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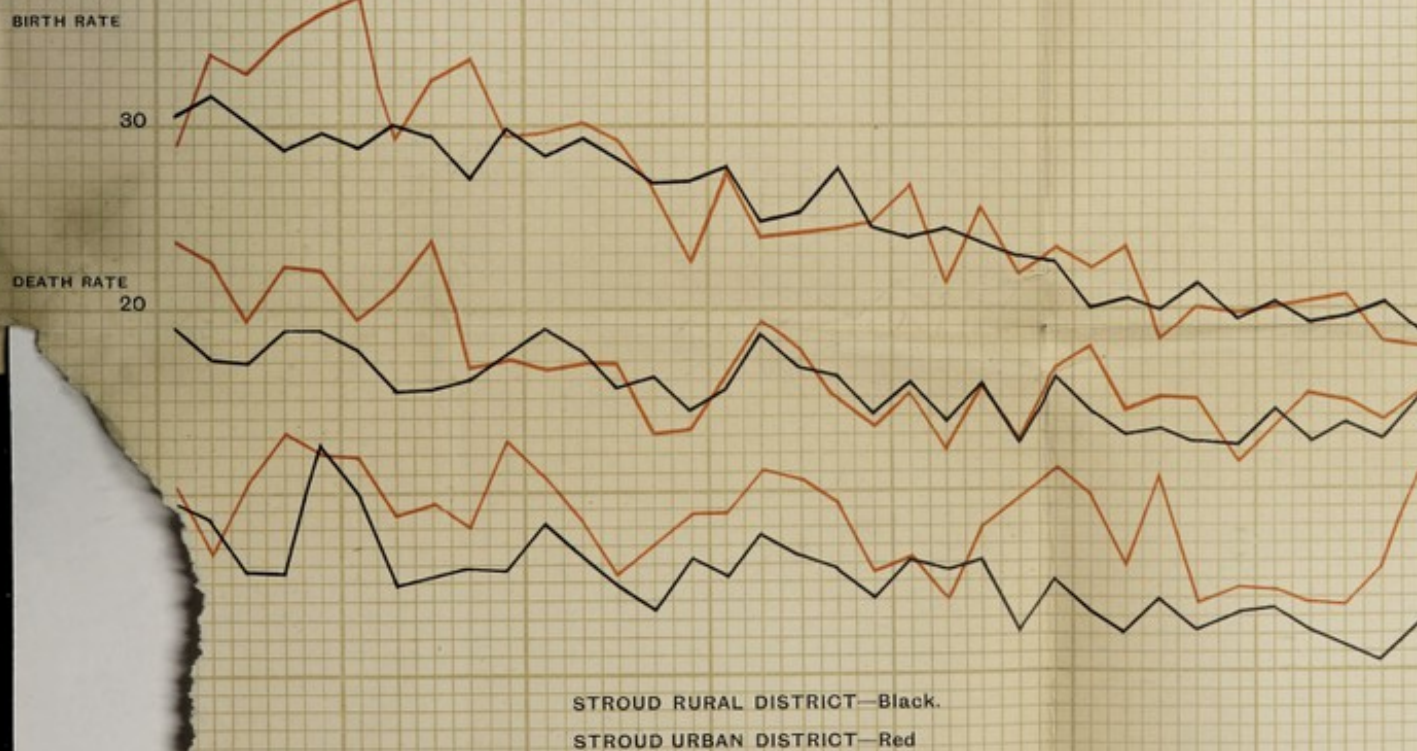
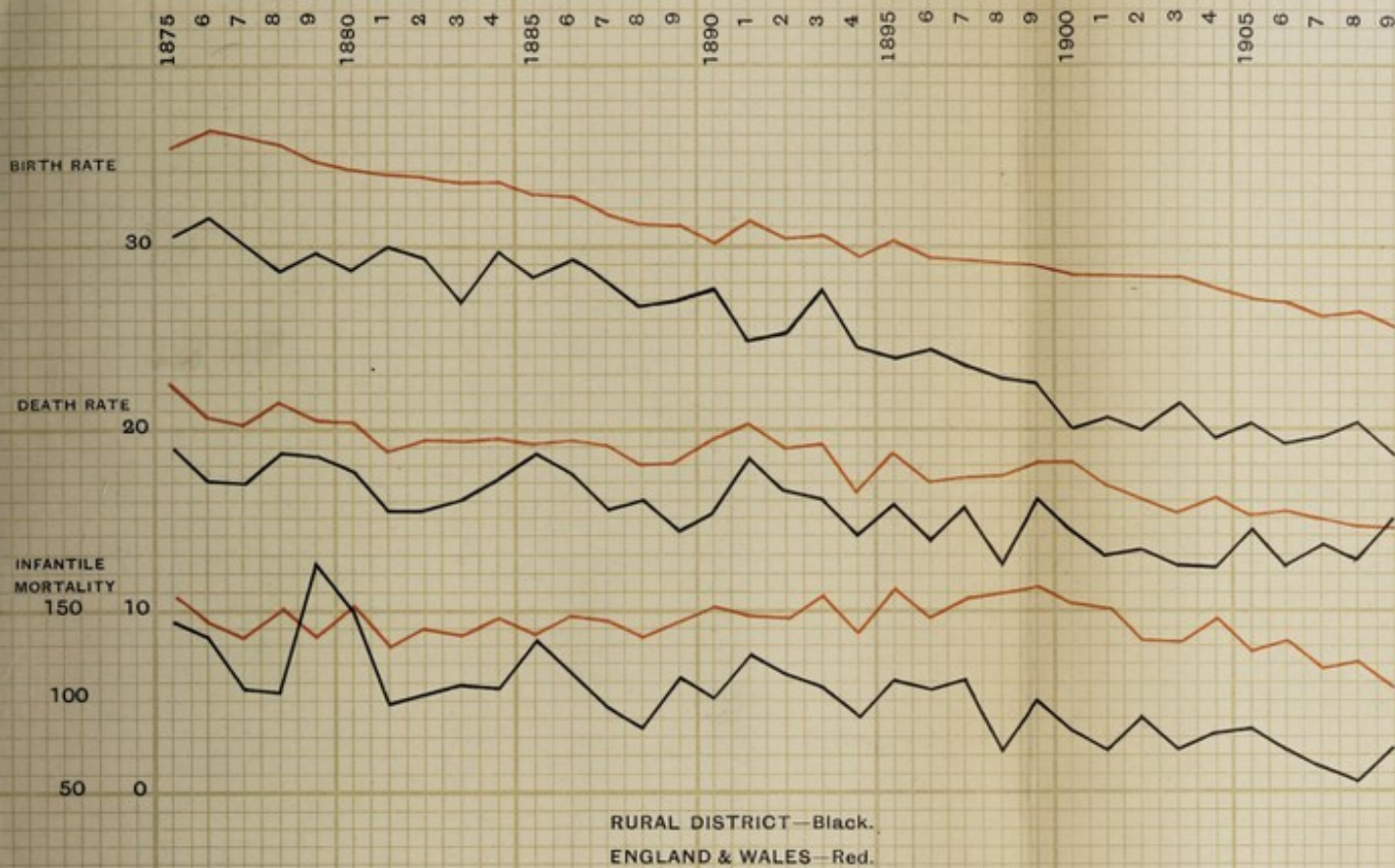
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Stroud Rural District.

BIRTH RATES, DEATH RATES & INFANTILE MORTALITY.



STROUD RURAL DISTRICT COUNCIL.

STROUD, GLOS.,

26th January, 1910.

REPORT FOR THE YEAR ENDING 31st DECEMBER, 1909.

To the Chairman and Members
Of the Stroud Rural District Council.

GENTLEMEN,

I present herewith the 36th Annual Report of the Medical Officer of Health for this District. This being my 10th Report I have mentioned under the various headings the chief events of previous years to show the progress that has been made.

The vital statistics for 1909 are not so favourable as they have been in more recent years but it would not appear that special importance is to be attached to this inasmuch as the great excess of deaths occurred at ages over 65 years from affections which possibly have relation to the inclement weather which prevailed throughout the greater part of the year, and as the infantile mortality is still satisfactorily low even though it might well be reduced.

There was no excessive prevalence of notifiable infectious disease though small outbreaks of scarlet fever and diphtheria occurred in a few parishes: the 10 cases of pulmonary tuberculosis were the first notified under the Public Health (Tuberculosis) Regulations, 1908.

The connections with the various systems of sewers are being steadily increased: the number of houses connected at Painswick (213) shows the activity which has characterised the work in this parish. The most important advance with respect to water supply is the extension of the mains of the Stroud Water Company to Horsley. Attention has been drawn to the necessity of systematic scavenging in the more populous places which is particularly required in Rodborough and Painswick.

Full reference is made in the course of the Report to one of the most important Acts affecting Public Health which has been passed in recent years, namely the Housing and Town Planning Act, 1909.

I have the honour to remain, Gentlemen,

Your obedient Servant,

J. M. MARTIN,

Medical Officer of Health.

General.

The general characters of the district have been given fully in previous reports. It is comparatively a densely populated rural district, with several centres; the inhabitants are engaged in the numerous industries which have gradually arisen and which include a variety of manufactures.

Housing.

On the whole the housing of the working classes in this district is of a good and substantial character, probably rather above than below the average, but with lapse of time some houses inevitably deteriorate and do not receive that attention from owners necessary to maintain them in a satisfactory state; in other cases, defective conditions are largely due to careless tenants, a number of whom are always to be found in any community. During the past ten years it has been found necessary to condemn only twenty houses as unfit for human habitation; none were condemned in 1909, but 16 notices were served on occupiers to cleanse houses during the year, and 11 cases of overcrowding were dealt with.

Up to the end of 1909, the most important measure dealing with the housing question was the Housing of the Working Classes Act, 1890, under which procedure was somewhat complicated: this Act was amended in 1900 and 1903 and proceedings were simplified. The Housing and Town Planning Act of 1909 consolidates the three previous Acts and places greater power in the hands of District Councils. In a report which I presented to the Council on the 17th December I gave a short summary of the Act which has since been supplemented by a full memorandum from the Local Government Board. The Board draw special attention to the provisions of the Act requiring inspection of dwelling houses in the district (as under the Act of 1890) and the further duty of complying with regulations and keeping such records as may be described by the Board. Houses unfit for human habitation can be dealt with under section 17 of the Act of 1909, but the Council now have power to make a closing order without applying to the magistrates. On the other hand, the Board recommend that action shall generally be taken under section 15 which requires landlords to maintain inhabited houses (under a rental of £16 a year) reasonably fit for habitation and gives District Councils special powers for securing this end; if the landlord does not comply with the requirements of the Council, and does not give notice of his intention to close the house, the Council can do the work required to make the house habitable and can recover the cost from the landlord.

Table A., 1909.

Houses Built and Plans Approved.

	Houses Built (5 years) 1904—1908.	1909.		
		Completed.	In course of construction.	Plans passed.
Bisley	4	0	0	0
Chalford	5	0	0	0
Miserden	2	0	0	0
Horsley	0	1	0	1
Minchinhampton	14	2	1	3
Painswick	9	5	3	8
Cranham	0	0	1	1
Pitchcombe	3	0	0	0
Rodborough	46	14	0	6
King's Stanley	9	0	1	1
Woodchester	4	0	1	1
Stonehouse	23	2	4	6
Cainscross	6	0	0	5
Leonard Stanley	2	0	0	0
Randwick	2	0	0	0
Thrupp	2	0	0	0
Whiteshill	4	0	0	2
Stroud R.D.	135	24	11	34

Plans were also approved for:—

Additions to Houses	11
Institute	1
Lavatories, Water Closets	15
Mills	2
School	1
	30

The number of water certificates granted for the occupation of new houses during the past nine years is 182 and 14 in 1909, and the number of new houses erected since the bye laws came into force (9th November, 1903) is 159; the number of houses erected in each parish since 1903 and the numbers in 1909, together with those in course of erection and the numbers of plans submitted are given in Table A. for which I am indebted to Mr. J. E. Haynes, C.E., the Surveyor to the Council. The parishes in which building has been most active are Rodborough, Stonehouse, Minchinhampton and Painswick.

There does not appear to be deficiency of accommodation for the working classes in any part of the district.

WATER SUPPLY.

Up to 1875 no organised attempt appears to have been made to provide any public supply of water and the district was dependent on the numerous springs on the hillsides and on wells as described in previous reports. In that year the Stroud Water Company was formed and obtained an Act of Parliament to supply the greater part of the area of the Stroud

Union; nothing apparently was done and the powers lapsed. In 1882 the present Stroud Water Company was formed and another Act obtained; a well, with headings, was sunk in the Chalford Valley above the station and all the water is pumped, after softening and settling in tanks at the pumping works, to a reservoir on Minchinhampton Common. The low lying district is supplied through a reducing valve at Brimscombe Bridge. The mains were slowly extended and a gradually increasing area was supplied with water. In recent years the Company was re-constructed and the extension of the mains has proceeded more rapidly; in 1905 the mains were carried to Woodchester and in 1906 and 1907 a new 8-inch main was laid across the Common from the Reservoir to the Bear Inn and extended as a 4-inch main by way of Dudbridge, Cashes Green and Whiteshill for the supply of Painswick where a reservoir of 1,000,000 gallons was constructed. In dry seasons the supply of water at Chalford was insufficient for the district especially as the storage capacity of the original reservoir was small (only 1,000,000 gallons); during 1908-9 the Company increased their resources by acquiring the right to take 200,000 gallons a day from the springs at Spring Mill, Chalford, and by constructing a 5,000,000 gallon reservoir (finished December, 1909) in the Black Quarry on Minchinhampton Common, making a total storage of 7,000,000 gallons. Their area of supply includes 15 of the 17 parishes in this district, the Nailsworth Urban District and the parish of Eastington in the Wheatenhurst Rural District; in addition, the Stroud Urban District Council has a right to take water in bulk from the Company's mains. Excluding the Stroud Urban District, the number of houses (Census 1901) in the area of supply is 8,219 containing a population of about 37,000; at 15 gallons per head per day the daily consumption would be 370,000 gallons, so that the above storage represents about $12\frac{1}{2}$ day's supply for the total population (excluding Stroud).

At the end of 1901, 1596 of the 7064 houses in the Stroud Rural District (excluding Miserden and Cranham which are not within the area of supply) and 2044 of the total 8219 houses in the area of the Company were supplied: in the seven years ending 1908, 599 further houses in the Stroud Rural District and 763 in the whole area have been connected, making a total number of connections of 2195 and 2807 respectively, *i.e.* 31.1% of the houses in the Stroud Rural District and 34.15% in the area. At this rate, the total storage capacity for present purposes would appear to be about 35 days' supply, and should obviate any shortness of supply in the future.

Up to the end of 1904 the mains of the Water Company were available in only 8 of the 15 parishes in their area: after repeated applications by the Rural District Council, the mains were extended to Woodchester in 1905, to Whiteshill and Painswick in 1907, and to Horsley in 1909. The remaining three parishes in the area still not supplied by the Company are Bisley, Pitchcombe and Randwick.

Greater advantage of the public supply is taken year by year, the number of new connections having increased steadily from 48 in 1903 to 124 in 1908 and 100 in 1909.

The detailed numbers of connections in each parish are given in Table B.

TABLE B.

Houses connected with the Mains of the
STROUD WATER COMPANY.

Civil Parish	Total houses (inhabited & uninhabited) 1901	CONNECTIONS.			Per cent. of total houses supplied
		Total 31 Dec. 1908	New during 1909	Total 31 Dec. 1909	
Bisley	586	0	0	0	0
Chalford ..	789	198	10	208	26·4
Miserden* ..	(101)	—	—	—	—
Horsley ..	272	0	9	9	3·3
Minchinhampton	937	451	13	464	49·5
Painswick ..	697	42	22	64	9·2
Cranham* ..	(83)	—	—	—	—
Pitchcombe ..	55	0	0	0	0
Rodborough ..	851	332	23	355	41·7
King's Stanley..	506	148	4	152	30·0
Woodchester ..	197	65	3	68	34·5
Stonehouse ..	517	414	5	419	81·0
Cainscross ..	583	343	3	346	59·3
Leonard Stanley	193	78	0	78	40·4
Randwick ..	180	0	0	0	0
Thrupp ..	339	106	1	107	31·6
Whiteshill ..	362	18	7	25	6·9
S.R.D. (Limits of Supply)	7064	2195	100	2295	32·5

*Beyond limits of supply.

New Connections 1908—124
 1907—124
 1906— 89
 1905— 85
 1904— 74
 1903— 48
 1902— 55
 1901—101

*From information kindly supplied by the local representatives of the
Stroud Water Company.*

In many localities in the district there are excellent sources of water which could be collected and distributed by gravitation for the supply of various hamlets and parishes: in the past, such full advantage as was possible was not taken, and the inhabitants now often use these supplies under disadvantageous conditions, such, for example, as carrying water considerable distances and using water open to pollution by others higher up. One disadvantage of the extension of the Water Company's service is that these local supplies are gradually falling into disuse, whereas, by the proper protection and distribution of the water, considerable areas could be supplied very cheaply. An instance of this may be seen at Stonehouse where attention has been drawn for many years to 39 houses near Woodcock Lane which are at present dependent on a spring after the water has flowed through cattle ponds and along a roadside ditch where it receives the road washings: this water could be collected in a tank at its source and distributed at a reasonable cost, but it appears probable that it will be lost to the village as the Parish Council was unwilling to do the small amount of work necessary and as I am informed the Water Company are about to lay a main for the supply of houses in this neighbourhood.

The most important event of 1909 was the extension of the mains of the Water Company by way of Barton End (where they had been carried by private enterprise) to Nupend and Downend, Horsley, the work having been nearly completed by the end of the year. This course was preferred by the Parish Council to carrying out a separate scheme for utilizing an excellent local supply and was approved by the District Council who guaranteed the Company 10% on their outlay (estimated at £300) for three years.

Attention appears to be given by some Parish Councils to local water supplies: thus, during 1909 the King's Stanley Parish Council erected a pump and fencing at the Borough at a cost of £13 6s. 5d., and the Rodborough Parish Council took steps to protect a spring at Kingscourt. Under section 8 (1) of the Local Government Act 1894 Parish Councils have considerable powers or utilizing local water supplies and they might with advantage systematically inspect their public springs and wells with a view to their proper protection and useful distribution for each locality: they cannot incur total expenses involving more than a sixpenny rate in any year, or more than a three penny rate without the consent of the parish meeting.

During the year attention was drawn to the turbidity after rainfall of a spring at Bussage, which—it appeared—might probably be due to the discharge of road surface water into a grit chamber at a dip in the road, 42 yards above the spring: this was tested on the 13th November with a pint of fluorescin solution and some 40 gallons of water with a negative result.

Alterations have been made to the public spring at Cranham, whereby considerable improvement has been effected.

DAIRIES, COWSHEDS AND MILKSHOPS.

The usual inspections of dairies and cowsheds were made, the number of visits paid during 1909 being 122. The number on the register varies from time to time and appears to be on the increase. There is room for considerable improvement as regards cleanliness in the cowsheds and farmyards, but on the whole great care is given to milk which reaches the dairy, though little milk is kept there and the greater quantity goes forthwith to the churn for distribution. No arrangement has been made for the examination of dairy cows by a veterinary inspector.

SLAUGHTER HOUSES.

The number of slaughter houses on the register is 28 which were all inspected during 1909, 110 visits having been made. Urban powers under section 169 of the Public Health Act 1875, and bye-laws adopted under this section would enable effective action to be taken as necessary. Such bye-laws were adopted in 1909 in the Urban District of Nailsworth which is surrounded by this District.

SEWERAGE AND SEWAGE DISPOSAL.

Prior to 1900 the only parish which had been provided with a complete system of sewers and sewage disposal works was Stonehouse where a scheme, with chemical precipitation disposal works, was carried out in 1884 at a cost of £3000: Minchinhampton had also a system of sewers, some stone and some pipe, leading to an open tank off Well Hill which overflows to a brook in the valley and is cleared out as occasion requires.

During the past ten years five other parishes have been provided with complete sewerage and disposal works :—

1902.—Cainscross and part of Rodborough, with disposal works (septic tanks and filters) at Ebley.

1904.—Thrupp and the remainder of Rodborough, with similar disposal works at Ham Mill (£26,000 for this and above)

1906.—Woodchester, the main sewer connecting with the Rodborough section of the first scheme (£3000)

1909.—Painswick, draining to disposal works (septic tank and un-walled filter, with Stoddart's distributors) below Painswick Mill (£6000)

At different times the sewers in the various parishes have been extended to meet new requirements, and the disposal works at Ebley are now being enlarged (at a cost of about £1500) to take the additional sewage which will be discharged from the Nailsworth Urban District when the intercepting Nailsworth sewer is connected with the Rural District main sewer at the boundary of the district at Inchbrook.

The numbers of houses connected with the various sections of sewers during 1909 and previous years are :—

	Total houses connected 31 December, 1908		New connections 1909		Total connections 31 December 1909
Cainscross	377	...	23	...	400
Rodborough	487	...	21	...	508
Woodchester	62	...	18	...	80
Thrupp	231	...	2	...	233
Painswick	—	...	213	...	213

The various disposal works appear to deal with the sewage satisfactorily, though in 1908 complaints of smell from the Cainscross works were made by the Parish Council: some slight alterations were made and no further complaints have been received.

The effluent from the Stonehouse works is not satisfactory but alumino-ferric is to be used as a precipitant instead of lime in the hope that a better effluent may be secured.

The two parishes which will probably be the next to require attention are King's Stanley and Leonard Stanley.

RIVERS POLLUTION.

The neighbourhood of Cuckold's Brook was again visited (9th Sept.) by an Inspector of the Local Government Board (Mr. H. A. Reed), and negotiations between the Urban and Rural District Councils as to the proposed joint sewer for the drainage of this part were carried on. The latest proposal is that the sewer shall be constructed by the Urban District Council and that the Rural District Council shall make an initial and annual contributions towards the cost.

The nuisance from the ditch near the school at Leonard Stanley of which complaint was made in 1907 was remedied during 1909 by the laying of a pipe drain.

In August, complaints were received as to alleged nuisance from the condition of the Frome River at Dudbridge, near the effluent outlet from the Stroud Urban Sewage Works, and were referred to the Urban District Council.

This river is the most important stream in the District and supplies a portion of the power used in many of the mills which discharge their waste waters into it. Formerly the river received all the drainage from the villages alongside, but during the past ten years the extensive sewerage schemes carried out by the Rural District Council have removed the greater part of contamination by domestic sewage. The removal of manufacturing waste waters, however desirable it may be, is a serious matter, but it is worthy of consideration whether or not some of the waste waters might not be purified before admission to the brook at a profit to the manufacturer: for example, fats from the washing of wool are recovered profitably by various methods in the North of England, with advantage to the streams into which the mills discharge.

EXCREMENT DISPOSAL.

In parishes which have not been provided with sewers the common form of closet is the privy vault in which excrement accumulates until the occupier sees fit to empty it. The privy vault is most objectionable on many grounds—æsthetic and other: it does not accustom people to cleanly habits, it pollutes the ground and subsoil water, it is always offensive from smell, it forms a breeding place for flies with as a possible—and often probable—result contamination of food, frequently also it is inadequately protected and covered by unsuitable structures.

HOUSE REFUSE.

In 1900 five of the seven parishes were systematically scavenged—Cainscross, King's Stanley, Leonard Stanley, Stonehouse and the Thrupp: as an instance of the cost of collection it may be mentioned that the work is done by contract in Stonehouse for £20 a year and in King's Stanley for £14 10s. 0d.

It is possible with proper management to dispose of house refuse of all kinds on even a small garden as has been described by the late Dr. Vivian Poore in his "Rural Hygiene:" matter which will rot should be placed in a small heap, coal ashes should be sifted the cinders burnt and the ashes put on paths, bones should be burnt and the ashes used for manure, broken crockery forms a good foundation for paths, old tins should be hammered to a manageable bulk and then buried deeply. As it is comparatively rarely that occupiers will take this trouble, systematic scavenging becomes necessary especially in thickly populated places where otherwise unsightly and often offensive accumulations are found, frequently in most undesirable situations. Parishes in this district where systematic scavenging is more particularly desirable are Rodborough and Painswick; correspondence from the Local Government Board with reference to these two parishes was received during 1909, and it is understood that the work will be undertaken by the Rodborough Parochial Committee when they receive the contribution of £1000 from the Nailsworth Urban District towards the cost of the sewage disposal works. The question of the collection of refuse was also raised with respect to Bisley, on a letter which was received by the District Council and was referred to the Parish Council.

Nuisances.

For sanitary purposes the Rural District is divided between two Sanitary Inspectors—Mr. A. Bailey and Mr. J. Hall.

Mr. Bailey was appointed in 1879, and Mr. Hall in 1886. They are also Inspectors of Canal Boats.

In November 1904, both Inspectors were made whole time officers of the Rural District Council in view of the considerable increase in their duties owing to the completion of the sewerage schemes and the supervision necessary for house connections: this work has taken up a considerable portion of their time—of Mr. Bailey at Painswick and Thrupp, and of Mr. Hall at Cainscross, Rodborough and Woodchester.

There is a distinct tendency for the work to increase. Thus in 1902 to the inspection in connection with factories and workshops was added that of outworkers, which is a considerable item in this neighbourhood: in 1908, the attention which has been given to consumption led to the disinfection of houses where cases of this disease occur: under the Housing and Town Planning Act, 1909, it appears from the memorandum of the Local Government Board that detailed inspection of houses will make a further considerable addition to the duties.

From my personal knowledge of their work, both officer diligently occupy themselves in their various duties and give matters their prompt attention, but the time available for inspection is greatly diminished owing to the extremely difficult nature of the district and the distances that have to be traversed.

The chief nuisances requiring attention are those caused by privy vaults and swine; thus of 2554 nuisances reported in the five years (1904-8) 800 or over 31% were occasioned by vaults and swine. Some of the objections to this (antiquated) type of closet have been mentioned earlier and it is evident from the above that if they were abolished in favour of some better form of closet the number of nuisances to be dealt with would be considerably reduced.

BYE-LAWS AND ADOPTIVE ACTS.

No changes were made in 1909 in the Bye-Laws in force in this district. There was one prosecution for contravention of Bye-Law 41, (New Buildings) by providing an outlet in a cesspool; a conviction was obtained and a fine of 10/- imposed.

In 1908 the Council adopted the greater portion of Parts II, III and IV of the Public Health Acts Amendment Act, 1907: some correspondence ensued with the Local Government Board and in May sanction to the parts adopted was given with certain reservations the reasons for which were not clear to the Council: after further correspondence the Council in July agreed to some of the reservations and, with respect to the others, desired reasons for the objections. This Act contains very useful provisions and will enable many sanitary matters to be dealt with more satisfactorily than under existing powers.

Schools.

There are 35 elementary schools of 44 departments in this district with about 5000 children on the registers. The control of these schools is in the hands of the Gloucestershire Education Committee, and the Medical Inspection of the children is carried out by special officers under the direction of the County Medical Officer of Health. All the schools were visited during 1909, the children examined were "entrants" and "leavers", as well as "exceptional" children referred for inspection by the Head Teachers. At the same time a sanitary survey of the buildings was made. The names of children showing special signs of neglect are referred to the sanitary authorities with a view to any defective home conditions receiving attention: the names of sixteen such children were received during 1909.

A most important memorandum on "Closure of and Exclusion from School" by the Medical Officers of the Local Government Board and Board of Education was issued in October 1909 in view of the requirements of the new Code of Regulations for Elementary Schools: the necessity for close co-ordination between the Education and Sanitary Authorities is strongly urged and general directions on particular matters are given for their guidance. The matter is now under the consideration of the Education Committee and it is probable that a communication will shortly be addressed by them to Medical Officers of Health.

There was no great prevalence of infectious disease during 1909, but outbreaks of scarlet fever and diphtheria in various parishes occasioned numerous visits to schools and examination of children in school and of absentees at home. In this way, during an epidemic of scarlet fever in the adjoining district of Nailsworth, a family of four children in this district were found to be suffering from this disease and were removed to Hospital; at another school a swab taken from a child in attendance showed her to be suffering from a mild attack of diphtheria. Schools were closed on five occasions during the year:—

Cranham	Measles, 8th Mar.—2nd Apr.
Minchinhampton—Infants	Measles, 13th May—28th May
Painswick Council—Infants	Measles, 14th Oct.—4th Nov.
Woodchester—S. Dominic's, R.C.	Sanitary alterations March
„ „	Scarlet Fever in Nailsworth,
	15th Oct.—8th Nov.

The last named school was closed in October at the same time as the Nailsworth Schools, as it drew nearly 50% of its children from Nailsworth: on the re-opening of the school all the children were examined for signs of scarlet fever but no cases were found.

FACTORIES AND WORKSHOPS.

The sanitary condition of factories is mainly under the Factory Inspector, while District Councils are responsible for certain matters in factories referred to them by the Inspectors and for the sanitary condition of workshops. The number of workshops averages about 100, (including bakehouses), and the average number of inspections is 164 and of written notices of defects about 29.

Lists of outworkers are now received fairly regularly and the addresses are more satisfactory; the number of outworkers has diminished as there is a tendency for more work to be done in the factory buildings, chiefly ready-made clothing. The detailed figures for 1909 are given in the accompanying table.

FACTORIES, WORKSHOPS, WORKPLACES & HOMEWORK.

Premises	Inspections	Written Notices
Factories (including Factory Laundries)	73	11
Workshops „ Workshop „	92	16
Workplaces (other than Out-workers premises)	35	6
Total	200	33

DEFECTS.

Defects.		Fond	Remedied	
Want of Cleanliness	...	13	13	
Want of Ventilation	...	2	2	
Want of drainage of floors	...	6	6	Section 22
Other Nuisances	...	4	4	Public Health
Sanitary accommodation unsuitable	...	3	3	Acts Amendment
or defective	}			Act, 1890,
Breach of special sanitary requirements	}	7	7	not adopted.
for bakehouses	}			
Total	...	35	35	

HOME WORK.

Lists received from Employers – Sending twice in the year

Making Paper Bags and Boxes	...	...	...	...	...	2
Number of Workmen	...	...	...	...	...	42

Lists received from Employers—Sending in once in the year

Making Bags and Boxes	..	...	...	...	...	...	1
Number of Workmen	...	...	...	...	...	...	4

Addresses of out-workers received from other Councils.

Making wearing apparel, &c.	}	95
-----------------------------	-----	-----	-----	---	-----	-----	----

Inspections of out-workers' premises—Making wearing apparel	95	} 120
" " " " Paper bags & boxes	25	

Outwork in Unwholesome Premises—Instances	2
---	-----	-----	-----	---

„	„	„	Notices served ...	...	...	2
Outwork in Infected Premises—Instances	...	...	...	...	...	2

REGISTERED WORKSHOPS.

Bakehouses	...	...	...	...	39
Builders, Carpenters, &c.	...	...	...	...	26
Blacksmiths	...	...	...	...	14
Wheelwrights	...	...	...	...	7

Painters and Plumbers	...	...	...	7
Saddlers	...	...	...	3
Cycle Repairers	...	...	...	4
Engineering Shop	...	...	...	1
Boat Builders	...	...	...	1
Leather Worker	...	...	...	1
Bootmakers	...	...	...	5
Organ Builder	...	...	...	1
Oil Merchants	...	...	...	2
Dressmakers	...	...	...	8
Total number of workshops on Register	...	...	...	119

OTHER MATTERS.

Underground Bakehouses—In use at end of the year	11
--	-----	-----	----

Notifiable Diseases.

The total number of notifications received during 1909 was 97; these include the first 10 cases of pulmonary tuberculosis notified under the Public Health (Tuberculosis) Regulations 1908. Excluding these cases, the number of notifications during 1909–87—was less than in either of the two previous years: since 1890, when notification was first adopted in this district, the number was lower in nine years and was greater in ten years than in 1909.

The summary of cases, removals and deaths is given in the accompanying table, and fuller details, including the numbers in each parish, will be found in Table III appended.

	Notifications.	Removed to Hospital.	Deaths.
Scarlet Fever	58	47	1
Diphtheria	18	9	0
Typhoid Fever	1	1	0
Puerperal Fever	1	0	0
Erysipelas	9	0	1
Pulmonary Tuberculosis	10	0	4 (notified cases)
	<u>97</u>	<u>57</u>	<u>6</u>

SCARLET FEVER.

The prevalence of Scarlet Fever in this district since 1890 was at its maxima in 1891 and 1900; the fewest cases in any one year were 10 in 1906, the numbers increasing to 36 in 1907 and 73 in 1908, and decreasing to 58 in 1909. 47 cases were removed to the Isolation Hospital. The parishes in which the largest numbers of cases occurred were Minchinhampton, 13; Cainscross, 11; Painswick, 9; and Rodborough, 8. The cases were spread over the whole of the year, but 10 cases occurred in Minchinhampton during February, March and April, and the 9 cases in Painswick during June, July, August and September. The disease was generally of a very mild type but one mentally defective child died in February; numerous children were examined at school and at their homes, and four cases were found in one house and removed to Hospital. One girl early in the year appeared to have been infected by a patient who had been in the Isolation Hospital fifteen weeks and who came in contact with the girl three weeks later; after leaving the Hospital the patient had developed nasal discharge. There were four other cases which might be attributed to the return of patients from Isolation Hospitals, three from the Cainscross Hospital and one from Woodford Green Hospital.

DIPHTHERIA.

The 18 cases of diphtheria were distributed over 10 parishes, with seven in five houses in Stonehouse; three occurred in the first two months of the year and fifteen in the last five months. Many school children were examined at school and at their homes and swabs taken; one of the swabs showed the presence of diphtheria organisms and the patient was removed to Hospital; no deaths from this disease occurred during the year. On the 4th December the Council decided to supply antitoxin for the injection of contacts at the discretion of the Medical Officer of Health, for 12 months, on the condition that a swab was taken at the same time.

TYPHOID FEVER.

Only one case was notified during 1909, namely one in Horsley at the end of the year; the patient had only recently come to this district from the neighbourhood of Cirencester, and was probably infected before coming to Horsley.

ERYSIPELAS.

The number of cases of Erysipelas (9) is only about half the annual average: the last year in which so few cases were notified was 1891.

PULMONARY TUBERCULOSIS.

In my last Annual Report I included fairly full observations on the Public Health (Tuberculosis) Regulations, 1908, under which all cases occurring amongst "poor persons" are compulsorily notifiable, and later—in March—on receipt of the Memorandum of the Medical Officer of the Local Government Board I made a full report which was printed and circulated. The various necessary forms and registers were then obtained and sent to the Poor Law Medical Officers, Relieving Officers, and Workhouse Master; the Medical Officer of Health was authorised to obtain a supply of Japanese Handkerchiefs for distribution in such cases as he considered necessary. During the last nine months of the year 12 notifications were received in connection with 10 cases, 11 from Poor Law Medical Officers (two from different doctors in respect of one patient who had moved into another district) and one change of address from a Relieving Officer. Three of the patients had died by the end of the year, leaving seven resident poor law patients in the whole district. Two of the patients were boarded-out children, living under satisfactory conditions, but the homes of the remaining eight (with perhaps two exceptions) were far from satisfactory. Three only of the patients occupied a separate room.

Disinfection of the houses of the patients is undertaken on removal and after death, and 16 houses were disinfected on account of this disease during 1909.

Room disinfection in this district is at present done by fumigation with sulphur while bedding and other bulky articles are disinfected in the steam disinfector at the Isolation Hospital. For the disinfection of the wards a formalin spray apparatus has been obtained and a similar method of disinfection for houses might be adopted with advantage. This would, however, entail the labour of carrying the apparatus long distances and occupy more of the time of the Inspectors who are not provided with any conveyance. In all cases, where it seems necessary, the wall paper should be stripped off or the walls scraped and re-limewashed.

Isolation Hospital.

The following summary with respect to admissions, discharges, and average period of detention in Hospital has been drawn up by Dr. Blake.

STROUD JOINT ISOLATION HOSPITAL.

	Scarlet Fever.	Diph- theria.	En- teric.	Other diseases.	Total
Cases in Hospital 1st } January, 1909 }	22	0	1	2	25
Admissions during 1909	85	28	5	1	119
Total...	107	28	6	3	144
Cases discharged during 1909	90	13	2	3	108
Deaths during 1909	1	1	1	0	3
Cases in Hospital 31st } December, 1909. }	16	14	3	0	33
Total...	107	28	6	3	144
Average number of days } in Hospital calculated } on the discharges and } deaths during 1909. }	56.84	37.21	44	32	53.35

Vital Statistics.

POPULATION.

The population of the district at the middle of 1909 has been estimated on the same basis as in previous years, that is, on the assumption that the rate of change in the present decennium is the same as during the decennium 1891—1901. The natural increase (excess of births over deaths) during the decennium 1891—1901 was 2319 but the population at the time of the census 1901 was 717 less than in 1891, showing that there must have been a migration of 3036 persons (9.8% of population in 1901) from the district during these ten years. The natural increase in the population in the eight years (1901—1908) was 1344: the population as above estimated at the middle of 1909 is 27,214 or 579 less than at the time of the census 1901, showing an estimated migration of 1923 persons from the district in the eight years, that is 6.6% of what the total population would have been on the natural increase alone. The differences for individual parishes range from 1.2 to 14.9%. The total number of new houses certified for occupation during the past five years (the information is not available for years before the bye-laws were in operation) was 135: this would afford accommodation for 566 extra persons on the average number per house in 1901, and on this basis the population would be about 28,372. The rate of migration at the present time is possibly less than it was from 1891 to 1901, and while probably the population is below that on the natural increase (29,137), it is above that estimated on the rate of decrease between those years (27,214) and about that obtained from the number of new houses (28,372) say about

28,000. Owing to the impossibility of obtaining accurate figures for the district and parishes, it will for present purposes probably be most advantageous to estimate the population on the same basis as in previous years and correct the rates after the next census. This will have the effect of making the rates calculated for this year fairly comparable with those for previous years.

Details of the statistics for 1909 and previous years will be found in Tables I. to V. of the Local Government Board, appended herewith, and in Table D, which gives certain parochial rates.

BIRTHS.

The number of births registered during 1909 was 506—265 males and 241 females—the lowest number in any year of which I have records,—since 1875—and the birth rate 18·6 is also the lowest.

Table C.
QUINQUENNIAL RATES.

		Birth Rate		Death Rate		Infantile Mortality
1875—1880	...	29·9	...	18 0	...	136
1881—1885	...	28·9	...	16·6	...	110
1886—1890	...	27·8	...	15·8	...	103
1891—1895	...	25·2	...	16·2	...	110
1896—1900	...	22·7	...	14·5	...	96
1901—1905	...	20·3	...	13·1	...	80
1909	...	18·6	...	15·0	...	75

The steady fall in the birth rate since 1875 is shown in Table C, which gives the quinquennial rates since 1875: during the 30 years it fell from 29·9 to 20·3, and at present there is no indication of any tendency to increase. On the other hand, if,—as I have stated is possible—my estimate of the population is low, the birth rate for the last few years is even less than has been stated. In the same period the birth rate for England and Wales fell from 35·4 in 1875 to 27·2 in 1905.

From Table D, it will be seen that the parishes with the highest average birth rates are Horsley (28·5), Whiteshill (24·6), Rodborough (21·75), Leonard Stanley (21·4), and Miserden (21·4): those with the lowest—Cranham (13·2), Pitchcombe (13·6), Stonehouse (17·0), and Thrupp (18·2).

Of the total 506 births, 18 or 3·6% were illegitimate. Records of this information are available from 1902: the average percentage for the whole district in these eight years is 3·15. The parishes in the district are arranged in order in the following table:—

Illegitimate Births as percentage of total births for eight years—

1902—1909			
Over 6·0%	...	Miserden	6·6
5·0—6·0	...	Horsley	5·2
		Painswick	5·1
		Chalford	5·0
4·0—5·0	...	Pitchcombe	4·5
		Cainscross	4·1
3·0—4·0	...	Stonehouse	3·8
		Cranham	3·4

2.0—3.0	...	King's Stanley ...	2.8
		Bisley ...	2.6
		Minchinhampton	2.4
		Leonard Stanley	2.0
1.0—2.0	...	Rodborough ...	1.8
		Randwick ...	1.7
		Thrupp ...	1.6
		Whiteshill ...	1.2
Under 1.0	...	Woodchester ...	.9

The rates for the corresponding period in the Stroud Urban District is 5.96 and in the Nailsworth Urban District 3.91.

DEATHS.

The number of deaths registered in the District during 1909 was 336, 3 in the Isolation Hospital and 2 in the Cotswold Sanatorium; both the latter and two of the former were of persons belonging to other districts. Seventy-six persons belonging to this district died in Public Institutions beyond the district, namely 39 in the Stroud Union Workhouse, 20 in the Stroud General Hospital, 14 in the County Asylum, 1 each in the Gloucester Royal Infirmary and Bristol Royal Infirmary and 1 in the Stroud Water Canal. Making these corrections, the net deaths for 1909 are 408, a rate per 1000 of 15.0. This is the highest rate recorded since 1899 (16.1). The death rate in the last quarter of the year was low, but it was high in each of the first three quarters, particularly the first of the year. The great excess of deaths occurred at ages over 65 years: the average in this group during the previous nine years was 160, but the number in 1909, was 203. There was also some increase at ages 15 to 65 years. The chief defined diseases which showed an increase as the cause of death during 1909 were influenza, tubercular diseases, cancer and bronchitis.

The death rate corrected for the age and sex distribution of the population is 13.9, and that for England and Wales 14.5. The quinquennial death rates are given in Table C and the rates for the individual parishes in Table D.

INFANTILE MORTALITY.

The number of deaths under one year of age was 38, being an increase on the numbers in 1908 and 1907, and the same number as in 1906; the average for the previous 10 years is 44. The infantile mortality for the 10 years was 78, and in 1909, 75. During the previous 30 years the quinquennial rate fell from 136 to 80. (Table C.)

ILLEGITIMATE INFANTILE DEATHS.

Since 1902, it has been possible to record legitimate and illegitimate infantile mortality separately: the total numbers of legitimate and illegitimate births and deaths for the eight years (1902-1909) are given in the following table:—

	Births	Deaths	Infantile Mortality
Legitimate	4226	306	72
Illegitimate	138	20	145
Total..	4364	326	75

from which it will be seen that the chances of an illegitimate infant surviving until its first birthday were only one-half of those of a legitimate infant.

TABLE D.
Parochial Rates.

BIRTH RATE, DEATH RATE, AND INFANTILE MORTALITY.										
1909 and Averages—Birth Rate .. 1900—1908 Death Rate .. 1899—1908 Infantile Mortality 1900—1908										
PARISH	Estim- ated popula- tion 1909	BIRTH RATE.			DEATH RATE.			INFANTILE MORTALITY		
		1909		Aver'ge Rate	1909		Aver'ge Rate	1909		Aver'ge Rate
		Births	Rate		Dea'hs	Rate		Dea'hs	Rate	
Bisley ..	1889	37	19·6	19·4	24	12·7	13·9	3	81	77
Chalford ..	2864	56	19·6	20·1	44	15·4	13·3	2	36	73
Miserden ..	354	6	17·0	21·4	2	5·65	11·8	0	—	38
Horsley ..	970	28	28·9	28·5	21	21·6	15·7	1	36	72
Minchinh'pt'n	3575	64	17·9	19·3	45	12·6	13·8	4	63	72
Painswick ..	2450	48	19·6	19·7	33	13·5	14·6	3	63	76
Cranham ..	325	2	6·2	13·2	5	15·4	13·2	1	500	93
Pitchcombe ..	211	0	—	13·6	6	28·4	12·7	0	—	67
Rodborough ..	3726	71	19·1	21·75	46	12·4	11·45	3	42	87
King's Stanley	1732	32	18·5	19·4	33	19·1	14·9	6	188	66
Woodchester..	781	15	19·2	18·6	13	16·6	14·9	2	133	80
Stonehouse ..	2348	31	13·2	17·0	43	18·3	11·6	6	194	82
Cainscross ..	2180	38	17·4	19·8	33	15·1	13·4	0	—	67
Leonard Stan'y	605	9	14·9	21·4	14	23·1	14·5	3	333	57
Randwick ..	741	11	14·8	19·8	11	14·8	13·2	0	—	120
Thrupp ..	1211	24	19·8	18·2*	21	17·3	12·2	0	—	35
Whiteshill ..	1252	34	27·2	24·6*	14	11·2	12·7	4	118	97
STROUD R.D.	27,214	506	18·6	20·4	408	15·0	13·5	38	75	78

*1901—1908.

The causes of and ages at death of children under one year of age are given separately in Table V. (L.G.B.).

UNCERTIFIED DEATHS.

The number of deaths which were not certified by a medical practitioner was 42 (10·3% of total deaths), the largest number since 1904 when it was 46 (13·5% of total deaths). Inquests were held in 39 cases (9·6% of total deaths); the summary of the verdicts is:—

INQUESTS :

Natural causes.

Syncope and heart failure	...	...	12
Bronchitis	...	...	1
Inflammation of bowels	...	...	2
Hæmorrhage from stomach	...	..	1
" lungs	...	...	1
Alcoholism	...	...	1
Found dead in bed	...	...	1—19

Accidents.

Drowning	...	...	4
Falls—downstairs	...	3\	6
other	...	3f	
Fall followed by tetanus		1\	2
Cut followed by septic poisoning		1f	
Death under anæsthetic	...	...	1
Burns	...	...	1
Smothered	...	...	1
Knocked down by cart	...	...	1
Thrown out of van	...	...	1—17

Suicides.

Cutting throat	...	...	1
Carbolic Acid poisoning	...	...	1
Drowning in water butt	...	...	1— 3

39

The ascribed causes of death in the 3 cases (·9% of total deaths) on which no inquests were held are:—

1. f. 73 years—heart disease of long standing.
2. f. 70 „ heart failure.
3. m. 6 hours—premature birth.

The proportion of uncertified deaths has diminished fairly steadily from 7 to 8% early in the eighties to about 1 or 2% in the last ten years.

Rainfall,

The observers at various stations have again been good enough to supply me with their records of rainfall, but unfortunately the completeness of the observations has been broken at two stations owing to cracking of the receiver. Consequently, Mr. Butt, of Springfield, Hayward's End has not given his records. I take this opportunity of expressing my thanks for the information contained in Table E. to:—

Sir William H. Marling, Bart.
E. Armitage, Esq.
C. J. Bowstead, Esq.
Rev. C. Marriott.

Robert B. Martin, Esq.
W. A. Sibly, Esq.
W. J. Stanton, Esq.

Mr. Sibly notes that the fall of 1909 is about $1\frac{1}{2}$ inch above the average; the excess has been greater at other stations, *e.g.*, Lypiatt, 3.8 inches; Chalford, 3.28 (or allowing 1.50 for loss, 4.78) and Stanley Park, 2.91. At Stratford Lodge the rainfall was only .86 above the average of the previous 12 years. Mr. Sibly notes further that the first ten weeks of the year were dry and cold, a ground frost being registered on 41 nights; the summer on the whole was cold and wet, the minimum temperature on June 4th and June 6th being less than on December 27th. Except November, the autumn was decidedly wet. Although the rainfall was much greater in 1909 than in 1908 the number of wet days at the various stations was about the same in each year.

TABLE E.

Rainfall 1909, and Averages.

1909.	Park Farm Lypiatt.	Cheringt'n Rectory.	Hyde Grange, Chalford.	Stratford Lodge, Stroud.	Stanley Park, Stroud.	The Croft, Westrip, Randwick.	Wycliffe College, Ston'house
	690 ft. o.d.	520 ft. o.d.	528 ft. o.d.	150 ft. o.d.	365 ft. o.d.	300 ft. o.d.	124 ft. o.d.
January ...	1.42	.97	1.46	1.19	1.48	1.03	1.07
February	.81	.52	.72	.62	.58	.56	.54
March ...	3.71	3.35	4.44	3.60	4.08	3.30	3.46
April ...	2.98	2.65	3.09	2.15	2.54	1.74	2.16
May ...	1.44	1.25	1.51	1.09	1.21	1.06	1.11
June ...	3.26	3.27	2.84	2.59	2.79	2.72	2.56
July ...	3.24	2.37	3.38	2.36	2.42	2.35	2.49
August ...	2.92	2.81	3.17	2.46	2.81	2.41	2.40
September	3.38	2.74	3.24	3.26	3.26	3.19	3.05
October ...	5.16	4.71	5.82	4.43	5.29	4.41	4.19
November	1.24	1.01	1.20	1.17	1.34	.77	1.04
December	4.89	3.79	3.57*	4.03	4.47	4.09	4.28
1909	34.45	29.44	34.44*	28.95	32.27	27.63	28.35
Average ...	30.63 <small>1899-1908</small>	27.80 <small>1896-1908</small>	31.16 <small>1895-1908</small>	28.09 <small>1897-1908</small>	29.36 <small>1889-1908</small>		26.85 <small>1890-1908</small>
No. of wet days, 1909		201		178	159	161	179

* Receptacle cracked by frost and probably about 1.50 inches lost.

STROUD RURAL DISTRICT COUNCIL

District No. 1.

Sanitary Inspector's Report

**Sanitary work completed in the year ending
December 31st, 1909.**

PREVENTION OF INFECTIOUS DISEASE UNDER DIRECTIONS OF
MEDICAL OFFICER OF HEALTH.

No. of Cases inquired into	...	...	...	...	29
„ Houses disinfected	...	...	...	...	23
„ Visits and re-visits	...	...	...	...	73

HOUSES.

No. of plans for new houses approved	...	...	...	...	8
„ houses built	...	...	...	...	12
„ houses cleaned and made fit for habitation	...	...	...	...	4
„ investigations <i>re</i> unfit for habitation	...	...	...	...	5
„ overcrowding	...	...	...	...	3

HOUSE DRAINS.

No. of tested	...	...	...	...	161
„ defective drains and appliances made sound	..	...	...	...	56
„ defective drains taken out, re-laid and tested	...	...	...	...	60
„ insanitary iron lip traps taken out and replaced by stoneware gullies	...	...	...	...	64
„ newly provided with proper means of ventilation	...	...	...	...	83
„ houses connected to sewers	...	...	...	...	215
„ water closets newly provided with flush cisterns	..	...	...	...	42
„ water closets built in place of old privies	...	...	...	...	18
„ minor investigations	...	...	...	...	45

SEWERS.

No. of extensions	...	...	...	...	1
„ tested	...	...	...	...	4
„ connections attended to	..	...	...	...	161
„ saddle junctions fixed	...	...	...	...	23
„ sewers cleansed	...	...	...	...	7
„ manholes inspected and cleansed	...	...	...	...	51
„ manholes repaired	...	...	...	...	1
„ lampholes repaired	...	...	...	...	3
„ inspection of flushing chambers	...	...	...	...	19
„ repairs to flushing chambers	...	...	...	...	1
„ repairs to sewers	...	...	...	...	1
„ repairs to outfall works	..	...	...	...	1
„ sewage flow gaugings taken	...	...	...	...	6

PAINSWICK DRAINAGE.

No. of connections to sewers attended to	...	...	155
„ dwelling-houses drained to sewer	...	...	213
„ places of worship ditto	...	...	4
„ schools ditto	...	...	1
„ stables, coach-houses, etc., drained to sewer	...	...	7

THRUPP AND BRIMSCOMBE DRAINAGE.

No. of connections to sewers attended to	...	...	6
„ dwelling-houses drained to sewer	...	...	2
„ factories ditto	...	...	3
„ workshops ditto	...	...	2

PRIVIES, EARTH CLOSETS, ETC.

No. of privy vaults cleansed and disinfected	..	...	67
„ privy vaults abolished	...	...	33
„ water closets provided in place of privy vaults	...	...	35
„ earth closets ditto ditto	...	...	2
„ earth closets build	...	...	6
„ earth closets cleansed	...	...	1

SANITARY ARRANGEMENTS AT SCHOOLS.

No. of inspections	...	...	26
„ matters dealt with	...	...	2
„ visits to schools <i>re</i> infectious disease	...	...	7

OFFENSIVE REFUSE.

No. of removals from ashpits, etc.	31
------------------------------------	-----	-----	----

SCAVENGING.

Under supervision and satisfactorily carried out by contractor ;
disinfectants supplied.

WATER SUPPLY.

No. of samples taken for analysis	...	...	5
„ certificates granted under sect. 6 of the Public Health (water) Act	...	...	10
„ notices to owners to put on water from mains	...	...	2
„ improved means of obtaining supply from wells	...	...	1
„ public supplies inspected	...	...	11

SLAUGHTER HOUSES.

No. of private slaughter houses in the district	...	...	6
„ ditto periodically visited	...	...	6
„ notices to cleanse and lime-wash	...	...	2

BAKEHOUSES.

No. of retail bakehouses in the district	...	...	13
„ ditto periodically visited	...	...	13
„ contraventions of sect. 99 of the Factory and Workshops Act, 1901, dealt with	...	...	2

DAIRIES, COW SHEDS, AND MILK SHOPS.

No. of inspections of cattle, dairies, sheds, trade utensils, etc.	59
„ contraventions of regulations dealt with ...	7

ANIMALS KEPT SO AS TO BE A NUISANCE.

No. of notices served and nuisances abated ...	5
--	---

ANTHRAX.

No. of infected premises inspected and thoroughly disinfected	1
„ carcasses burned ...	7

PETROLEUM ACT.

No. of premises inspected and re-inspected ...	8
„ licenses granted to store benzoline ...	7
„ ditto ditto carbide of calcium ...	1

FACTORIES, WORKSHOPS, AND WORKPLACES.

No. of factories in the district under inspection ...	12
„ workshops ditto ...	32
„ investigations <i>re</i> contraventions of the act ...	11
„ outworkers' residences inspected ...	67
„ outworkers' workrooms cleansed upon notice to occupiers ...	2

CANAL BOATS.

No. of visits to the canal ...	55
„ boats inspected and found satisfactory ...	12

L.G.B. INQUIRIES.

No. attended <i>re</i> Oozles Brook Drainage ...	1
--	---

CLERICAL.

No. of official letters ...	303
„ notices ...	181
„ ditto outstanding ...	4

(Signed) ALBERT BAILEY,

Sanitary Inspector.

January, 1910.

STROUD RURAL DISTRICT COUNCIL

District No. 2.

Sanitary Inspector's Report

of the Sanitary Work completed in the year
ending December 31st, 1909.

PREVENTION OF INFECTIOUS DISEASE, UNDER DIRECTION OF
MEDICAL OFFICER OF HEALTH.

No. of cases enquired into	...	...	...	...	77
„ visits and re-visits made	...	...	...	...	120
„ houses disinfected	...	...	...	...	62
„ cases of illegal exposure	...	...	...	...	0

HOUSES.

No. of houses erected and in course of erection	...	...	...	35
„ „ repaired and made habitable	...	...	...	10
„ „ cleansed and white-washed	...	...	...	12

OVERCROWDING.

No. of cases investigated, notices served and abated	8
--	-----	-----	-----	---

HOUSE DRAINS.

No. of houses newly connected to public sewers	...	...	...	65
„ house drains connected to sewers and tested	...	...	...	65
„ defective drains re-laid and tested	...	...	...	27
„ drains cleared, trapped and ventilated	...	...	...	18
„ bath wastes and scullery disposal pipes improved	...	...	...	11
„ stoneware sanitary gullies provided	...	...	...	23

WATER CLOSETS.

No. of water closets provided in place of privies	...	...	...	40
„ ditto repaired, lime-washed and ventilated	...	...	...	31
„ ditto fitted with new flushing cisterns	...	...	...	20

URINALS.

No. of urinals repaired, cleansed and lime-washed	10
---	-----	-----	-----	----

MAIN SEWERS.

No. of manhole covers repaired and re-blocked	...	...	6
„ ventilating shafts repainted	...	...	5
„ repairs and special works to sewers	...	...	4
„ visits and inspections of manholes and syphons	...	...	56

PRIVIES, ASHPITS AND EARTH CLOSETS.

No. of privy vaults cleared under local arrangements	...	28
„ „ „ cleared in compliance to notices served	...	82
„ privies repaired and lime-washed	...	26
„ earth closets lime-washed and dealt with	...	24
„ ashpits cleared out and disinfected	...	17

SCHOOL CONVENIENCES.

No. of schools visited and inspections made	...	17
„ „ provided with new sanitary closets	...	2
„ „ newly supplied with water	...	2

WATER SUPPLY.

No. of wells cleansed and repaired	...	3
„ new well provided	...	1
„ samples of water submitted for test as to purity	...	8
„ public spring supplies improved	...	2
„ notices served to provide water supply	...	2
„ certificates issued to owners <i>re</i> water supply	...	4

OFFENSIVE TRADES.

No. of cases of offal boiling dealt with and abated	...	2
„ „ foul animal matter destroyed	...	1
„ „ cow carcase destroyed after milk fever	...	1

SLAUGHTER HOUSES.

No. of slaughter houses visited and re-visited	...	22
„ notices to cleanse and lime-wash interior	...	8
„ „ to repair walls and floors	...	3

FACTORIES AND WORKSHOPS.

No. of factories visited	...	56
„ workshops „	...	61
„ workplaces „	...	35
„ out-workers' premises inspected	...	53
„ repairs and insanitary conditions rectified	...	37

BAKEHOUSES.

No. of bakehouses inspected and revisited	...	26
„ notices to clean and white-wash complied with	...	11

DAIRIES AND COWSHEDS.

No. of persons engaged in milk trade and under supervision	63
„ visits made to dairies, sheds and stores	90
„ notices served to repair, cleanse and lime-wash, complied with	16

CANAL BOATS.

No. of boats inspected	22
„ „ found registered... ..	21
„ notice served requiring the owner to have the boat registered	1
„ compliance made to the requirement	1

PETROLEUM ACT.

No. of licenses granted to store petroleum	2
---	---

GIPSY DWELLINGS.

No. of visits made to gipsy quarters	6
---	---

ANIMALS KEPT SO AS TO BE A NUISANCE.

No. of notices served, compliance made and nuisances abated	32
---	----

ACCUMULATIONS OF OFFENSIVE REFUSE.

No. of removals and compliance to notices served ...	60
--	----

LEGAL PROCEEDINGS.

No of directions given for proceedings to be taken ...	1
„ summons taken out	1
„ conviction and costs paid by the defendant ...	1

CLERICAL WORK.

No. of official letters written	302
„ notices served	331
„ „ complied with	327
„ „ in hand	4

(Signed) JOHN HALL,

Sanitary Inspector.

January, 1910.

Table I.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1909 AND PREVIOUS YEARS.

YEAR.	Popula- tion estima- ted to middle of each year.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.				Total deaths in Public Institutions in the District.	Deaths of non-residents registered in Public In- stitutions in the District.	Deaths of Resid'nts regis- tered in Public Institu- tions beyond the District.	NETT DEATHS AT ALL AGES BELONGING TO THE DISTRICT.	
		Number.	Rate*	Under 1 year of age.		At all Ages.					Number.	Rate.*
				Number.	Rate per 1000 Births regis- tered.	Number	Rate.*					
1	2	3	4	5	6	7	8	9	10	11	12	13
1899	27,910	631	22.6	63	100	407	14.6			43	450	16.1
1900	27,840	556	20.0	46	83	356	12.8	4	4	42	394	14.2
1901	27,769	572	20.6	41	72	315	11.3	3	3	50	362	13.0
1902	27,702	553	20.0	50	90	330	11.9	6	6	45	369	13.3
1903	27,630	590	21.4	43	73	318	11.5	9	9	36	345	12.5
1904	27,565	541	19.6	45	83	320	11.6	6	6	28	342	12.4
1905	27,494	555	20.2	47	85	335	12.2	4	3	63	395	14.4
1906	27,422	526	19.2	38	72	289	10.5	10	7	65	347	12.6
1907	27,350	540	19.7	34	63	338	12.4	12	10	45	373	13.6
1908	27,280	553	20.3	31	56	302	11.1	9	5	51	348	12.8
Averages for years 1899-1908	27,596	562	20.4	44	78	331	12.0	7	6	47	373	13.5
1909	27,214	506	18.6	38	75	336	12.3	5	4	76	408	15.0

* Rates in Column 4 and 8 should be calculated per 1,000 of the estimated gross population.

Area of District in Acres (exclusive of area covered by water) ..		37,047	Total Population at all ages ..	27,793	At Census of 1901.
			Number of inhabited houses ..	6,635	
			Average number of persons per house ..	4.19	
Institutions within the District receiving sick and infirm persons from outside the District		Stroud Joint Isolation Hospital. Cotswold Sanatorium, Cranham. Painswick Sanatorium. Convalescent Home, Alexandra Hospital for children with Hip Disease, Painswick.			
Institutions outside the District receiving sick and infirm persons from the district ..		Stroud Union Workhouse. Stroud General Hospital. Gloucester County Asylum. Royal Gloucester Infirmary.		Other Institutions, the deaths in which have been distributed among several localities in the District	
				Bristol Royal Infirmary. Stroud Water Canal	

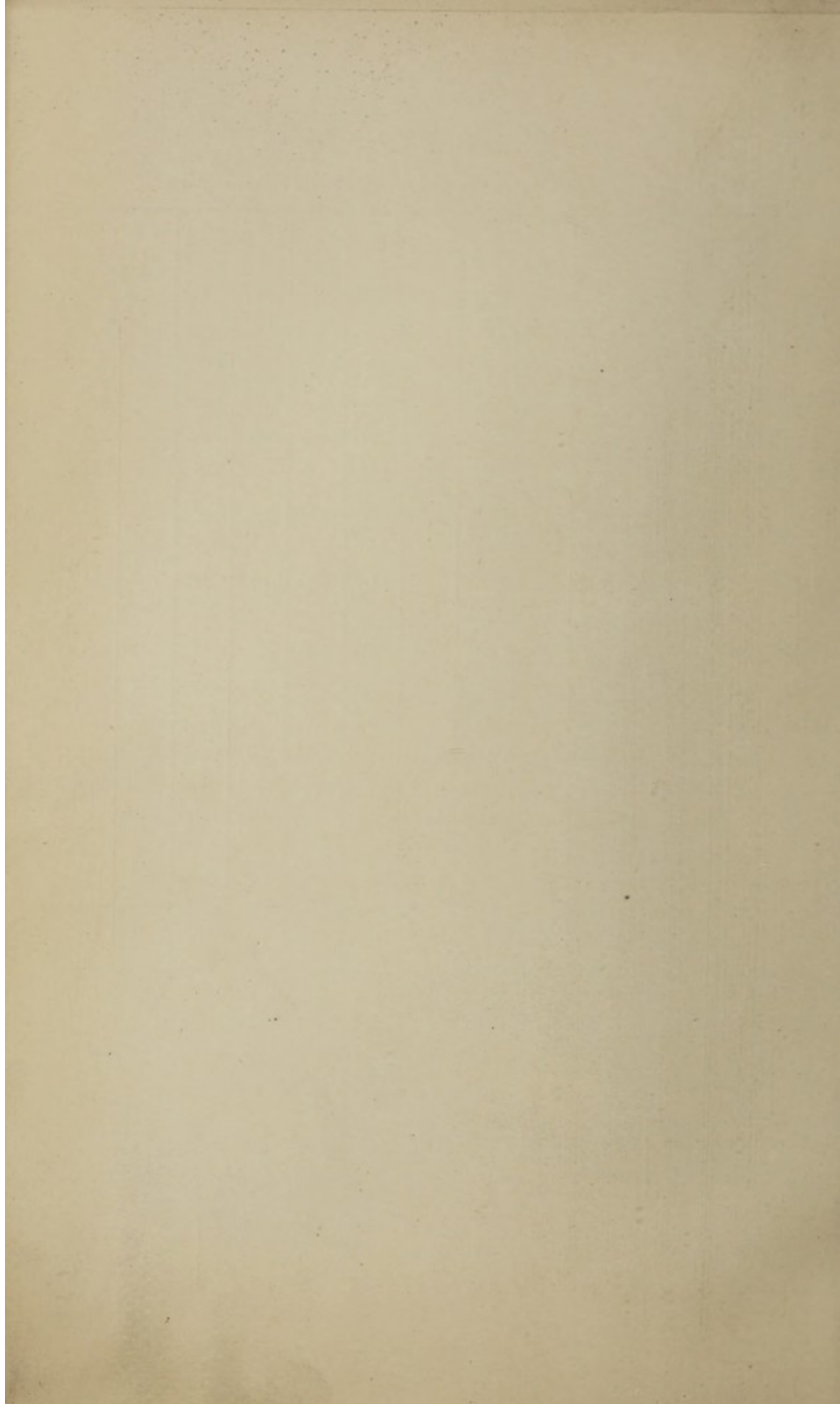


TABLE I
Summary of the results of the experiments on the effect of the concentration of the solution on the rate of the reaction

Concentration of the solution (M)	Rate of the reaction (M/min)
0.1	0.01
0.2	0.02
0.3	0.03
0.4	0.04
0.5	0.05
0.6	0.06
0.7	0.07
0.8	0.08
0.9	0.09
1.0	0.10

The results of the experiments show that the rate of the reaction increases with the concentration of the solution. The rate of the reaction is directly proportional to the concentration of the solution. The rate of the reaction is 0.01 M/min at a concentration of 0.1 M, 0.02 M/min at a concentration of 0.2 M, 0.03 M/min at a concentration of 0.3 M, 0.04 M/min at a concentration of 0.4 M, 0.05 M/min at a concentration of 0.5 M, 0.06 M/min at a concentration of 0.6 M, 0.07 M/min at a concentration of 0.7 M, 0.08 M/min at a concentration of 0.8 M, 0.09 M/min at a concentration of 0.9 M, and 0.10 M/min at a concentration of 1.0 M.

Sm

Mea

Sca

Ty

Epi

Wh

Dip

Cro

En

Asi

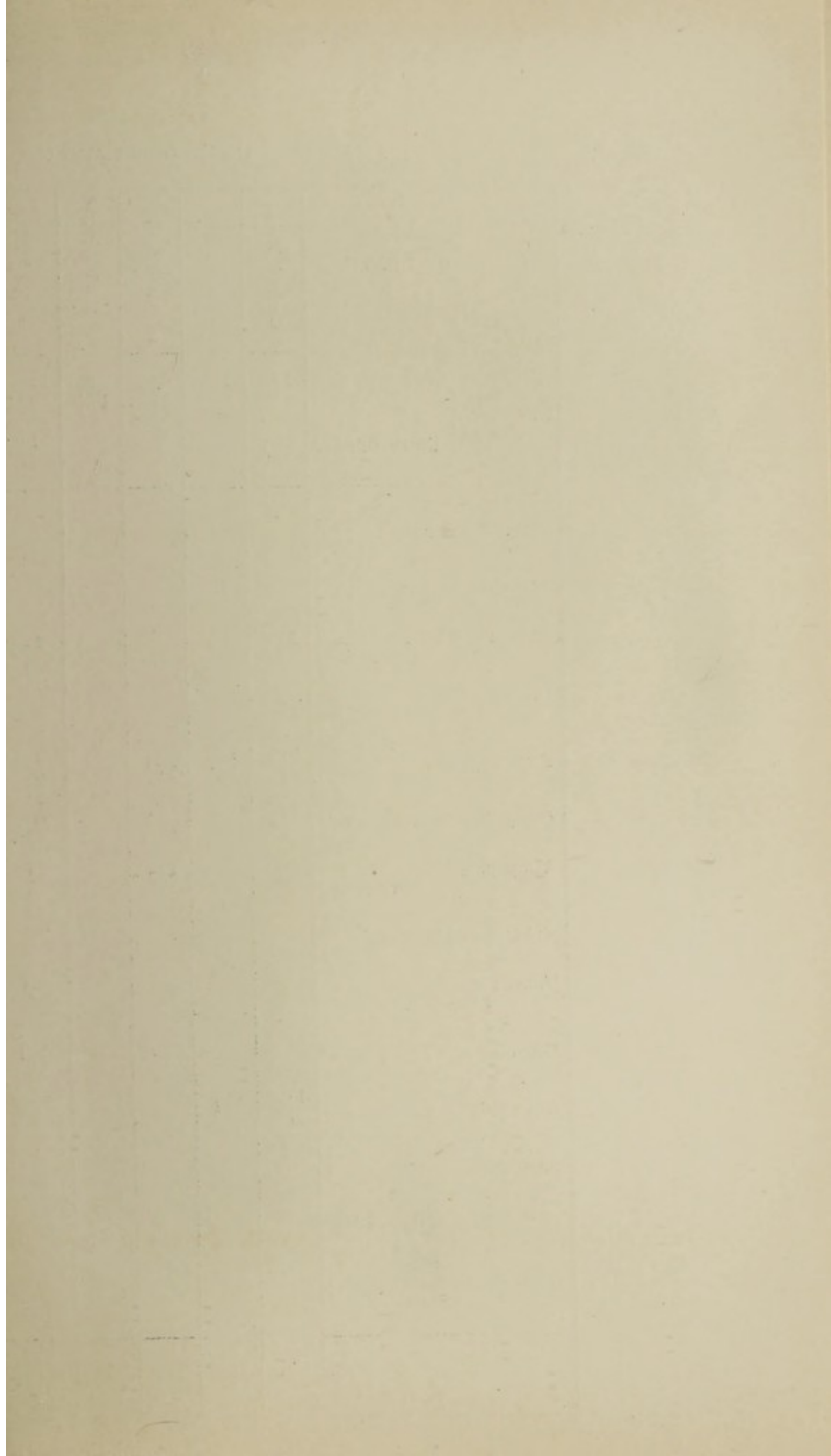
Dia

Ej

E

J





Infantile Mortality

Deaths from stated causes in Week

CAUSE OF DEATH.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.
All Causes, { Certified } Un-Certified }	7 } 9 2 } 1 } 1	2 } 3 1 } 2 } 4	2 } 4 2 } 1 } 1	1 } 1 1 } 1 } 1	11 } 17 6 } 1 } 1	
Whooping Cough }						
Diarrhoea, all forms }						
Enteritis, Muco-enteritis, Gastro-enteritis }	1 } 1				1 } 1	
Gastritis, Gastro-intestinal Catarrh }						
Premature Birth }	3 } 5 2 }	1 } 2 1 }	1 } 1	1 } 1	4 } 9 5 }	
Congenital Defects }	3 } 3		1 } 1		3 } 4 1 }	
Atrophy, Debility, Marasmus }			1 } 1		1 } 1	
Tuberculous Meningitis }						
Tuberculous Peritonitis : Tabes Mesenterica }						
Convulsions }			1 } 1		1 } 1	
Bronchitis }	1 } 1	1 } 1			2 } 2	
Pneumonia }						
Suffocation, overlying }						
Other causes }						
	8 } 10 2 }	2 } 3 1 }	2 } 4 2 }	1 } 1	12 } 18 6 }	

Population, estimated to

Births in the Year. { Legitimate, 488.
Illegitimate, 18.

Deaths from all Ca



