Puerperal Fever 2; and Enteric Fever 1.

Fifty-four houses were fumigated with liquid sulphur dioxide, the clothing, etc., was disinfected with a solution of perchloride of mercury.

Last November five cases of Scarlet Fever occurred in Farnborough through the carelessness of some parents in sending a child to the Board Schools, whilst suffering from the disease.

Accumulations of Offensive Refuse :—

No. of cases of removal on notice...	30
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Animals kept as to be a Nuisance :—

No. of cases of removal on notice...	6
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Clerical Work :—

No. of official letters written	573
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West Wickham Sanitation.—

I beg most respectfully to draw your Council's attention to the existing insanitary condition of the various parts of the Parish.

It is not necessary for me to go into details, as the facts, together with the difficulties attending the case have already come under your observation.

I trust, however, that the proposed sewerage and also the adoption of the Scavenging Bye-laws relative to the thickly populated parts of this parish will receive your Council's kind consideration at an early date.

I have the honour to remain,

Gentlemen,

Your obedient servant.

ANDREW DUNLOP,

Sanitary Inspector.

TABLE I.

The number of deaths from all causes, and from the seven principal Zymotic Diseases with their Death-rates; the principal causes of Death, and the Infant Mortality in the Bromley Rural District, in each Quarter of 1899.

Quarters.	Total Deaths.	Death-rate per 1000.	Deaths from 7 principal Zymotics.	Zymotic Death-rate.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Measles.	Whooping-cough.	Diarrhoea.	Rheumatic Fever.	Phthisis.	Bronchitis.	Heart Disease.	Influenza.	Injuries.	All other Diseases.	Deaths of Infants under 1 year per 1000 births.
1st.	98	11.2	6	1.6	..	4	1	..	..	..	..	1	..	2	7	13	15	6	..	49	106
2nd.	89	10.1	6	0.9	..	..	..	..	..	..	5	1	..	..	6	8	11	6	1	51	88
3rd.	130	15.8	18	2.8	..	3	..	1	..	1	1	..	13	1	7	5	10	..	2	86	238
4th.	127	15.3	10	2.3	..	3	1	2	..	..	1	3	..	1	7	16	15	7	3	68	123
Total	444	13.2	40	1.8	..	10	2	3	..	1	7	5	13	4	27	42	51	19	6	254	142

TABLE II.

Deaths from Zymotic Diseases during the past ten years, and in 1899.

Zymotic Diseases.	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	Average of 10 years.	1899
Small-pox...	...	...	...	1	...	...	...	...	...	...	0.1	...
Scarlet Fever	2	...	...	1	3	2	2	2	3	...	1.5	...
Diphtheria	14	6	5	9	16	9	4	5	6	14	8.8	10
Fevers ...	1	2	1	2	1	6	...	2	1	3	1.9	5
Measles ...	1	8	8	2	7	1	3	14	11	5	6.0	7
Whooping-cough...	5	15	14	2	10	7	5	3	21	7	8.9	5
Diarrhoea ...	9	2	1	6	9	6	12	8	9	19	8.1	13
Total 7 Zymotics	32	33	29	23	46	31	26	34	51	48	35.3	40
Other Zymotics ...	7	8	6	26	22	11	15	6	8	10	11.9	20
Totals ...	39	41	35	49	68	52	41	40	59	58	47.2	60

TABLE III.

The number of deaths from all causes, and from the seven principal Zymotic Diseases in the Parishes of the Bromley Rural District in 1899.

The number of deaths from all causes, and from the seven principal Zymotics, include in each parish those outside the parish among persons belonging thereto, and the parishes are ranged in order of their general death-rates.

Parishes.	Population Census, 1891.	Total Deaths.	Death-rate per 1,000.	Deaths from seven principal Zymotics.	Zymotic Death-rate
Downe	581	5	6.7	1	1.3
West Wickham	1262	10	7.5	0	0.0
Hayes	804	9	9.0	1*	0.9
Keston	746	9	10.8	0	0.0
Orpington	4099	44	11.7	5	1.8
Foot's Cray	3487	50	11.9	6	1.9
St. Mary Cray	1988	23	12.8	1*	0.4
Chislehurst	6557	92	13.7	15	2.8
Knockholt	872	11	14.1	0	0.0
Cudham	1103	14	14.4	2	1.6
Mottingham	1037	20	14.8	1	0.7
Chelsfield	1122	19	16.4	1	1.4
Farnborough	1627	21	16.7	2	1.0
St. Paul's Cray	1028	24	18.1	0	0.0

* Died outside District.

