

[Report 1908] / Medical Officer of Health, Gloucester City & Port.

Contributors

Gloucester (England). City and Port Council.

Publication/Creation

1908

Persistent URL

<https://wellcomecollection.org/works/csjkzkrmd>

License and attribution

You have permission to make copies of this work under a Creative Commons, Attribution license.

This licence permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See the Legal Code for further information.

Image source should be attributed as specified in the full catalogue record. If no source is given the image should be attributed to Wellcome Collection.



Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE

CITY OF GLOUCESTER

FOR 1908.

CONTENTS.

	PAGE
GENERAL DESCRIPTION OF DISTRICT	3
SEWERAGE	3-4
WATER SUPPLY	4
VITAL STATISTICS	6
INFANTILE MORTALITY	7
INFECTIOUS DISEASES	9
TUBERCULOSIS	15
SCHOOLS	17
ISOLATION HOSPITAL	20
LODGING-HOUSES	22
HOUSING OF THE WORKING CLASSES	22
HOUSE-TO-HOUSE VISITATION	23
OFFENSIVE TRADES	24
SLAUGHTER HOUSES	24
UNSOOUND FOOD	24
DAIRIES, COWSHEDS AND MILKSHOPS	24
SALE OF FOOD AND DRUGS ACTS	26
SMOKE NUISANCES	26
CANAL BOATS	26
MIDWIVES	27
ABSTRACT OF SANITARY WORK DONE	28
REPORT ON INTERCEPTING TRAPS	29
FACTORY AND WORKSHOPS ACTS—REPORTS	30
CANAL BOAT ACTS—REPORT	34
STATISTICAL TABLES ... ..	...35-42
LOCAL WEATHER RECORDS ... ..	...43-45

REPORT.

G LOUCESTER, situated in the vale of the Severn, which at the City is a tidal river, the tides flowing for over 12 miles above the City, occupies rising ground on the east bank of the eastern arm of that river. The Cross being 66 ft., the top of Wotton pitch 78 ft., and the junction of Starveall and Waterpools Lanes 144 ft. above O.D.

The site is shown in the Ordnance Survey as being on the lower lias clay, but this does not take into account the beds of drift gravel and sand overlying the deeper formation. These beds render the site a good one, and as there is an ample and good water supply from outside the City, there is no need to make use of the old shallow wells (most of which have been closed), a dangerous source of supply in such soil. In other parts there are patches of river silt and of boulder clay.

In recent years the large fringe of outside district taken into the City has afforded good sites for building purposes, and the erection of new and improved dwellings for the artizan class has relieved the former density of population in the older districts. There are none of the "rookeries" to be found in some towns, although some of the courts require improving; and as in other ancient cities some of the houses in the oldest parts are from the lapse of years become somewhat decrepit. But as the result of the continued efforts of the Sanitary Committee, many of the former defects to be found in the older parts are being done away with.

The erection of new buildings is under the supervision of the City Surveyor, and a special building inspector examines and tests the drains and reports to the Improvement Committee.

The system of SEWERAGE may be briefly described as follows :—

§The three main lines follow the valley lines of the three natural watercourses, the Twyver, the Sudbrook and the

Tweenbrook, which originally traversed the City, and which still carry off the flood water. Since 1886 many improvements have from time to time been made, relaying and enlarging the sewers and laying down new ones. And since the extension of the City in 1900, very great additions to the system have been made, the total length of sewers in the City being over 45 miles. The system adopted for ventilating the sewers is by man-holes on the street level and 4-inch and 6-inch shafts, which are put up wherever permission can be obtained. Over 500 of these shafts have been put up and the number is being increased on every available occasion.

In accordance with the bye-laws, sanctioned by the Local Government Board, in the case of new houses, the house drains are separated from the sewers by an "intercepting trap," and where possible provided with man-holes at the traps and at important junctions on the drains, the soil pipes constituting the exit ventilating shafts for the house drains.

The closets are flushed by cisterns 18" x 9" x 7", containing 1½ to 2 gallons.

Thus the method of disposal of the sewerage is by water carriage, the outfalls being into the Severn.

House refuse is collected three times a week from every house and most of it conveyed to the Refuse Destructor. The amount at present varies from 150 to 200 tons per week. This system would work still better if all householders would use portable galvanised iron sanitary bins instead of receptacles of a very miscellaneous character as at present.

The WATER SUPPLY is derived from three sources :

1. Robinswood Hill on the south-eastern boundary of the City is an outlier of the Cotswold range, having a slight capping of inferior oolite and midford sands, and forms a gathering ground for the springs thrown out by the lias clay below. These springs are collected by conduits running round the contour lines of the hill and discharging into the reservoirs 150 ft. above O.D., and having a storage capacity of some 11 million gallons.

2. The Waterworks at Witcombe, some 5 miles eastward from the City, are 300 ft. above O.D. Here there is a watershed area of 1,500 acres formed by an escarpment of the Costwold range, consisting of inferior oolite, midford sands, upper lias clay, marlstone and lower lias clay in descending order. The water collected in this area falls into No. 1 reservoir by five streams, which pass through settling tanks and rough filter beds before entering the reservoir, and is then decanted into the other two reservoirs, which are 2 ft. and 4 ft. 6 in. below it respectively, when all are full. All three reservoirs are constructed in the lower lias clay, and have a total capacity when full of 120 million gallons.

Both at Robinswood Hill and Witcombe the water is filtered by means of Bell Bros.' mechanical filters before passing into the mains. These filters act both bacteriologically and chemically, and only create a loss of 2 lbs. pressure between the inlet and outlets of the filters.

Samples are taken fortnightly from the inlets and outlets of the filters, and examined chemically and bacteriologically by the City Analyst. His reports show that the filters fulfil their purpose, the water being sent to the City clear, bright and in good condition.

The supply from the above sources proving inadequate as the number of houses increased, an Act of Parliament was obtained in 1894 for the purpose of obtaining a supply of water from Oxenhall, near Newent, 11 miles west of the City. Here a well has been sunk 170 ft. into the new red sandstone, from which headings have been driven north and west. An abundant supply has thus been procured, which is pumped into two reservoirs 3 miles from the pumping station, nearly 200 ft. above Gloucester Cross. From thence it gravitates 8 miles to Gloucester by a 14 in. main. Except that this is a hard water, it would be perfect.

From these three sources the City obtains a good and sufficient supply of water, which is maintained at about 22

gallons per head per day, on a total population of 55,000, including the outside population supplied.

The Witcombe and Newent waters coming into the City from opposite sides mix together to a certain extent in the distributing mains.

The rainfall at Witcombe for 1908 was 22·58 inches.

VITAL STATISTICS.

The population of the City, as estimated to the middle of 1908, is 53,176. That is assuming the rate of increase since the census of 1901 to be the same as during the intercensal period 1891-1901. If the estimate is based on the natural increase, that is on the excess of births over deaths, the estimated population would be 52,771.

The total births registered were 1,272, including 58 illegitimates, being a birth-rate of 23·9, being an increase of ·5 on the birth-rate of 1907, which was the lowest rate recorded, the average birth-rate for the past ten years being 28·2.

The total deaths of both residents and non-residents amount to 714, being a rate of 13·4, but if only residents dying in or outside the City are included the deaths amount to 673, being a rate of 12·6, the lowest since 1903.

ENGLAND AND WALES. ANNUAL BIRTH RATES AND DEATH RATES.

	Annual Rates per 1000 living.			Infant Mortality. Annual Death Rate of Infants under 1 year per 1000 Births
	Births	Deaths from all Causes	†Deaths from Seven Chief Epidemic Diseases	
England and Wales ...	26·5	14·7	1·29	121
76 Great Towns ...	27·0	14·9	1·59	128
*142 Smaller Towns ...	26·0	14·0	1·26	124
England and Wales, less the 218 towns ...	26·2	14·7	0·99	110
GLOUCESTER ...	23·9	12·6	1·03	113·1

* Gloucester is included amongst the 142 towns. † Diarrhea is included.

There were 155 deaths of persons at 70 years of age and upwards.

Ages	70 to 75	75-80	80-85	85-90	90-95	95	96
Deaths	33	57	29	28	5	2	1

DEATHS AT ALL AGES.

	1901	1902	1903	1904	1905	1906	1907	1908
Influenza ...	5	6	6	1	22	8	10	1
Phthisis ...	67	53	39	46	55	51	64	50
Other Tubercular Diseases ...	38	48	42	40	32	22	26	21
Bronchitis ...	75	115	63	79	78	54	88	60
Pneumonia ...	25	46	30	42	63	45	55	36
Heart Diseases ...	66	58	60	72	57	61	48	77
Cancer ...	43	37	28	30	33	51	51	49

The death-rate for Phthisis in 1908 was 0·94, the average rate for the previous seven years being 1·07.

For all forms of Tuberculosis the rate was 1·3, and the average rate for the previous seven years 1·1.

For Pneumonia the rate was 0·7, the average rate for the previous seven years being 0·9.

The death-rate of Cancer for the year 1908 was 0·93, the average rate for the previous seven years being 0·75.

The death-rate from the seven chief epidemic diseases is 1·03, the 17 deaths from Whooping Cough and the 27 deaths from Diarrhœa being the chief causes of this rate.

SOME CAUSES OF DEATHS AT ALL AGES, with rates per 1,000 of estimated population :—

Measles	·00	Puerperal Fever ...	·00
Whooping Cough ...	·32	Phthisis... ..	·94
Diphtheria ...	·16	Other Tubercular Diseases	·39
Enteric Fever ...	·04	Cancer	·93
“ Diarrhœa ” ...	·51	Premature Birth ...	·45
Erysipelas ...	·08	Respiratory Diseases ...	1·97

INFANTILE MORTALITY.

PRE-NATAL MORTALITY, STILL-BIRTHS.—During the year 56 infants have been buried in the City Cemetery as still-born, the rate per 1,000 of the total births being 44.

DEATHS UNDER ONE YEAR OF AGE.—In the official Table V. will be found the Mortality from stated causes in weeks and months under one year of age for this year.

In the City the Infantile Mortality rate (per 1,000 births) for 1908 was 113·1, and for the eight years since the extension of the City 117·9.

The chief causes of the infantile deaths were :—

PREMATURE BIRTHS 23, a rate of 18·08 per 1,000 births, the average rate for five years being 20·9.

DEBILITY AND MARASMUS 28, a rate of 22·0, the average rate for five years being 22·9.

These causes of death are to be attributed to the bad health and want of stamina of the mothers, due often to the conditions under which they live and to their poverty. Another cause of importance, according to evidence that has been collected, is the evil effects of alcoholism.

PNEUMONIA AND BRONCHITIS are responsible for 21 deaths, a rate of 16·5, the average rate for five years being 22·3. These diseases were not so prevalent during the year as in 1907.

DIARRHOEAL DISEASES.—Cases of Diarrhoea were more prevalent, there being 28 deaths, 13 of which occurred during the month of August, and in October there were 7 deaths.

Infantile Diarrhoea is essentially a preventable disease due to dirt, the dirt getting into the infant's stomach chiefly by means of its food.

Of late, many Sanitary Authorities have been employing qualified women as Sanitary or Health Inspectors, among whose duties are included visits to mothers for the purpose of instructing them in the importance of general domestic sanitation and the correct feeding of infants, and also the means by which milk and other articles of food may be guarded from becoming contaminated. The last not an easy matter in small houses where no suitable places have been provided for keeping articles of food in.

While good has been done in this way, still more will be done by educating those who will become the mothers of the future in domestic hygiene and in the proper methods of infant management and feeding.

The various midwives working on their own behalf are supplied with stamped postcards so that they may send early information of births to the Medical Officer of Health, and during the year 562 of these postcards have been sent in.

A leaflet giving advice as to the feeding of infants and hints as to the prevention of infantile diarrhoea is then sent to the mothers.

The Committee of the District Nursing Society have also sanctioned the distribution of these leaflets by the midwives on their staff to the mothers attended by them. Altogether during the year 1,142 mothers have received one of these leaflets.

The consideration of the desirability of the adoption of the Notification of Births Act having been referred by the Council to the Sanitary Committee, the Committee applied to the Local Government Board for their advice, who replied :

“ The Board gather that in Gloucester the only arrangement made for utilising information as to births received by the Medical Officer of Health is one for the distribution to the mothers of leaflets containing advice as to the care and feeding of infants. The Board do not regard this procedure as sufficient for the purpose in view.

In their opinion it is usually desirable that personal advice and instruction should be tendered to mothers by female health visitors or by other competent women, acting under the supervision of the Medical Officer of Health, in those cases in which that officer may consider such visits to the mothers expedient.”

INFECTIOUS DISEASES.

Details of the various notifiable diseases are set out in the official Table III. attached to this Report.

DIPHTHERIA.—Seven cases were those of infants not attending school. Thirty-four attended the Public Elementary Schools (10 the infants departments, 24 the upper departments). Five attended other schools, 18 were adults. And four proved not to be cases of Diphtheria. Twenty-six cases were treated at home with three deaths.

Thirty-nine cases were treated in hospital with six deaths, two being in a dying condition when admitted.

As regards the distribution of the cases during the year, there were 16 cases in the first quarter, 8 in the second quarter, 17 in the third quarter, and 27 in the fourth quarter.

Except in the case of one of the elementary schools where two children were most likely infected from a previous case who attended school while suffering from a sore throat, the nature of which at the time was not known, no special school influence could be traced as being the cause of infection.

SCARLET FEVER.—Four cases (two adults and two children) were imported ones. Six cases were due to an outbreak in the children's ward of the General Infirmary. Nine cases were infants not attending school.

Thirty-six cases attended the Public Elementary Schools, (16 the infants departments, 20 the upper departments). Two attended an Elementary School outside the City. Seven attended other schools, and ten were adults.

There was not a fatal case, thirteen cases being treated at home and 61 at the Hospital, the majority of the cases being of a mild type.

As regards the distribution of the cases during the year there were 21 in the first quarter, 14 in the second quarter, 22 in the third quarter, 17 in the fourth quarter. In all 21 cases less than in 1907.

In no case could the infection be traced to school attendance, and it is interesting to note that of the 22 cases in the third quarter, 10 occurred during the summer holidays.

As the average numbers on the books of the Public Elementary Schools of the City, infants, boys and girls were 9,490, the 34 cases of Diphtheria and the 36 cases of Scarlet Fever in children attending school give attack rates per cent of 0·33 and 0·39 respectively which may be considered low ones.

In connection with this it may be noted that in enquiring into the history of 1,069 children from 11 to 15 years attending 12 of the Public Elementary Schools, it was found that 18·8 per cent. had had Scarlet Fever and 3·08 per cent. had had Diphtheria.

The Medical Officer of Health again has to record his opinion of the value the City Hospital has been during the past year, not only as regards the treatment of the patients, but in checking the spread of infection in the City. Again there is the question of school attendance to be considered, a matter of some importance from the financial point of view.

If the first case of Diphtheria or Scarlet Fever is removed to Hospital not only is there less likely to be other cases in the house, but the remaining children can return much sooner to school than would be the case if the patient had been kept at home.

During 1908 35 cases of Diphtheria were removed from 35 houses in which there remained 86 adults and 71 children who did not become infected.

In the case of one family two members were already infected before being removed, and in another family a second case occurred 17 days after the removal of the first case.

As regards Scarlet Fever, in 45 houses there was only one case, the remaining 92 children who were not protected by a previous attack of Scarlet Fever escaping after the removal of the first case. In seven houses there were 16 cases. In five of them the infection was evidently acquired before the removal of the first case. In one house the second case was infected 52 days after the first case was removed from an

outside source. In the remaining house the second case was what is known as a "return case."

It must be borne in mind that if the full benefit of hospital isolation is to be gained there must be early notification of the cases, followed by their *prompt* removal to hospital, and subsequent disinfection of infected rooms, bedding, etc.

"RETURN" CASES.

As there is some difference of opinion as to what cases should be deemed "return" cases, for the purpose of this Report the following definition will be taken.

A "return" case is a new case of Scarlatina which occurs either in the same household, or from direct contact with it within a period of not less than 24 hours, and not more than 28 days after the return of a previous patient (termed the "infecting" case) from hospital. But the acceptance of this definition does not necessarily acknowledge an ætiological relationship between the cases.

During 1908 two cases came under this heading. A girl had been sent home apparently quite well with no signs of "peeling" or discharge from nose or ear. Twelve days after her return home a brother developed Scarlet Fever, but evidence was to be had that he had come in contact with a convalescent who was "peeling" after an attack of Scarlet Fever, while a younger brother and sister also at home escaped.

In another case a child on leaving the hospital was taken to some relatives near Gloucester for nine days before returning home. On returning home it was noticed that she had a nasal discharge which was supposed to be due to a cold, and 13 days afterwards an elder brother developed Scarlet Fever.

In all cases before a patient is discharged from the hospital the following warning is handed to the parents or relatives.

CONVALESCENCE AFTER FEVER.

TO PARENTS, GUARDIANS AND OTHERS.

Although every endeavour is made to send out patients free from infection, it is advisable, as an additional precaution, that they should, as far as possible, be kept away from other children,

including attendance at school, for the first three weeks, after their return home. They should certainly not sleep in the same bed, and, if possible, not in the same room with children who have not had the disease.

It is also advisable that articles used by the patients, such as cups, plates, spoons, handkerchiefs, towels and toys, should during this period be kept distinct from those used by other children.

The above precautions are specially important in the case of those patients suffering from discharge from either nose or ears.

All persons recovering from fever should be warmly clothed, and otherwise protected against cold. Any recently discharged person who complains of sore throat, nose, or ear, or who has a breaking out on the skin, should be at once isolated, and placed under the care of a medical man.

ENTERIC FEVER.

	1901	1902	1903	1904	1905	1906	1907	1908
Cases	6	7	5	8	18	16	15	8
Deaths	1	0	1	2	1	1	3	2

In 1908, one case occurred in the third quarter of the year and seven cases in the fourth quarter.

Four cases were treated in the General Infirmary and the remainder at home where two of the cases ended fatally.

Two of the cases were most likely infected outside the City. In two cases the source of infection could not be traced.

The remaining four had evidently some connection with each other, the cases occurring in three houses in a court and in an adjoining house in the street on to which the court opened. It was in this house that the first case occurred in a man working on the railway line between Gloucester and Bristol. For a week he had Diarrhœa but continued at work until obliged to give up when he saw a medical man at his surgery. He would seem to have improved at first but in three weeks' time had a relapse for which he called in a medical man, and which caused his death in five days. In the meantime two cases from separate houses in the court had been admitted to the Infirmary for indefinite illnesses which were eventually diagnosed as being Enteric Fever.

On these two cases being notified the court and houses were visited and in another house a lad was found who appeared to be ill after an attack of Diarrhoea which occurred shortly after the other cases had been removed to the Infirmary. On examining his blood serum the Widal reaction was obtained. And it was a week after this that the first man had the relapse and called in medical advice.

There was no defects in the drainage to be detected which had been put in order within a few years. The houses in the court had been kept in a dirty condition, and the most probable explanation of the cases was that articles of food had become infected through the medium of dust or flies.

PUERPERAL FEVER.—The five cases were cases attended by midwives, four of them being removed to the Infirmary for treatment and none of them ended fatally, although one case developed mania and had to be removed to the Asylum.

ERYSIPELAS.—Most of the 31 cases were mild ones with the exception of four that died.

CHICKEN-POX.—Of the 158 cases three occurred in young adults.

MEASLES.—No deaths were recorded and this disease was not prevalent this year. The only reliable source from which the medical Officer of Health receives information of cases of Measles is through the "Notification Cards" sent by the teachers of the Public Elementary Schools. Twenty-four cases being notified during the year.

Under 1 year	1 to 5	5 to 15
0	11	13

MUMPS.—In the beginning of the year 281 cases were notified by the teachers.

CEREBRO-SPINAL FEVER.—The medical men practising in the City have been invited to voluntarily notify cases of this disease. A case was reported in May, being that of a young

woman who died, the diagnosis being confirmed by a post-mortem examination. The case would appear to have been a sporadic one.

GLANDERS, ANTHRAX AND RABIES.—No cases of these diseases have occurred in man in the City during the year.

MR. G. HOLTHAM, Veterinary Inspector under the Diseases of Animals Act, 1894, reports that there have been no cases of Glanders or Anthrax in animals in the City.

TUBERCULOSIS.

The following tables give the deaths for five years :—

PHTHISIS.

Year	All Ages	Under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwards
1904	46	0	0	5	13	28	0
1905	55	1	4	1	14	32	3
1906	51	0	2	2	8	37	2
1907	64	5	4	3	16	36	0
1908	50	0	3	1	15	30	1

OTHER TUBERCULAR DISEASES.

Year	All Ages	Under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwards
1904	40	13	10	6	3	6	2
1905	32	13	13	2	2	2	0
1906	22	9	3	5	1	4	0
1907	26	7	6	2	3	8	0
1908	21	4	4	3	5	5	0

The Phthisis death-rates were for 1906, 0·9; 1907, 1·3; 1908, 0·94 per 1000 of the estimated population,

DEATHS FROM PHTHISIS IN PUBLIC INSTITUTIONS.

Year	Workhouse Infirmary.	General Infirmary.
1904	4	0
1905	6	0
1906	4	1
1907	2	2
1908	5	2

There is no special provisions as regards Hospital accommodation for either early or late cases of Phthisis.

As regards the number of persons suffering from this disease if the number of deaths in the year is multiplied by three an approximate estimate is got. Thus in 1908 there would be at least 150 persons affected.

The local Registrars of Deaths send notice at once to the Medical Officer of Health of all deaths from Phthisis who then arranges for any necessary disinfecting.

The Local Government Board have issued an Order (dated 18th December, 1908) in pursuance of Section 130 of the Public Health Act as amended and extended by the Public Health (London) Act, 1891, and the Public Health Act, 1896, to provide for the notification to Medical Officers of Health of cases of Pulmonary Tuberculosis occurring amongst the inmates of Poor Law Institutions, or amongst persons under the care of District Medical Officers, and for the taking of certain measure in such cases.

It is provided in the Order *inter alia* that nothing in the Regulations shall have effect so as to apply or to authorise any one to put in force with respect to a person in relation to whom a notification has been made any enactment which renders him or any other person liable to a penalty or subjects him to any restriction, prohibition, or disability affecting him or his employment, occupation, means of livelihood, or residence on the ground of his suffering from Pulmonary Tuberculosis.

The Board in their circular letter point out that subject to the above it is desirable that Sanitary Authorities acting on the advice of their Medical Officers of Health should utilise their powers for the purpose of preventing the spread of infection from Pulmonary Tuberculosis. The Order also confers some special powers on Councils for this purpose.

The Board state that it is proposed to issue a memorandum by their Medical Officer setting out the appropriate action that can be taken under these powers.

NOTIFICATION OF COMMUNICABLE DISEASES
BY SCHOOL TEACHERS.

The Regulations of the City Education Committee as to Schools and Communicable Disease are still in force. The Medical Officer of Health has much pleasure in recording his indebtedness to the various teachers for their assistance in carrying out these Regulations, which on several occasions have been the means of tracing cases of Scarlet Fever and Diphtheria which otherwise would not have been discovered, and so have become centres of infection.

GLOUCESTER EDUCATION COMMITTEE.

Regulations as to Schools and Communicable Diseases.

INFECTIOUS FEVERS, ETC.

1. No Scholar, Teacher or other Officer of the Committee shall attend School while suffering from Small-pox, Scarlet Fever or Scarlatina, Typhoid (or Enteric) Fever, Diphtheria, Membranous Croup, or other notified disease; Whooping Cough, Chicken Pox, Measles, German Measles, Mumps, Ringworm, or Itch.

“ Sore Throat ” should be carefully watched because it often betokens mild Diphtheria, or incipient Scarlet Fever.
2. No Scholar shall attend school from a house where there is, or has been recently, a case of Small-pox, Scarlet Fever, or Scarlatina, Diphtheria, Membranous Croup, or other *notified* disease, until a certificate has been received from the Medical Officer of Health.
3. No Scholar shall attend an *Infants'* School from a house where there is a case of Measles, German Measles, Whooping Cough, Chicken Pox, or Mumps; but Scholars in departments for older children *who have previously had the disease in question* need not be excluded.
4. Teachers or other Officers of the Committee living in infected houses should send written notice to the Secretary and also to the Medical Officer of Health, who will advise and decide as to the desirability of their continuance at School.

5. Every Head Teacher suspecting that any Scholar is suffering from a communicable disease mentioned in Regulation I., or that any Scholar comes from an infected house, shall temporarily exclude the suspected scholar and advise that private medical aid be at once sought.

In the case of Small-pox, Scarlet Fever or Scarlatina, Typhoid (or Enteric) Fever, Diphtheria, Membranous Croup, Chicken Pox, not previously notified, and in every case of Whooping Cough, Measles, German Measles, Mumps, *immediate* notice should be sent to the Medical Officer of Health on the pink card.

Persistent Sore Throat should be also notified to the Medical Officer of Health.

6. In regard to cases visited at their homes, the Attendance Officer shall furnish the Medical Officer of Health, at the Sanitary Office, the Guildhall, with *immediate* notice of any case, or suspected case, of the diseases mentioned in Regulation 5, in respect of which the Attendance Officer has reason to suspect that information has not been already sent to the Medical Officer of Health.

The action to be taken in cases reported under Regulations 5 and 6 will be communicated to the Medical Officer of Health on the pink card, which will be returned to the Head Teacher as quickly as the necessary investigation can be completed.

GENERAL SANITARY CONDITION OF PUBLIC ELEMENTARY SCHOOLS.

The points to which attention were chiefly directed were :—
The existence of any over-crowding, the condition of the drainage systems, sanitary conveniences and lavatory accommodation, provision of drinking water, ventilation of class-rooms (taking into consideration the method of heating) and cloak-room accommodation. This last being of importance from a sanitary point of view, for inadequate accommodation not only prevents the drying of outer garments in wet weather, thus causing injury to the health of the children, but if an infected article is put into a place where all the coats, hats, etc., are heaped together the infection is much more likely to be

spread. Again, if the cloak-rooms are not ventilated and separated from the class-rooms the smells from the clothing must of necessity gain access to the class-rooms and so foul the air.

OVERCROWDING of portions of a school was noted in two instances.

DRAINAGE.—In 1907 defective drainage was found in five schools, in four instances this was put right, but in the fifth instance, that of an old school taken over by the Council, the defective drainage has not been dealt with as this school will shortly have to be replaced by a new building.

SANITARY CONVENIENCES were found dirty in one instance, and in the old school above mentioned are unsatisfactory.

LAVATORY ARRANGEMENTS in most of the older schools must be deemed insufficient, and in some instances but little use seems to be made of what arrangements there are.

PROVISION OF DRINKING WATER.—City Water is laid on to all the schools.

VENTILATION in the newer schools is good, in the others fair.

CLOAK-ROOMS.—In two of the older schools the accommodation is insufficient, but in remainder fair, in the newer schools good, and in these the cloak-rooms are fitted with hot water or steam pipes.

EDUCATION (ADMINISTRATIVE PROVISIONS) ACT, 1907.

At a meeting of the City Council on 24th June, 1908, it was resolved that the Medical Officer of Health should undertake to devote his whole time to the duties of the Council as Urban and Port Sanitary Authorities, and as the Local Education Authority, and that his duties should include the medical inspection of children in the Public Elementary Schools. And at a meeting on the 28th October, 1908, the Council confirmed

a recommendation of the Education Committee that the Medical Officer of Health be appointed School Medical Officer for the purposes of the Code, 1908.

Thus the Public Health and School Medical Services for the City have become branches of one service.

THE METHOD OF DEALING WITH INFECTIOUS DISEASES.

On receipt of a notification the house is visited, and if it is a case for removal to hospital, this is done forthwith, the bedding and other infected articles being removed to the steam disinfectant, and the rooms disinfected with formic aldehyde in vapour or in the form of a spray. Then the sanitary arrangements are thoroughly examined, and any defects discovered put right.

When it is not requisite to remove the case leaflets are left giving instructions as to the precautions that should be taken, and if necessary an Inspector repeatedly calls to see that the instructions are attended to.

In all cases where a child is ill or in an infected house notice is sent to the Head Teacher of the school attended by such child, and when the child is fit to return to school another notice to that effect is sent.

Notice is also sent to the Librarian at the Public Library, and should there be any books in an infected house, borrowed from the Library, they are sent to the Isolation Hospitals.

ISOLATION HOSPITALS.

THE FIELD FARM HOSPITAL (Small-pox only) has not been required this year. This Hospital, which consists of temporary buildings, is a little over two miles from the Guildhall. There was accommodation for 20 patients, and it has been kept in readiness so that patients can be taken in at any time, on a few hours' notice. There is ample room on the site (which has been approved by the Local Government Board) for erecting

further temporary buildings or tents on an emergency, and the City water mains have been extended to the site.

During a thunderstorm in July one of the Ward blocks (ten beds) was struck by lightning and burnt down. It has been decided to replace this block by a brick building according to model plans of the Local Government Board with accommodation for eight patients in two wards. Lightning conductors have been fixed on the other buildings.

THE CITY HOSPITAL AT OVER is about a mile and a half from the Guildhall, and has accommodation for 40 patients in three pavilions (8 wards), a number just sufficient for dealing with cases of infectious diseases (other than Small-pox) arising in the City.

There is an efficient nursing staff, consisting of a matron and charge nurses, who are fully trained, and probationer nurses, and these nurses will be available for duty at any of the Isolation Hospitals.

THE CITY HOSPITAL.

In Hospital January 1st, 1908. December 31st, 1908.

Scarlet Fever	8	2
Diphtheria	3	0

ADMITTED DURING 1908 :

Scarlet Fever—61 cases from the City.

„ „ 2 cases from Gloucester Rural District.

No Deaths.

Average stay in Hospital 40·7 days.

Diphtheria—39 cases from the City. 6 Deaths.

Average stay in Hospital 20·3 days.

Of cases that recovered 22·7 days.

Of cases that died 7·3 days.

All the fatal cases were in a serious condition on admission two of them dying very shortly after being admitted.

THE DISINFECTING APPARATUS, which is in the grounds of the City Hospital, is of Alliot and Paton's type of Lyons

Disinfector, and is used for disinfecting articles from infected houses in the City as well as for hospital purposes. Separate vans are used for the conveyance of infected and disinfected articles.

Not including articles from the City Hospital, the following articles have been disinfected during the year :—

Pillows	263
Beds and Mattresses	277
Blankets, Sheets, etc.	411
Other Articles	333

COMMON LODGING HOUSES.

There are nine of these houses registered, all of them being situated in or near Lower Westgate Street. No case of infectious disease has occurred in any of them. They are kept in fair order by the proprietors, who are always willing to give any information that may be required of them. As a number of tramps are sent to these houses by the Workhouse Authorities, special attention has to be paid to them lest disease should thus be brought into the City.

HOUSES LET IN LODGINGS OR TENANTED BY MEMBERS OF MORE THAN ONE FAMILY.

There are twelve now on the register, an increase of two during the year. There is a certain poor class of house in the City which the owners let out in rooms to different families, or in which the chief tenant does the same. It is most important that all such houses should be registered under the Bye-laws, as in this way only can effectual supervision be kept over them, and cleanliness enforced.

HOUSING OF THE WORKING CLASSES.

During the year closing orders for five houses have been applied for under the Acts, and granted by the Magistrates. Three other houses have been closed voluntary by the owner

on an intimation being made that closing orders would be applied for, and two houses have been put into good order by the owner.

There is a certain class of house which, while not in such a bad condition as to justify proceedings being taken for closure of the same, still require a certain amount of repairs, etc., to bring the sanitary condition up to modern requirements. This class of house is the cause of a good deal of trouble, as the owners either have not got the necessary capital or are unwilling to spend the amount required to put the property in good order. Still during the year a good deal of work has been done to improve such property. In the older parts of the City it must be recognised that the conditions of a good many of the houses are very indifferent, and that they are bound to deteriorate as years go on.

SYSTEMATIC HOUSE-TO-HOUSE VISITATION.

The Medical Officer of Health and the Sanitary Staff have continued this work during the year. Selecting small areas at a time, and when necessary, sending preliminary notices to the owners of the property, and following these up by repeated visits until the defects are remedied.

During the year 442 houses were thus inspected, and the following notices given :—

DEFECTS IN DRAINAGE :—	Complied with	Outstanding
Verbal notices 11	8	3
Written notices 108	88	20
OTHER INSANITARY CONDITIONS :—		
Verbal notices 2	2	0
Written notices 15	15	0
TOTAL NOTICES :—		
Verbal 13	10	3
Written 123	103	20

OFFENSIVE TRADES.

Supervision has been kept over the various places where these trades are carried on. One place used for melting and extracting fat and soap boiling has not been the cause of so many complaints as compared with former years.

The shops where fish-frying is carried on are all supplied with special apparatus, and complaints have only been made regarding one shop where faulty apparatus had been put in.

SLAUGHTER-HOUSES.

There are 29 places where animals are slaughtered, a few of which come up to a moderate standard, but many of them are in an unsuitable state. Most of the principal butchers do their best to keep the houses in as good order as possible. A new yearly licence has been granted the owner having improved and put in order premises that were formerly used for slaughtering pigs only.

Three notices for the abatement of nuisances at slaughter-houses were served during the year and complied with.

As regards meat inspection as long as private slaughter-houses exist so long will it be difficult to carry out any effective system of inspection.

UNSOUND FOOD.

Twenty-five stone of fish were seized by the Inspector and destroyed under a Magistrate's Order.

No carcasses or parts of carcasses showing signs of tuberculosis have been met with.

DAIRIES, COWSHEDS AND MILKSHOPS.

Regulations approved of by the Local Government Board are in force.

THERE ARE NOW ON THE REGISTER :

Milkshops in the City	...	...	109
Cowkeepers in the City	...	...	5
Milksellers residing without the City			42
Milksellers registered during the year			17
Milksellers giving up during the year			8

And there are four Cowsheds in the City.

PREMISES ON WHICH MILK IS SOLD :

Dairy Produce only	...	...	...	8
Refreshment houses	...	...	...	16
Provision shops	...	...	...	50
Greengrocers	...	...	...	8
Bakeries	...	...	...	3
Sweetshops	...	...	...	9
Dwelling-houses	...	...	...	20
Draper's shop	...	...	...	1
Public House	...	...	...	1
TOTAL	...	...	...	116

From 44 of these the amount sold per day does not exceed one gallon. In one instance a case of infectious disease (Scarlet Fever) was notified on one of these premises and removed to the City Hospital, and all necessary precautions taken to prevent any spread of infection.

Certain precautions to be taken by persons selling milk by retail against infection or *contamination* of the milk are prescribed in the Regulations, and frequent visits are paid to the various places where milk is sold to detect any neglect in this respect. In some cases it is most difficult to get the retailers to cover the milk vessels and so protect the milk from dust, etc., but on the whole improvement all round can be recorded.

COWSHEDS.—There are four in the City situated in part of the added district. These are old and in a poor condition.

In all cases the cows are not kept in these sheds except in very severe weather or at milking time.

SALE OF FOOD AND DRUGS ACT.

The following samples have been taken and analysed by the City Analyst.

JANURAY 1ST TO DECEMBER 31ST, 1908.

	Preliminary Samples	Formal Samples
Milk	87	31
Butter	—	11
Beer	12	—
Essence of Beef	—	4
Margarine	—	4
Rum	1	—
	100	50

Two of the formal samples of milk supplied by the same milkman were reported to contain 11 per cent. and 17 per cent. added water.

A fine of £15 was imposed by the Magistrates.

One of the informal samples of milk was reported "poor," others to contain 8 per cent. and 23 per cent. added water, further samples from the same milkmen were reported genuine.

A sample of milk blended butter was reported to contain 24 per cent. added water.

The samples of essence of beef were liquified and contained poisonous ptomaines.

MILK.—No samples of milk are taken for the purpose of bacteriological examination for the detection of tuberculous milk.

SMOKE NUISANCES.

There have been but few complaints this year, and if properly trained stokers were employed and suitable fuel and boilers used by the various firms there need be hardly any cause for complaint.

CANAL BOATS.

A copy of the Statutory Report in accordance with the Canal Boats Acts, 1877-1884 is appended.

On the 31st December, 1908, 183 canal boats belonging to this district were in use, being as a whole of a good class.

When at Gloucester, the boatmen and their families do not live on board, but in a fair class of house.

No case of infectious disease has been reported on board any canal boat.

MIDWIVES' ACT, 1902.

The Council have appointed the Sanitary Committee to act for them as the Local Supervising Authority and the Medical Officer of Health as Executive Officer for the purpose of the Act, and the Regulations made by the Central Midwives' Board under the Act.

Exclusive of those who only act as monthly nurses, or who do not attend any cases, there have been 28 midwives practising at some time or other during the year. One at the Union Infirmary, seven at the District Nurses Home, and twenty working on their own account, two of whom live a short distance outside the City.

The necessary visits of inspection have been made, and on the whole a satisfactory report can be made considering the class to which many of these midwives belong, but in the cases of the illiterate midwives difficulty still exists as regards getting them to keep the register of cases in a proper manner.

During the year 1,064 maternity cases have been attended by midwives whose names are on the roll. The total number of births registered during the year being 1,272, and in addition there having been 56 still-births.

In accordance with the rules of the Central Midwives' Board 113 notifications of sending for a Medical Practitioner and 35 notifications of cases of still-birth have been received from midwives during the year.

Five cases of "Puerperal Fever" have been notified among the cases attended by midwives, all of whom recovered.

ABSTRACT OF SANITARY WORK DONE DURING THE YEAR 1908.

INSPECTIONS MADE, NOTICES SERVED, AND WORK DONE.			
Inspections—General	..	...	4719
Ditto House to House	...	...	442
Ditto Dairies, Milkshops, &c.	...	...	297
Ditto Slaughter Houses, Meat, &c.	..	...	1280
Ditto Factories, Workshops, Marine Stores, &c.	...	...	1722
Ditto Lodging Houses, &c.	...	..	484
Ditto Smoke observations, &c.	...	..	36
Visits, &c.—Infectious Diseases	...	...	1236
Ditto Notifications to Schools	...	...	515
			10,731
Notices outstanding December 31st, 1907...	...	...	31
Notices in 1908, Verbal	...	...	279
Ditto Written	...	...	466
Ditto Statutory	...	..	0
			776
Total Notices complied with	..	...	705
Notices outstanding December 31st, 1908...	...	...	61
Drain Tests—Chemical	...	...	65
Ditto Water...	...	...	119
Ditto Smoke	...	...	664
Drains and Water Closets cleared	...	...	145
New Drains or Soil Pipes	...	..	68
Intercepting Traps	...	...	39
Inspection Chambers	...	...	44
Ventilating Shafts and Air Inlets	...	...	86
Sink Waste Pipes disconnected	...	...	12
New Gully Traps and Troughs	...	...	362
New W.C.'s, W.C.'s repaired, New Basins, &c.	..	...	197
New Flush-boxes, Flush-boxes repaired, &c.	...	...	88
Water supply to Closets, Urinals, &c.	...	...	40
Yard Paving, Spouting and Roofs repaired	...	...	63
City Water laid on	...	...	1
Overcrowding abated	...	...	15
Swine, &c., removed...	...	...	8
Manure removed	...	...	38
Houses cleansed, &c.	...	..	36
Houses Disinfected, &c.	...	...	158
Bakehouses and Workshops limewashed	...	...	23
Miscellaneous	...	...	152
			2423

RECORD OF A SYSTEMATIC INSPECTION OF ACCESSIBLE
INSPECTION CHAMBERS AND INTERCEPTING TRAPS
MADE 1907-1908.

I. Total number examined, 256.

II. The number of cases in which

(a) The intercepting trap is blocked.

(b) An accumulation of sewage in chamber.

(c) Though no accumulation at present exists, appearance of the chamber shows that there has been an accumulation at some previous time.

(d) The "cap" of raking or cleansing arm has been displaced.

(a and b)	4	(c and d)	2
(b)	2	(c)	15
(a, b, and d)	9	(d)	31
(b and d)	3		—
			66
Total found in good order			109

Causes of defects found were :—

a and b. No. 1. S. trap, insufficient fall to drain.

No. 2. Bad form of trap.

No. 3. Ditto.

No. 4. Backing up from sewer.

b. Nos. 1 and 2. Discharge from branch drain on to one side of chamber.

a, b and d. Assumed cause of a and b is the "caps" being displaced.

In Nos. 7 and 8, Backing up from sewer.

b and d. Assumed cause of b and d.

c. No. 1. Inlet and outlet of trap almost level.

Nos. 2, 3, 4, 5, 10, 12, and 13, Backing up from sewer.

No. 6, Unknown.

Nos. 7, 14 and 15, Drain and trap too large.

Nos. 8 and 9, Do. do. and insufficient fall.

No. 11, Badly constructed branch channel.

d. "Cap" not being fixed in a proper manner.

NOTES.

Where a fair make of intercepting trap is used with a drain no larger than is necessary for the work it has to do *good conditions* exist.

In this City the trap is greatly handicapped by conditions which have no right to exist :—

I. EXCESSIVE SIZE AND BAD MAKE OF THE TRAP USED.

Many of the traps fixed have their inlet and outlet on same level.

II. EXCESSIVE SIZE OF DRAIN.

With very few exceptions is anything larger than a 4-inch drain required in this City, but until quite recently the rule has been to provide a 6-inch drain even for a single small house.

III. INSUFFICIENT FLUSH TO W.C.

Only a small percentage of the flushboxes are syphonic in action or contain more than two gallons of water and the flush pipes with some few exceptions are not of a larger internal diameter than $1\frac{1}{4}$ -inches, in many cases only 1-inch.

FACTORY AND WORKSHOP ACT.

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Inspections.	Number of Written Notices.	Prosecutions.
Factories, including Factory Laundries ...	304	0	0
Workshops, including Workshop Laundries	707	0	0
Workplaces, other than Outworkers' premises included in Part 3 of this Report ...	348	0	0
Total	1359	0	0

2.—DEFECTS FOUND.

Particulars.	Number of Defects.			
	Found.	Remedied.	Referred to H.M. Inspector.	Prose- cutions.
<i>Nuisances under the Public Health Acts—</i>				
Want of cleanliness ...	16	16	0	0
Want of ventilation ...	3	2	0	0
Overcrowding ...	3	3	0	0
Want of drainage of floors ...	0	0	0	0
Other nuisances ...	18	18	0	0
Sanitary accommodation insufficient	8	8	0	0
„ unsuitable or defective	3	3	0	0
„ not separate for sexes	2	2	0	0
<i>Offences under the Factory and Workshop Act—</i>				
Illegal occupation of underground bakehouse (S. 101) ...	0	0	0	0
Breach of special sanitary requirements for bakehouses (SS. 97 to 100) ...	11	11	0	0
Other offences ...	8	8	0	0
Totals	72	71	0	0

Standard of sufficiency, one closet to 25 or under.

Section 22 of Public Health Acts Amendment Act in force here.

3.—HOME WORK.

	Number of Lists	Outworkers
Home Work. Lists of Outworkers (Sec. 107)—		
Making Wearing Apparel	50	221
Carding, &c., of Buttons, &c.	2	31
Paper Bags and Boxes	2	2
	54	254
Addresses of Outworkers forwarded to other Councils ...		20
Notices served on Occupiers as to keeping or sending Lists		25
Inspections of Outworkers' premises		251
Outwork in unwholesome premises (Sec. 108)—		
Instances		5
Notices served		5
Outwork in infected premises (Sec. 109, 110)—		
Instances		1
Notices served		1

4.—REGISTERED WORKSHOPS.

Workshops on the Register (S. 131) at the end of the year ...	235
Bakehouses	73
	308
Total number of workshops on Register	

5.—OTHER MATTERS.

Class.	No.
Matters notified to H.M. Inspectors of Factories—	
Failure to affix Abstract of the Factory and Workshop Act (S. 133)	4
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Act (S. 5)—Notified by H.M. Inspector	12
Ditto—Reports (of action taken) sent to H.M. Inspectors ...	11
Other	3
Underground Bakehouses (S. 101)—	
Certificates granted during the year	0
In use at the end of the year (both in good order)	2

W. M. HOPE, D.P.H.,

Medical Officer of Health.

January 1st, 1909.

FACTORIES AND WORKSHOPS.

Systematic visits of inspection have been made to all Factories, Workshops and Workplaces; the total number of inspections being 1,359. Offences under the Factory and Workshops Act were found to exist in nineteen cases, and in 43 nuisances under the Public Health Acts. These have all been remedied with the exception of one case, *viz.*, a workshop being without means of ventilation; arrangements have been made, however, to deal with this matter which will prove quite satisfactory.

BAKEHOUSES.

Seventy-three Bakehouses were in occupation during the year and have been periodically visited. Nuisances under the Public Health Acts have occurred in 10 instances but these were abated promptly, upon notices being served.

HOME WORK.

The number of firms registered as employing Homeworkers is 27. These firms have to send twice yearly, at fixed periods, lists of the names and addresses of the Homeworkers employed by them. In several instances considerable difficulty has been experienced in obtaining these lists.

The names of 127 Homeworkers have been received, and the premises occupied by them periodically inspected, as in the case of Workshops.

Nuisances existed in five instances. The causes of complaint were remedied upon the persons responsible for the nuisances being served with formal notices.

Homework was temporarily prohibited in one case on account of Infectious disease occurring on the premises.

Some of the offences or nuisances dealt with :—

<i>Tailor's Shop</i> ...	...	Closed as unsuitable.
<i>Collar Works</i> ...	...	Insufficient w.c. accommodation.
<i>Sugar Boiler</i> ...	...	Dirty premises.
<i>Bakery</i> ...	...	Drains choked.
<i>Pin Works</i> ...	...	Insufficient w.c. accommodation.

<i>Jam and Pickle Works</i>			w.c.s communicating directly with workrooms.
<i>Saw Mills</i>	...	...	No sanitary accommodation.
<i>Tailor</i>	...	...	Floor and roof of workshop in a dangerous condition.
<i>Tailor</i>	...	...	Defective drains.
<i>Building Contractor</i>	...		Defective and unventilated w.c.
<i>Bakehouse</i>	...	...	Defective sanitary arrangements.
<i>Bakehouse</i>	...	...	w.c. communicating directly with bakehouse.
<i>Shirt Works</i>	...	...	Insufficient sanitary accommodation.
<i>Shirt Works</i>	...	...	Means of escape in case of fire unsatisfactory.
<i>Oil Mills</i>	...	...	No sanitary accommodation for women
<i>Tailor</i>	...	...	No separate sanitary accommodation for the sexes.
<i>Dressmaker</i>	...	...	Overcrowding.

J. W. TIBBITS,

*Inspector for the purposes of the Factory
and Workshops Act.*

City of Gloucester.

REPORT FOR 1908.

1.—The Inspector of Nuisances, MR. JOHN OWNER, is appointed Canal Boat Inspector.

2.—802 Inspections of Canal Boats have been made during 1908.

3.—Infringements discovered and dealt with :—

<i>a</i>	Registration	...	...	...	...	0
<i>b</i>	Notification of change of master	...	...	...	...	0
<i>c</i>	Certificates	...	...	...	...	0
<i>d</i>	Marking	...	...	...	...	1
<i>e</i>	Overcrowding	...	...	...	...	0
<i>f</i>	Separation of sexes	...	...	...	...	0
<i>g</i>	Cleanliness	...	...	...	...	1
<i>h</i>	Ventilation	...	...	...	...	0
<i>i</i>	Painting	...	...	...	...	2
<i>j</i>	Provision of wates vessel	...	...	...	...	0
<i>k</i>	Removal of bilge water	...	...	...	...	0
<i>l</i>	Notification of Infectious Disease	...	...	...	...	0
<i>m</i>	Admittance of Inspector	...	...	...	...	0
<i>n</i>	Cabins damp or leaking	...	...	...	...	0

4.—No legal proceedings have been instituted in connection with the Canal Boats during 1908.

5.—All infringements discovered have been dealt with by means of the usual complaint note, and in a few cases by verbal notice to the owners. Thirty-six Complaint Notices have been received from other Authorities, and have been attended to.

6.—No case of Infectious Disease has been reported on a Canal Boat during 1908.

7.—No boat has been detained for the purpose of cleansing or disinfection.

8.—Two boats were re-registered during 1908.

Number of boats in use, January 1st, 1908	...	183
No longer in use	.....	7
		176
New boats registered during 1908	...	7
Number of boats in use, December 13st, 1908		183

City of Gloucester

STATISTICS FOR 1908.

Area of City as extended in 1900 2315 acres
(Including 25 acres of inland water)

New Houses, etc., built in City, 1908—

New Houses	...	...	...	...	...	95
Shops	...	...	...	...	...	3
Petty Sessional Court	..	...	...	...	...	1
Girls' High School	...	...	...	...	...	1
					—	100
Factory (addition)	...	...	...	...	...	1
Stables, Workshops, etc.	...	...	...	...	...	41
Alterations and Additions	...	...	...	...	...	42
Premises re-built	...	...	...	...	...	2
Roads	...	...	...	...	...	2
					—	88
						<u>188</u>

Houses supplied with City Water at end of 1907 ... 11,891

Houses supplied with City Water during 1908 100

Total number of Houses supplied with City Water end
of 1908 11,991

R. READ,

City Surveyor.

CITY SURVEYOR'S OFFICES,

GUILDHALL, GLOUCESTER,

18th January, 1909.

Table 1.

County Borough of Gloucester.

Vital Statistics of Whole District during 1908 and previous Years.

YEAR.	Population estimated 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 Institutions in the District.	Deaths of Residents registered in Public Institutions 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 1,000 Births registered.	Number.	Rate.*					
1	2	3	4	5	6	7	8	9	10	11	12	13
1898	... 41307	1315	31·8	201	152·8	737	17·8	...	43	...	694	16·8
1899	... 41674	1360	32·6	211	155·1	866	20·8	...	62	...	804	19·3
1900	... 42021	1298	30·9	155	119·4	743	19·7	57	53	18	708	16·8
1901†	... 48134	1378	28·6	154	111·7	694	14·4	133	66	19	647	13·4
1902	... 48859	1360	27·8	176	129·4	793	16·2	148	53	17	757	15·5
1903	... 49594	1356	27·3	116	85·5	655	13·2	153	65	13	603	12·2
1904	... 50340	1344	26·7	181	134·6	748	14·9	141	41	27	734	14·6
1905	... 51098	1381	27·0	167	120·9	763	14·9	141	58	32	737	14·4
1906	... 51867	1455	28·0	176	120·9	763	14·7	153	50	30	712	13·7
1907	... 52435	1229	23·4	157	127·7	793	15·3	178	74	34	753	14·3
Averages for years 1898-1907	47732	1347	28·2	169	125·4	745	15·6	...	56	...	715	14·9
1908	... 53176	1272	23·9	114	113·1	714	13·4	155	41	37	673	12·6

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

† First Year of City Extension.

I.	II.	III.
Institutions within the District receiving sick and infirm persons from outside the District.	Institutions outside the District receiving sick and infirm persons from the District.	Other Institutions, the deaths in which have been distributed among the several localities in the District.
General Infirmary Gloucester Workhouse St. Lucy's Home, Hare Lane Two Nursing Homes	Asylums, Wotton and Coney Hill Children's Hospital Barnwood House Asylum Isolation Hospital, Over	St. Bartholomew's Hospital Almshouses, London Road

Area of District in acres (exclusive of area covered by water), 2290.

Total population at all ages...	47,955	} At Census of 1901.
Number of inhabited houses ...	10,098	
Average number of persons per house ...	4·7	

Table II.

County Borough of Gloucester.

Vital Statistics of separate Localities in 1908 and previous years.

NAMES OF LOCALITIES	(1) WHOLE DISTRICT.				(2) NORTHERN				(3) SOUTHERN			
	Population esti- mated to middle of each year	Births regis- tered	Deaths at all Ages	Deaths under 1 year	Population esti- mated to middle of each year	Births regis- tered	Deaths at all Ages	Deaths under 1 year	Population esti- mated to middle of each year	Births regis- tered	Deaths at all Ages	Deaths under 1 year
YEAR	(a)	(b)	(c)	(d)	(a)	(b)	(c)	(d)	(a)	(b)	(c)	(d)
1898 (1) ...	41307	1315	694	201								
1899 ...	41674	1360	804	211								
1900 ...	42021	1298	708	155								
1901 (2) ...	48134	1378	647	154								
1902 ...	48859	1360	757	176								
1903 ..	49594	1356	603	116	New Sub-	Registration			New Sub-	Registration		
1904 ...	50340	1344	734	181	Distric,	1907			Distric,	1907		
1905 ..	51098	1381	737	167								
1906 ...	51867	1455	712	175								
1907 ...	52435	1229	753	157	21707	441	337	72	30728	778	382	85
Averages of Years 1898-1907 }	47732	1347	714	169								
1908 ...	53176	1272	673	144	21948	501	301	66	31228	771	372	78

(1) Kingsholm merged into St. John's district.

(2) First year of City Extension.

Table III.

County Borough of Gloucester.

Cases of Infectious Disease notified during
the Year 1908.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							TOTAL CASES NOTIFIED IN EACH LOCALITY		NO. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY		TOTAL CASES REMOVED TO HOSPITAL.
	At all Ages	At Ages—Years.						Northern	Southern	Northern	Southern	
		Under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwards					
Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Cholera ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria, including Membranous Croup	68	...	10	40	11	7	...	25	43	13	26	39
Erysipelas	31	2	1	3	16	6	3	11	20	...	...	...
Scarlet Fever	74	1	17	45	7	4	...	11	63	6	55	61
Typhus Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	8	..	...	2	1	5	...	5	3	2	1	3
Relapsing Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	5	...	...	...	1	4	...	2	3	2	...	2
Plague ... ..	...	...	...	...	...	...	...	...	...	...	...	...
Chicken Pox	158	12	65	78	3	...	...	39	119	...	...	...
TOTALS	344	15	93	168	39	26	3	93	251	23	82	105

Isolation Hospital—Over, near Gloucester; total available beds, 40; number of diseases that can be concurrently treated, 3.

NOTE.—The cases of Enteric and Puerperal Fevers were treated in Gloucester General Infirmary; Small-Pox Hospital at Field Farm, near Gloucester; 10 beds.

Causes of, and Ages at, Death during Year 1908.

CAUSES OF DEATH.	DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING IN OR BEYOND THE DISTRICT.							DEATHS AT ALL AGES OF "RESIDENTS" BE- LONGING TO LOCALI- TIES, WHETHER OC- CURRING IN OR BEYOND THE DISTRICT.		DEATHS IN PUBLIC INSTITUTIONS.
	All ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and up- wards	Northern	Southern	
Small-pox ... ..	...	...	...	...	...	...	...	...	...	...
Measles ... ..	...	...	...	...	...	...	...	...	...	...
Scarlet Fever ... ..	...	...	...	...	...	...	...	...	...	...
Whooping Cough ...	17	11	5	1	...	...	...	3	14	...
Diphtheria and Membranous Croup } ...	9	1	1	7	...	...	...	3	6	...
Croup ... ..	...	...	...	...	...	...	...	...	...	...
Fever { Typhus ... ..	...	...	...	...	...	...	...	...	...	...
Enteric	2	...	...	...	...	2	...	1	1	1
Other continued... ..	...	...	...	...	...	...	...	...	...	...
Epidemic Influenza ...	1	...	...	...	...	1	...	...	1	...
Diarrhœa (see notes at back)	27	26	1	...	...	...	...	13	14	2
Enteritis (see notes at back)	5	...	3	1	...	1	...	1	4	1
Puerperal Fever (See notes at back)	...	...	...	...	...	...	...	...	...	...
Erysipelas	4	1	1	...	...	1	1	1	3	...
Other septic diseases ... ..	...	...	...	...	...	...	...	...	...	...
Phthisis	50	...	3	1	15	30	1	26	24	8
Other tubercular diseases	21	4	4	3	5	5	...	5	16	2
Cancer, malignant disease (See notes at back)	49	...	1	...	...	31	17	25	24	18
Bronchitis	60	13	7	1	...	6	33	23	37	1
Pneumonia	36	8	10	1	3	8	6	21	15	7
Pleurisy	2	...	...	...	1	1	...	1	1	2
Other diseases of Respiratory organs } ...	7	...	...	1	...	3	3	4	3	...
Alcoholism ... ..	...	...	...	...	...	6	...	3	3	...
Cirrhosis of liver... ..	6	...	...	...	...	...	...	...	...	...
Venereal diseases... ..	3	2	...	...	...	1	...	...	3	1
Premature birth	23	23	...	...	...	...	...	10	13	...
Diseases and accidents of parturition } ...	2	...	...	...	...	2	...	1	1	...
Heart diseases	77	2	1	2	4	35	33	31	46	11
Accidents	23	3	4	2	1	9	4	10	13	14
Suicides	6	...	...	...	...	5	1	2	4	...
Tentanus	1	...	...	...	...	1	...	...	1	...
Cerebro-Spinal Fever ...	1	...	...	...	1	...	...	...	1	...
All other causes	241	49	5	2	10	59	116	117	124	87
ALL CAUSES	673	143	46	22	40	207	215	301	272	155

NOTES TO TABLES.

- (a) In Table IV., all deaths of "Residents" occurring in public institutions, whether within or without the district, are to be *included* with the other deaths in the columns for the several age groups (columns 2-8). They are also, in columns 9-15, to be *included* among the deaths in their respective "Localities" according to the previous addresses of the deceased as given by the Registrars. Deaths of "Non-residents" occurring in public institutions in the district are in like manner to be *excluded* from columns 2-8 and 9-15 of Table IV.
- (b) See notes on Table I. as to the meaning of "Residents" and "Non-residents," and as to the "Public Institutions" to be taken into account for the purposes of these Tables. The "Localities" in Table IV. should be the same as those in Tables II. and III.
- (c) All deaths occurring in public institutions situated within the district, whether of "Residents" or of "Non-residents," are, in addition to being dealt with as in note (a), to be entered in the last column of Table IV. The total number in this column should equal the figures for the year in column 9, Table I.
- (d) The total deaths in the several "Localities" in columns 9-15 of Table IV. should equal those for the year in the same localities in Table II., sub-columns c. The total deaths at all ages in column 2 of Table IV. should equal the gross total of columns 9-15, and the figures for the year in column 12 of Table I.
- (e) Under the heading of "Diarrhœa" are to be included deaths registered as due to Epidemic diarrhœa, Epidemic enteritis, Infective enteritis, Zymotic enteritis, Summer diarrhœa, Dysentery and Dysenteric diarrhœa, Choleraic diarrhœa, Cholera and Cholera Nostras.

In addition, and as regards deaths of children *under one year of age*, under the heading "Diarrhœa" in column 3 (Table IV.) are to be included all deaths classified as "Diarrhœal diseases" in Table V.

Under the heading of "Enteritis" in Table IV., are to be included only deaths *over one year of age* registered as due to Enteritis, Muco-enteritis, Gastro-enteritis, Gastric catarrh, Gastritis, and Gastro-intestinal catarrh, unless from information obtained by enquiry from the certifying practitioner or otherwise, the Medical Officer of Health should have reason for including such deaths, under the specific term "Diarrhœa." Deaths from diarrhœa secondary to some other well-defined disease should be included under the latter.

- (f) Under the headings of "Cancer" and "Puerperal Fever" should be included all registered deaths from causes comprised within these general terms. Thus: Under "Cancer" should be included deaths from Cancer, Carcinoma, Malignant disease, Scirrhus, Epithelioma, Sarcoma, Villous tumour, and Papilloma of bladder, Rodent ulcer. Under "Puerperal Fever" are to be included deaths from Pyæmia, Septicæmia, Sapræmia, Pelvic peritonitis, Peri- and Endo-Metritis occurring in the Puerperium.
- (g) Under "Congenital Defects" in Table V. are to be included deaths from Atelectasis, Icterus neonatorum, Navel hæmorrhage, Malformations and Congenital hydrocephalus.
- (h) Under "Tuberculous Meningitis" are to be included deaths from Acute hydrocephalus.
- (i) Under "Other Tuberculous Diseases" are to be included deaths from Tuberculosis, Tuberculosis of bones, joints and other organs, Lupus and Scrofula.
- (j) All deaths certified by registered Medical Practitioners and all Inquest cases are to be classed as "Certified"; all other deaths are to be regarded as "Uncertified."

In recording the facts under the various headings of Tables I., II., III., IV and V., attention has been given to the notes on the Tables.

Table V

County Borough of Gloucester.

Infantile Mortality during the Year 1908.

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

CAUSE OF DEATH.		Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks	Total under 1 Month	1-2 Months	2-3 Months	3-4 Months	4-5 Months	5-6 Months	6-7 Months	7-8 Months	8-9 Months	9-10 Months	10-11 Months	11-12 Months	Total Deaths under One Year	
All Causes	Certified	24	5	9	8	46	14	16	16	6	7	8	7	9	4	4	3	140	
	Uncertified	2				2							1	1				4	
Common Infectious Diseases	Small-pox																		
	Chicken-pox																		
	Measles																		
	Scarlet Fever																		
	Diphtheria, including Membranous Croup														1			1	
Diarrheal Diseases	Whooping Cough						1	2	2	1		2		1	1	1		11	
	Diarrhoea, all forms				1	1	1	4	2	1	2		3	2	1	2		19	
	Enteritis, Muco-enteritis, Gastro-enteritis			1		1	1	3	1		1							7	
	Gastritis, Gastro-intestinal Catarrh								1	1								2	
Wasting Diseases	Premature Birth	16	3	2	2	23												23	
	Congenital Defects	3		1		4	1	1	1				1					8	
	Injury at Birth	1				1												1	
Tuberculous Diseases	Want of Brest-milk, Starvation																		
	Atrophy, Debility, Marasmus	4	1	3	3	11	4	3	4		1		2	3				28	
Other causes	Tuberculous Meningitis										1							1	
	Tuberculous Peritonitis: Tabes Mesenterica													1		1		2	
Other causes	Other Tuberculous Diseases						1											1	
	Erysipelas				1	1												1	
	Syphilis		1			1	1											2	
	Ricketts																1	1	
	Meningitis (<i>not Tuberculous</i>)								1	1		1			2		1	6	
	Convulsions											1		1				2	
	Bronchitis			1		1	3	1	2	1	1	2	1				1	13	
	Laryngitis																		
	Pneumonia				1	1	1		1		2	2	1						8
	Suffocation, overlying	1		1		2	1		1										4
Other Causes	1				1		1							1				3	
TOTALS		26	5	9	8	48	14	16	16	6	7	8	8	10	4	4	3	144	

Population, estimated to middle of 1908, 53,176.

Births legitimate ... 1214 Deaths legitimate infants ... 135
 ,, illegitimate ... 58 ,, illegitimate ,, ... 9

Deaths from all Causes at all ages, 673.

LOCAL WEATHER RECORDS.

From readings made at 9 o'clock a.m., by Mr. GEORGE EMBREY, F.I.C., F.C.S., at the City of Gloucester Meteorological Station, The Park, Gloucester.

1908	Temperature In Screen 4 ft. 6 ins. from ground in degrees Fahr.			Solar Radiation (Sun Temperature.)			Hygrometer. (Percentage of Saturation.)			Barometer. (Inches.)			Grass Minimum (Uncovered Bulb on grass)	Sunshine.			Rainfall. Rain Gauge 8 inches diameter, 1 foot above ground.			Earth Temperature 4 ft. from surface.			1908	
	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Highest	Lowest	Mean	Maximum	Minimum	Mean		No. of Days on which Sun shone	Greatest amount in one Day	No. of Hours Sunshine during Month	Greatest amount in 24 hours	No. of Days on which 0.1 of an inch or more fell	Total for Month in inches	Highest	Lowest	Mean		
JANUARY ...	55	17	36.9	85	37	60	100	73	90.6	30.61	29.16	30.15	11	16	4 30	36 20	.50	12	.89	45	41	42.4	JANUARY	
FEBRUARY ...	55	26	41.9	99	45	79.2	100	63	85.8	30.73	29.27	30.10	18	26	7 40	100 30	.21	15	.87	44	42	42.5	FEBRUARY	
MARCH ...	57	27	41.3	110	51	82	100	60	82.8	30.18	29.15	29.87	17	25	10 16	120	.66	17	2.88	43	42	42.7	MARCH	
APRIL ...	64.5	28	45.1	109	62	92.3	93	59	77	30.45	29.43	29.96	17	25	11 20	143 50	.42	12	1.95	45	44	44.7	APRIL	
MAY ...	77.5	38	56.4	124	78	105.1	93	51	75.2	30.54	29.34	30.01	29	31	13 30	224 40	.36	16	1.54	54.5	45.5	50.2	MAY	
JUNE ...	84	40	59.8	126	81	111.8	93	56	79.4	30.46	29.74	30.13	33	28	14	265 50	.22	8	0.64	59.5	54.5	57.4	JUNE	
JULY ...	87.5	46	63.3	127	89	111.4	88	56	71.7	30.53	29.43	30.66	38	31	13 50	239	.63	12	1.84	62	60	61.0	JULY	
AUGUST ...	83	43	60.8	124	80	108.3	100	54	71.5	30.45	29.46	30.04	34	28	13 20	207 50	1.05	15	3.36	62.5	60.5	61.8	AUGUST	
SEPTEMBER...	80	37	56.4	113	76	98.6	100	64	81.1	30.31	29.13	29.98	29	26	9	118 40	.40	15	1.96	60.5	58	58.5	SEPTEMBER	
OCTOBER ...	78	29	53.6	110	56	87.8	100	76	90.3	30.47	29.89	30.13	20	23	8	190 40	.53	15	1.63	59	54	56.2	OCTOBER	
NOVEMBER ...	59	22.5	40.7	87	51	74.1	100	67	86.7	30.42	29.52	30.06	18	25	6 30	86 30	.23	14	.96	54	50.5	52.0	NOVEMBER	
DECEMBER ...	53.5	17	41.2	81	30	56.7	100	77	93.1	30.43	28.89	29.89	6	16	5 10	30	.24	20	1.89	50	46.5	48.0	DECEMBER	
														No. of hours Sunshine during Year		1682 50		No. of Rainy Days, 171. Total Rainfall for the year, 20.31 ins.						
The highest temperature (87.5° Fahr.) was recorded on July 3rd. The lowest (17° Fahr.) on Jan. 11th and Dec. 29th.				Maximum (127° Fahr.) recorded July 3rd.				The highest pressure was recorded on February 7th (30.73 inches). The lowest on December 11th.				6° F. recorded on Dec. 29th.				Greatest Rainfall in one day, 1.05 inches, August 31st.								

Gloucester Port Sanitary Authority.

REPORT

OF THE

PORT MEDICAL OFFICER OF HEALTH

FOR 1908.

*TO THE SANITARY COMMITTEE
OF THE
GLOUCESTER PORT SANITARY AUTHORITY.*

GENTLEMEN,

By an Order of the Local Government Board, issued in 1894, the Mayor, Aldermen and Citizens of the City of Gloucester, acting by the Council as the Urban Sanitary Authority, were permanently constituted the Port Sanitary Authority for the Port Sanitary District of Gloucester.

By the same Order it was directed that the following should contribute towards the expenses incurred by the Port Sanitary Authority :—

The Gloucester Urban Sanitary Authority	...	45%
The Dursley Rural Sanitary Authority	...	3%
The Gloucester Rural Sanitary Authority	...	15%
The Thornbury Rural Sanitary Authority	...	30%
The Wheatenhurst Rural Sanitary Authority	...	7%

The jurisdiction of the Port Sanitary Authority extends over an area which may shortly be described as comprising the Docks at Gloucester and Sharpness with the Gloucester and Berkeley Canal, and the eastern side of the waterway from Sharpness to the site of the Severn Tunnel, where the Port of Bristol ends. The Authority's jurisdiction also extends over the places appointed as Customs Boarding Stations, or as mooring or anchorage stations, for the purpose of preventing the spread of disease, and also extends to any ship directed to be moored or anchored there, or which is on its way to such station.

As the deep water channel to the Port of Gloucester passes through Kingroad, and as anchorage is dangerous outside the entrance to the Port of Gloucester, the responsibility of dealing with Cholera, Plague and Yellow Fever in Gloucester bound ships was placed by the Local Government Order of 24th April, 1897, upon the Bristol Port Sanitary Authority.

The Bristol and Gloucester Port Sanitary Authorities have agreed upon a scale of fees for the services to be rendered by the Bristol Port Sanitary Authority as regards the inspection of Gloucester bound ships from time to time, and the dealing with such vessels if infected; and the removal and treatment of any infected persons found thereon; the question as to the vessels to be inspected to be arranged by the two Authorities, from time to time, having regard to the prevalence of disease and other circumstances.

On account of the prevalence of Cholera in Russia, the following ships were inspected by the medical staff of the Bristol Port Sanitary Authority:—

Date	Name	Port	Medically inspected	Visited & disinfected	Spoken only
Sept. 25 ...	S.S. Margaret Jones	Kherson	... —	... Yes	... —
Oct. 1 ...	S.S. Milwall	... Kherson	... —	... Yes	... —
.. 3 ...	S.S. Tandil	... River Plate	... —	... —	... Yes
.. 3 ...	S.S. Sud	... Rosario	... —	... —	... Yes
.. 5 ...	S.S. Lisa	... Sundsval	... —	... —	... Yes
.. 6 ...	S.S. Bur	... Cronstadt	... Yes	... Yes	... —
.. 6 ...	S.S. Helga	... Wasa	... Yes	... Yes	... —
.. 7 ...	S.S. Probus	... ..	... —	... ..	... Yes
.. 12 ...	S.S. Spurt	... ..	... —	... —	... Yes
.. 12 ...	S.S. Siva	... Pitca	... —	... —	... Yes
.. 16 ...	S.S. Jerv	... Archangel	... Yes	... Yes	... —
.. 19 ...	S.S. Avonmore	... Nicholaief	... Yes	... Yes	... —
.. 24 ...	S.S. Alfred	... Riga	... —	... Yes	... —
.. 26 ...	S.S. Irina	... Sulina	... Yes	... Yes	... —
.. 27 ...	S.S. Rosalind	... Bjorneborg	... —	... Yes	... —
.. 27 ...	S.S. Spes	... Archangsl	... Yes	... Yes	... —
Nov. 1 ...	S.S. Henry Furst	... Archangel	... Yes	... Yes	... —
.. 3 ...	S.S. Thelma	... Archangel	... Yes	... Yes	... —
.. 3 ...	S.S. Coaling	... Nova Scotia	... Yes	... —	... —
.. 4 ...	S.S. Chios	... Taganrog	... Yes	... Yes	... —
.. 16 ...	S.S. Thyra	... Hernosand	... —	... —	... Yes
.. 16 ...	S.S. Blenheim	... Alexandria	... —	... —	... Yes
.. 24 ...	S.S. L. H. Carl	... St. Petersburg	... Yes	... Yes	... —
Dec. 4 ...	S.S. Whinfield	... Kherson	... Yes	... Yes	... —
.. 5 ...	S.S. Cholmley	... Riga	... Yes	... Yes	... —
.. 10 ...	S.S. Garton	... Kherson	... Yes	... Yes	... —
.. 17 ...	S.S. Ceres	... Riga	... Yes	... Yes	... —
.. 17 ...	S.S. Tregurno	... Kherson	... Yes	... Yes	... —

In special cases where, if a ship was brought to in Kingroad, she might lose her tide and get neaped and so an unnecessary delay of some days arise, the pilots are instructed to bring the ship on provided there is no case of sickness on board. On arrival at Sharpness such ships would be detained in the tidal basin for inspection by the Gloucester Port Medical Officer of Health, but should he be unable to promptly inspect her, or in other emergency, the Council has arranged to employ MR. G. FORDEN, M.R.C.S., of Berkeley, to do so, and the following have been so inspected :—

Date.	Name.	From.	No. of Crew.
September 30 ...	Dalegarth ...	Nicholaieff ...	22
October 1 ...	Millwall ...	Kherson ...	20
December 5 ...	Whinfield ...	Kherson ...	20
December 27 ...	Glitra ...	Kherson ...	20

SANITATION OF VESSELS.

The Public Health Act, 1875, Sec. 110, enacts that a ship when in a District of a Local Authority shall be dealt with as a house within the district. The special points that require attention in the case of a ship being the character of the water supply, how it is stored, and the conditions of the tanks. The ventilation, lighting, dampness, and cleanliness of the living quarters, and whether they are overcrowded and properly protected from obnoxious effluvia. The conditions of the bilges and closets also require attention.

The Port Inspector of Nuisances and the Assistant Port Inspector of Nuisances are both stationed at Sharpness, where they are also in the employ of the Dock Company. And it would appear that these other duties of theirs prevent them giving sufficient time to the general sanitary inspection of ships, especially those coming coastwise. And as regards most of the ships coming to Gloucester Docks the Port Medical Officer of Health has to deal with them himself with some assistance from the City Sanitary Staff.

SHARPNESS DOCKS.

SHIPS INSPECTED COMING "FOREIGN."

	No. Inspected.	No. Defects.	No. of Notices.
Steamships	... 218	... 0	... 0
Sailing ...	... 29	... 0	... 0
	<u>247</u>	<u>0</u>	<u>0</u>

GLOUCESTER DOCKS.

SHIPS INSPECTED COMING "FOREIGN."

Steamships	... 14	... 0	... 0
Sailing ...	... 16	... 0	... 0
	<u>30</u>	<u>0</u>	<u>0</u>

SHIPS INSPECTED COMING "COASTWISE."

Steamships	... 23	... 0	... 0
Sailing ...	... 65	... 13	... 7
	<u>88</u>	<u>13</u>	<u>7</u>
TOTALS ...	... 118	... 13	... 7

The Nuisances consisted of the following :—

Leakage into forecastle	... ..	1
No privy accommodation	... ..	7
Dirty sanitary condition	... ..	2
Dirty forecastles	... ..	3

INFECTIOUS DISEASE.

On March 30th, s.s. Generosa (Italian) arrived from Rosario at Sharpness Docks. Four of the crew were suffering from Enteric Fever and were removed to the General Infirmary at Gloucester. The ship was disinfected and cleansed. The total number of crew was 25, and no further case of sickness occurred.

REGULATIONS under Sec. 125 of the Public Health Act, 1875, as to the removal to hospital of any person in a ship who is "infected with a dangerous infectious disorder" having been approved of by the Local Government Board were adopted by the Council.

HOSPITALS.—At Sharpness Docks, by the courtesy of the Dock Company, a hospital of one ward with five beds has been erected at which a caretaker resides. Adjoining is a mortuary and small washhouse.

At Gloucester Docks, also by permission of the Company, there is a hospital for five beds, in one ward, mortuary, washhouse and watchman's hut at entrance gate. This hospital would be available should any special need arise, and if the cases could not be treated in one of the City Isolation Hospitals. On the site there is room for erecting further temporary buildings or tents.

FOREIGN MEAT REGULATIONS AND UN SOUND FOOD REGULATIONS.

The only foodstuffs imported to any amount are various kinds of grain, flour, sugar, and potatoes.

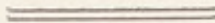
And there is no cold storage accommodation either at Sharpness or Gloucester.

Your obedient Servant,

W. M. HOPE, D.P.H.,

Port Medical Officer of Health.

January 31st, 1909.



ARRIVAL OF VESSELS FROM "FOREIGN."

From	Steam	Sailing	From	Steam	Sailing	From	Steam	Sailing
Achtery, Russia	1		Havre	2		Pugwash, N.S.	1	
Alexandra	5		Hernosand	3		Quebec	1	
Antwerp	3	1	Honfleur	1		Riga	5	2
Archangel	16		Ibrail	2		Rosario	21	1
Bahai Blanca	2		Karrachi	1		Rostock	1	
Buenos Ayres	3	2	Kerini	1		Rotterdam	7	
Bjorneborg	1		Kherson	8		Rouen	7	
Boulogne	1		Kovda	1		Saffi	1	
Braila	1		Kragro	1		San Francisco		2
Calcutta	1		Kronstadt	1		San Nicholas	2	
Casa Blanca	2		Libau	1		Saroka	2	
Campbell Town			Lundvik	1		Skoudik	1	
N.B.	1		Marionople	1		Soderham	1	
Chatham, N.B.	3		Marmagoa	1		St. Brienne		1
Christiana	1		Memel	1		St. John's, N.B.	7	
Colastine	1		Mirunchi	1		St. Petersburg	3	
Conception Villas,			Mobile	1		St. Malo	1	6
Paraguay	1		Monte Video	1		Stettin	1	
Dantzic	3		Nantes		1	Stralsund	1	
Dieppe	3	1	Nederkalix	2		Sulina	9	
Dunkirk	1		Nicolaieff	3		Sudersvall	1	
Fechamp	1		Norsundet	2		Tacoma		1
Gaza, Syria	1		Odessa	1		Taganrog	2	
Genoa		1	Oporto		2	Tangiers		1
Gothenburg		1	Ostend	1		Ulenburgh	1	
Gelfe	3		Pensacola	1		Victoria, B.C.	1	
Gulf Port	3		Pitea	2		Wasa	3	
Halifax	1		Portland (O R)		1	Wismar	1	
Hamburg	39	2	Portiua		1			

SUMMARY FOR 1908.

The total number of vessels which arrived from "Foreign" for the year was made up as under:—

Steamers	218	British Vessels	160
Sailing Vessels	29	Foreign Vessels	87
Total Number of Crews			4352

VESSELS COMING "COASTWISE."

Steamers	229	Sailing Vessels	931
----------	-----	-----------------	-----

