

[Report 1914] / Medical Officer of Health, Gloucester City & Port.

Contributors

Gloucester (England). City and Port Council.

Publication/Creation

1914

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Infant Welfare Page 15.

City and County of
The City of Gloucester.



1914.

ANNUAL REPORTS

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE

City and Port of Gloucester.

ORDERED TO BE PRINTED.





ANNUAL REPORT
OF THE
MEDICAL OFFICER OF HEALTH
FOR THE
CITY OF GLOUCESTER
FOR 1914.

CONTENTS.

	PAGE
GENERAL DESCRIPTION OF DISTRICT	3
SEWERAGE	3-5
WATER SUPPLY	6-7
VITAL STATISTICS	8-9
DEATHS AT ALL AGES	9
INFANTILE MORTALITY	10
INFECTIOUS DISEASES	16
TUBERCULOSIS	21
METHOD OF DEALING WITH INFECTIOUS DISEASES	26
ISOLATION HOSPITALS	29
COMMON LODGING HOUSES	31
HOUSES LET IN LODGINGS, ETC.	32
HOUSING OF THE WORKING CLASSES	32
HOUSING, ETC., ACT, 1909	34
INSPECTION OF HOUSES	35
OFFENSIVE TRADES	36
SLAUGHTER-HOUSES	36
UN SOUND FOOD	37
DAIRIES, MILKSHOPS AND COWSHEDS	38
SALE OF FOOD AND DRUGS ACT	39
SMOKE NUISANCES	41
CANAL BOATS	41
MIDWIVES ACT, 1902... ..	41
EDUCATION (ADMINISTRATIVE PROVISIONS) ACT, 1907	42
GENERAL SANITARY CONDITION OF PUBLIC ELEMENTARY SCHOOLS	42
ABSTRACT OF SANITARY WORK DONE DURING THE YEAR ...	43
FACTORY AND WORKSHOPS ACTS—REPORTS	45
CANAL BOAT ACTS—REPORT	48
STATISTICAL TABLES	49-53
LOCAL WEATHER RECORDS	55-58

REPORT.

GLOUCESTER, 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 highest point in Reservoir Road 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 overlaying the deeper formation. These beds render the site a good one, and as there is 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.

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 manholes 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 manholes 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 ins. by 9 ins. by 7 ins., containing $1\frac{1}{4}$ to 2 gallons.

Thus the method of disposal of the sewerage is by water carriage, the outfalls being into the Severn. The improvements of one of the outfalls will be completed in 1915, it being transferred to a site a quarter of a mile lower down the river.

NOTES ON THE SEWER OUTFALL BY R. READ, A.M.I.C.E.,
CITY SURVEYOR.

5th January, 1915.

In continuance of my remarks in last year's report :—

The Tunnel and Syphon have now been completed by Messrs Wardle & Sons, of Bristol, and the Southern Sewer on the Quay Road has been connected to it by Messrs. T. B. Cooper & Co., of Bristol, but the Northern Sewer is not yet connected owing to the floods in the River.

The Syphon pipes are placed in the bottom of the Tunnel and consist of one 15 in. pipe and two 2 ft. 6 in. pipes, the smaller pipe being in the middle, between the other two, takes the dry weather flow from the sewers, while the two 30 in. pipes come into action when the 15 in. pipe is running full.

Perpendicular ladders in each shaft, one on the Quay and the other on the Meadows, enable access to be obtained to any part of the Syphon inside the Tunnel, and a small electric motor pump

is placed in the Western shaft to pump out any condensed water from the sump of the Tunnel, or for emptying either of the syphon pipes for repairs. Either of the syphon pipes can be shut off by means of valves in each shaft and the whole of them can be flushed from the river by means of one 15 in. and two 24 in. valves on the Quay side at any time.

When the present flood in the river abates Messrs. Cooper will be able to control the river water, which at present gets in through the old sewer outlet, and make good the connections to the Northern Sewer.

HOUSE REFUSE. There are no fixed ashpits. Under the Gloucester Corporation Act, 1911, Sec. 53, the Council may require householders to provide galvanized iron or enamelled iron dustbins, but the majority of householders use old boxes, buckets, etc. The refuse is collected by the Council's own employees three times a week from ten districts, and twice a week from two districts. Two-wheeled open carts are used, supplied with canvas sheets to be used as covers after being loaded, and of late four-wheeled carts have been used in which the canvas sheet is drawn over the refuse as it is loaded. In either case there is no emptying of refuse into streets or yards involved.

The amount of house refuse at present varies from 150 to 200 tons per week.

About one-fifteenth of this amount is carted to old brick pits outside the City. One-fourth is tipped on low lying meadows just within the boundary of the City on the north west, the nearest house being situated at a distance of 160 yards.

The remainder is dealt with at the Refuse Destructor, paper, soldered tins, and glass being there sorted out and sold.

The Destructor is fitted with Heenan and Froude's twin cells with hot air blast and has a capacity of 25 tons per day.

The WATER SUPPLY is derived from three sources :

1. Robinshood 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 reservoir 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 is a watershed area of 1,500 acres formed by an escarpment of the Cotswold 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 5 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 ins. 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 Robinshood 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 lb. pressure between the inlet and outlet of the filter. 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. A good 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. Dr. Frankland reporting on this water said it is organically one of the purest waters I have ever examined, in this and other respects of most excellent quality for all dietetic purposes. From these three sources the City obtains a good 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 to a certain extent in the distributing mains.

The rainfall at Witcombe for 1914 was 31·63 inches.

In 1911, as it seemed likely that these sources of supply might prove inadequate in a short time, considering the increasing number of houses in the City and the increasing requests for water from residents outside the City, an Act of Parliament was obtained which, inter alia, gave the Corporation power "to construct a well and pumping station at Pauntley," some 3 miles from Newent, from which the water will be pumped to one of the existing reservoirs at Upleadon.

NOTES ON WATER SUPPLY, KETFORD, BY R. READ, A.M.I.C.E.,
CITY SURVEYOR AND WATERWORKS ENGINEER.

In continuation of my remarks in last year's report :—

A Contract has been entered into with Messrs. E. Timmins and Sons, of Runcorn, Cheshire, for putting down a second borehole about 250 feet, eastward from the No. 1 or existing borehole. They commenced work on the 12th October, 1914, and have sunk a borehole 21 in. diameter, for a distance of 150 ft. This is lined

with steel tubing 18 in. internal diameter and is now being concreted round the outside. They will continue to sink a borehole 18 in. diameter which will be lined with 15 in. perforated tubes, probably to a depth of 400 or 500 feet. The boring is in fine and coarse sandstones and conglomerates of the new Red Sandstone Series.

A Contract has also been let to the Premier Gas Engine Co., of Nottingham, for the construction and supply of the plant which consists of suction gas apparatus, gas engines, and pumps in duplicate for forcing the water from the boreholes to the reservoir at Madams' Wood.

The water will be raised from the two boreholes by air lifts, the contract for which has not yet been let.

VITAL STATISTICS.

The population of the City at the 1911 Census consisted of 23,759 males and 26,276 females, a total of 50,035 persons. The increase in the intercensal period 1901 to 1911 being 4·3 per cent. And the Registrar General estimates the population at the middle of 1914 to be 50,533.

The births registered in the City in 1914 were 1,297, and as there were outward transfers of one legitimate birth, and inward transfers of two illegitimate births, the net number of births amount to 1,296, a rate of 25·4.

The deaths included those of 111 legitimate infants, and 6 illegitimate births under one year of age, the rate per 1,000 births being 90·27.

The deaths at all ages of residents dying in or outside the City amounted to 718, being an uncorrected death-rate of 14·1 and a standardised death-rate of 13·46.

There were 182 deaths of persons 70 years of age and upwards.

ENGLAND AND WALES.

BIRTH RATES AND DEATH RATES IN YEAR 1914.

(Provisional Figures.)

	Annual Rates per 1000 living.			Deaths under 1 year to 1000 Births
	Births	Crude Deaths	Standardised Deaths	
England and Wales ...	23·6	13·9	13·6	105
*95 Great Towns, including London ...	24·9	14·6	14·9	113
145 Smaller Towns ...	23·6	12·8	12·9	104
England and Wales, less the 242 towns ...	21·9	13·3	12·2	93
London ...	24·6	14·4	14·4	93
GLOUCESTER ...	25·4	14·14	13·46	90·23

* Gloucester is included amongst the 95 Great Towns.

There were 182 deaths of persons 70 years of age and upwards.

Ages	70 to 75	75 to 80	80 to 85	85 to 90	90 to 95	97
Deaths	66	60	45	28	5	1

SOME CAUSES OF DEATH AT ALL AGES, 1914.

With standardised rates per 1,000 of the population estimated to middle of year.

Year.	Phthisis.	Other Tubercular	Pneumonia, all forms.	Cancer.
1906 ...	·95	·38	·83	·95
1907 ...	1·2	·47	1·0	·95
1908 ...	·95	·38	·65	·95
1909 ...	1·0	·28	1·0	1·3
1910 ...	·76	·38	1·4	·83
1911 ...	1·0	·57	·95	·65
1912 ...	1·0	·19	·92	1·0
1913 ...	·85	·28	·10	·80
1914 ...	·89	·27	1·64	1·04

And for 1914 the rates for other diseases were :—

Bronchitis	...	...	1·46	Scarlet Fever	...	...	·37
Broncho-Pneumonia	...	...	·81	Diphtheria	...	...	1·87
Pneumonia	...	...	·81	Enteric Fever	...	...	·02
Whooping Cough	...	...	1·2	Diarrhœa	...	...	·37
Measles	...	...	...				nil

while deaths from the seven chief epidemic diseases (including diarrhœa) gave a rate of ·65.

INFANT MORTALITY.

The rate per 1,000 births was 90·27.

PRENATAL MORTALITY.—60 stillborn infants were buried in the City cemetery.

In the Table IV. the various causes of death under one year are set out in various age groups.

PREMATURE BIRTHS, DEBILITY AND MARASMUS.—Deaths from these causes amounted to 42.

The Medical Officer of the Local Government Board has pointed out in his Reports on Infant and Child Mortality that there are doubts attached to “accuracy of certification of the causes of death during infancy, especially deaths ascribed to premature birth and congenital defects, and to atrophy, debility and marasmus.”

“The majority of deaths ascribed to premature birth and congenital defects are probably ascribable to antinatal conditions ; but many also to lack of care at and after birth.”

These causes of death are of most importance, so far as they are 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, this again being often due to the wretched housing conditions in which some people have to live.

The rate per 1,000 births for Premature Births was 23·1, and for cases of Debility and Marasmus 9·2, and the death-rate for "The Group of Five," so termed, which consists of deaths attributed to premature births and congenital defects, injury at birth, want of breast milk, atrophy, debility and marasmus, was 37·8.

The Bronchitis death-rate was 8·4, and that for all forms of Pneumonia, 19·2.

The Tuberculosis death-rate was 1·5. Deaths from Whooping Cough gave a rate of 3·08, while Diarrhoea and Enteritis caused 11 deaths, a rate of 8·4, and these causes of death must be looked upon as largely preventable.

Causes which contribute to these deaths are want of knowledge on the mother's part as to the feeding and management of infants and as to preventing the exposure of their food to contamination from decomposing organic matter.

With one exception all the fatal cases were those of infants bottle-fed from birth or being bottle-fed when attacked with Diarrhoea.

Most of the cases occurred amongst the infants of the poorer parents, which bears out what has been noted before, that in towns infant mortality is excessive among the poor while being low among the well-to-do.

Poverty not only induces malnutrition of the mothers and infants, but compels their living in the districts where house rent is low due to the unsatisfactory conditions of the dwellings. And living under such circumstances tends to cause carelessness, uncleanness and overcrowding, while in the poorer class of house there is no proper accommodation for storing food and no separate water supply and sanitary conveniences for each house.

In a report on Infant and Child Mortality, 1913, by the Medical Officer for the Local Government Board, it is pointed out that "the use of sanitary conveniences in

common was a detrimental influence upon the general decency of the inhabitants and is reflected in infant and child mortality."

It is by doing away with the various defects in sanitation and housing, paving the yards and attending to the removal of refuse, and the cleanliness of the streets that Sanitary Authorities can do much to lower the Infantile Mortality of their districts.

During 1914 there were 1,297 births registered in the City, 464 being the infants of mothers attended by the midwives working on their own behalf :—these latter are supplied with stamped postcards so that they may send early information of the births to the Medical Officer of Health.

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 CARE AND FEEDING OF INFANTS.

I.—FEEDING WITH MOTHER'S MILK.

Mother's milk is the natural and by far the best food for infants. If the mother has plenty of breast milk, and feeds the child regularly, it should not have any other food until the 8th or 9th month.

No solid food, boiled bread, nursery biscuits, tops and bottoms, or patent foods, or medicine of any kind, should be given unless ordered by a doctor.

During the first two months the baby should be suckled every two hours, and after the third month every three hours during the day, and only once or twice in the night.

It is most important that the baby should be **regularly fed**, and not too often. Do not feed the baby every time it cries.

A nursing mother should be very careful about her own health. Her diet should be plain and wholesome. Never take stout, beer, wine, or spirits. Drink plenty of milk instead. Milk puddings, gruel and cocoa are also suitable.

If the mother has not enough milk, feeds of cow's milk and water or barley water should be given as well as the mother's milk (see Section II.)

Weaning should be gradual, and as a rule suckling should not be prolonged beyond the first year.

II.—FEEDING WITH COW'S MILK.

If the mother cannot suckle her child, it should be fed with cow's milk and water, or barley water, with a little sugar added. Skimmed milk should not be used.

The milk must be kept in a very clean jug, in the coolest place, and protected from dust and flies. It should be scalded as soon as received from the milkman.

Use a boat-shaped feeding bottle, with a rubber teat. **Never use a bottle with a long tube.** After each feed the bottle and teat, which should be turned inside out, should be well washed in hot water and soda, and kept standing in clean water. Make up each meal in the following way :—

FOR A BABY UNDER TWO WEEKS OLD.

Milk, 1 tablespoonful ; water, 2 tablespoonfuls.

Mix and then warm. Give this to the baby every two hours in the day and every four hours at night.

FOR A BABY FROM A FORTNIGHT TO TWO MONTHS OLD.

Milk, $1\frac{1}{2}$ tablespoonfuls, gradually increasing to 3.

Water, 3 tablespoonfuls. Mix and warm. Feed as before.

FOR A BABY BETWEEN TWO AND FOUR MONTHS OLD.

Milk, 3 tablespoonfuls, gradually increasing to 4.

Water, 3 tablespoonfuls, gradually increasing to 4. Mix and warm. Give this every three hours during the day and once at night.

FOR A BABY BETWEEN FOUR AND SIX MONTHS OLD.

Milk, 5 tablespoonfuls, gradually increasing to 8.

Water, 5 tablespoonfuls, gradually decreasing to 4. Mix and warm. Give this every three hours during the day and once at night.

FOR A BABY BETWEEN SIX AND NINE MONTHS OLD.

Milk, 9 tablespoonfuls, gradually increasing to 11.

Water, 3 tablespoonfuls. Mix and warm.

Give this every three hours during the day and once at night.

Use water which has been boiled to mix with the milk, and add a teaspoonful of clean sugar to each meal. **At nine months** the milk may be given without any water added, and the number of tablespoonfuls in each meal increased from 14 to 16.

If it can be procured, 1 to 2 tablespoonfuls of **pure cream** should be added to each meal.

Never keep food over in the bottle for the next meal.

At twelve months the milk may be thickened with cornflour, and some broth or beef tea given. The child may also have bread and milk, porridge, and milk puddings.

Children require plenty of milk until the age of three years, as they cannot digest the same food as grown-up persons. **Do not give them beer, gin, spirits, wine, cheese, pickles, pastry, raw fruit, nuts or sweets.**

Do not give them teething powders, sleeping draughts or soothing syrups.

Do not use dummy teats or "comforters."

III.—GENERAL REQUIREMENTS.

In addition to proper food and regular meals, babies need warmth, and plenty of sleep and fresh air.

The baby should always be kept warm with woollen under-clothing. Only one binder is necessary. It should be of flannel, and not tight. The arms and neck should be protected by a woollen vest with long sleeves. The baby should sleep in a cot or cradle, rather than in bed with the parents; a clean box, such as an orange box, or a clothes basket will do if you have not a cradle. Many babies are killed every year by overlaying from sleeping with the parents.

Fresh air and sunshine are nearly as important as food. The windows should always be kept open a few inches at the top, night and day.

The baby should be taken out of doors in the daytime as much as possible when the weather is not bad; **but it must not be taken out at night.**

The baby should be washed all over every day, with soap and warm water, and kept very clean, and not allowed to suck dirty things (which may cause "thrush" and diarrhœa).

IV.—HOW TO PREVENT DIARRHŒA.

During each summer a number of infants die from Diarrhœa. Very few babies who are fed entirely from the breast die from this disease. It is evident, therefore, that in the prevention of this very fatal disease precautions as to the food of infants are most important.

Attention to the points already mentioned would save many infants' lives.

If infants have to be weaned during the hot weather, in July, August and September, special care should be taken to prevent the access of flies or dust to milk, sugar, etc., all jugs or other utensils being kept covered with a clean cloth or piece of clean paper.

Flies are bred in manure heaps and other decomposing refuse. They carry contaminating material about with them and so infect articles of food.

Thus decomposing refuse, such as decaying vegetables, bones, fish heads, etc. is a fertile source of diarrhœa. It should, if possible, be burnt and not placed in the dust bin. All dust bins or other receptacles should be kept covered.

Cleanliness of the house, especially of the rooms where food is stored, is most important. Dust in every form is dangerous to health. Washing and scrubbing are safer means of cleansing floors, etc., than sweeping.

Report to the Sanitary Office any choked closet or drain or any nuisance caused by accumulations of manure or other filth.

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 (431 in 1914).

Under the auspices of the Ladies' Committee a Mothers' "At Home" has been instituted at the District Nurses Home, to which mothers, who have been attended by the midwives, are invited. At these meetings the babies are weighed and their progress noted and any necessary advice given as to the feeding or as to procuring medical advice. This has proved very successful during the year, a number of mothers availing themselves of the meetings, which take place once a month with an average attendance of over 64·8, the total number of babies for the year being 246.

As the mothers and babies attended by midwives not on the District Nursing Staff were not included in the above, an Association of ladies in 1912 organised a "Mothers' Club and Babies' Welcome," and from the cards notifying births sent by the several midwives working on their own account, the Medical Officer of Health is able to send weekly lists to the Honorary Secretary to whom he is indebted for the following information :—

The objects of this Society are :—

- 1.—To instruct the members in the laws of health and sanitation.
- 2.—To provide "Infant Consultations" to which mothers may bring their babies and receive, from a qualified doctor, advice on their care and management.
- 3.—To encourage thrift.

There are now three centres with weekly meetings, to which mothers are invited to bring their babies so that their progress may be noted and advice and instruction given.

The services of voluntary lady helpers are supplemented by the services of three honorary Medical advisers who attend the three centres and by a trained Superintendent who is a qualified Health Visitor.

The average number of mothers belonging to the Club is 380, and the average attendance per week is 82.

The work of this Society has met what was formerly a great want in the City and has filled up what was a gap in the Public Health Service of the district.

During the past twelve months the Superintendent has paid 2620 visits to the houses of the members, 150 of these being first visits, in response to the lists sent weekly by the Medical Officer of Health.

Numerous visits have also been paid by Voluntary Helpers.

In the same period the Superintendent has given 100 "Health Talks" at the meetings in addition to the advice and instruction which is given to the mothers individually.

Nearly a hundred members have joined a Provident Clothing Club, through which they are enabled to buy suitable and hygienic infants' clothing at cost price, and at each centre there is a flourishing branch of the C. O. S. savings bank.

INFECTIOUS DISEASES.

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

DIPHTHERIA.—167 cases occurred in 142 houses, and the following defective sanitary conditions were found in certain of the houses :—

Defective drains	...	15	Bad Ventilation	...	4
Untrapped drains	...	18	Damp Walls	...	3
Choked w.c.'s and drains	3		Defective yard paving		10
Defects in w.c.'s	...	16	Fowls being kept	...	Nil
Dirty houses	...	11	Overcrowding	...	1
Dilapidated houses	...	6			

64 cases occurred in the first quarter, 39 cases in the second quarter, 25 cases in the third quarter, and 39 cases in the fourth quarter.

No particular school was specially affected.

In the infant departments of the public elementary schools 40 cases occurred and 64 cases in the upper departments, giving attack rates of 1·6 per cent. and of 0·9 per cent. of the average number on the books.

SCARLET FEVER.—65 cases occurred in the first quarter, 40 in the second quarter, 24 in the third quarter, and 60 in the fourth quarter, the cases being distributed over the various parts of the City.

46 cases occurred among children attending the infant departments of public elementary schools and 44 amongst those in the upper departments, giving attack rates per cent. of the average number on the books of 1·8 and 0·6.

One of the reasons for the spread of the disease was undoubtedly the fact that most of the cases were of a very mild type, and some cases were only found out after they had been going about in the desquamating stage, the earlier symptoms being so mild as to be overlooked.

“ 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 or Diphtheria 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 etiological relationship between the cases.

During 1914 “ return ” cases of Scarlatina occurred in three houses to which a patient had returned after being in the City Hospital. As regards Diphtheria no “ return ” cases occurred.

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

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 for the first two 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.

Kissing should be avoided, as it is in the cavities of the mouth, throat and nose that infection may exist which it has not been possible to detect.

Children convalescent from Scarlet Fever must not return to school for two weeks after being discharged from hospital, and those convalescent from Diphtheria not until four weeks after being discharged from hospital, unless special permission is given.

ENTERIC FEVER.

	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914
Cases	18	16	15	8	12	10	18	16	7	13
Deaths	1	1	3	2	3	1	5	4	1	2

In 1914 one case occurred in the first quarter, two in the second quarter, nine in the third quarter and one in the fourth quarter.

Of these cases four were treated at home and two of them died. The remaining nine cases were treated in Hospital and recovered; four of them being admitted to the City Hospital, three to the Royal Infirmary, one to the Children's Hospital, and one to the Poor Law Infirmary.

In none of the cases could any definite source of infection be traced. In the third quarter, seven of the cases were notified within ten days, but one case had been evidently ill for a fortnight. Two of the cases were friends, but there was no connection between any of the

others; but during the then hot weather all the cases had been in the country drinking water from any available source.

PUERPERAL FEVER.—Two cases, both of whom recovered, were notified during the year.

ERYSIPELAS.—There was only one death among the 57 cases notified, showing how mild most of the cases were.

MEASLES were not very prevalent and no death occurred.

MEASLES.

PRECAUTIONS TO PREVENT ITS SPREAD.

1. **Symptoms.**—Whenever Measles is prevalent in the neighbourhood, the first symptoms of this disease in a child should be watched for. If a child seem poorly or feverish, with a slight cough or sneezing, and the eyes become red and watery as though suffering from a cold, it should not be allowed to go to school, but kept warm and separate from the other children, if possible, for three or four days, when, if it be Measles, the rash will appear on the face.

2.—**Nursing.**—Keep the patient in one room at the top of the house when possible. Admit plenty of light and fresh air into the room; but keep a fire, and be careful that the room is warm but not overheated. The patient should on no account be taken out of doors to a Dispensary or Druggist, but Medical attendance should be obtained at home.

3. **Disinfection.**—All infected or soiled articles such as towels linen, handkerchiefs, etc., should be placed in a pail and an abundance of boiling water poured over them and then washed on the premises as soon as possible. The towels, sponges, etc., used by the patient should not be used by others. If there are any discharges from the nose or eyes, rags, which are to be burnt afterwards, should be made use of. Any article of food taken into the sick room and not used must be destroyed and not partaken of by others. All food vessels, spoons, etc., should be scalded and cleansed after use, and not used by others.

4. **Caution.**—Children from other houses should not be allowed to enter the infected house, and the patient must not mix with other children for three weeks after the appearance of the rash.

5. **After Recovery.**—Notice should be sent to the Sanitary Office, Guildhall. After Measles no child will be allowed to return to School without a certificate from the Medical Officer of Health.

6. **Parents are cautioned** that Measles is not a trivial complaint but that it is the cause of many deaths in young children.

WHOOPING COUGH was prevalent towards the end of the year, seven deaths occurring.

WHOOPING COUGH.

Whooping Cough is very **catching**, and causes many **deaths** of babies and young children.

When a child has Whooping Cough **keep** him **away** from other children, to prevent the cough being caught by them.

Always take the **spit** from the child's mouth with a piece of clean paper or rag, and **burn it** at once.

Never let the child spit about the **house** or **yard**.

Keep the **patient** from **school** as long as he has Whooping Cough. Other children in the household who have not previously had the disease are also forbidden to go to school.

The child who is ill should be kept **warm** and **quiet** in bed. Most of the deaths are caused by catching cold when suffering from Whooping Cough.

When the Cough is better the house should be thoroughly **cleansed**. All the bed ticks, blankets and sheets used by the child who has been ill, as well as its clothing, should be **washed**.

OPHTHALMIA NEONATORUM.—A large proportion of the blindness contracted in childbirth is due to the neglect of proper precautions against this disease, and the Local Government Board issued an Order, which came into operation on April 1st, 1914, extending the compulsory notification of the disease to every sanitary district in England and Wales.

Five cases since then have been notified, the mothers in each case having been attended by midwives. In no instance was the disease of a severe type.

ACUTE POLIOMYELITIS.—This disease has long been known under the name "Infantile Paralysis" as a form of paralysis of which sporadic cases occur chiefly in children and less frequently in adults. But of recent years a number of local outbreaks have occurred in England. Only one

case was notified during the year, that of a child four years old, who made a fair recovery.

CEREBRO-SPINAL FEVER.—No case has been notified.

GLANDERS, ANTHRAX AND RABIES.—No cases of these diseases have occurred in man and no cases have been reported in animals.

PULMONARY TUBERCULOSIS.

Year	Deaths. All Ages	Under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwards
1908	50	0	3	1	15	30	1
1909	54	0	4	2	13	33	2
1910	39	1	1	1	8	28	0
1911	54	0	1	4	19	30	0
1912	56	0	2	5	16	35	0
1913	44	1	0	4	12	27	0
1914	48	0	0	1	14	32	1

Other Tubercular Diseases.

Year	Deaths. All Ages	Under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwards
1908	1	4	4	3	5	5	0
1909	14	1	4	2	3	3	1
1910	21	2	11	2	1	4	1
1911	29	7	7	9	4	2	0
1912	11	2	4	1	1	3	0
1913	14	1	7	3	2	1	0
1914	15	2	3	3	1	6	0

There is no special hospital accommodation for cases of Phthisis at present.

DEATHS FROM PHTHISIS IN PUBLIC INSTITUTIONS.

Year	Workhouse	Infirmary.	Royal Infirmary.
1904	4	...	0
1905	6	...	0
1906	4	...	1
1907	2	...	2
1908	5	...	2
1909	2	...	4
1910	1	...	6
1911	1	...	2
1912	3	...	3
1913	2	...	0
1914	2	...	0

SUMMARY OF NOTIFICATIONS DURING PERIOD FROM 4TH JANUARY, 1914, TO THE 2ND JANUARY, 1915.

Number of Notifications on Form A.												Number of Notifications on Form B.				Number of Notifications on Form C.			
Age Periods	Primary Notifications.											Total Notifications on Form A.	Primary Notifications.				Total Notifications on Form B.	Poor Law Institutions.	Sanatoria
	Under 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 & upwards		Under 5	5 to 10	10 to 15	Total			
Pulmonary—																			
Males	4	7	12	17	11	6	2	...	59	...	...	...	...	4	26	
Females	...	1	...	3	9	11	8	11	2	2	...	47	...	...	...	...	1	8
Non-Pulmonary—																			
Males	2	2	1	1	..	...	4	...	...	10	...	...	...	...	..	...
Females	...	1	2	4	...	1	5	...	...	...	...	13	...	...	...	...	1	...

REPORT ON INSPECTION OF HOUSES IN WHICH CASES OF TUBERCULOSIS OCCURRED.

125 houses were inspected, and one or more defects were found in 64, viz. :—

Structural defects	...	...	...	...	...	38
Defective Drains	...	...	...	...	...	8
Defective Sanitary arrangements	...	...	...	...	...	25
Defective Ventilation	...	...	...	...	...	13
Defective Lighting (general)	...	...	...	...	...	8
Overcrowding ..	...	...	...	...	...	1
Dirty	...	...	...	...	...	16
Bad surroundings	...	...	...	...	...	10
Defective Lighting of Staircase	...	...	...	...	...	15

And the various occupations of the patients with Pulmonary Tuberculosis are set out in the following statement :—

Occupation.	Males.		Females		Other Forms.
	Pulmonary.	Other Forms.	Pulmonary.	Other Forms.	
Bolt Screwer	1	—	—	—	—
Bootmaker	1	—	—	—	—
Brass Founder	1	—	—	—	—
Carpenter	2	—	—	—	—
Charwomen	—	—	2	—	—
Clerks	2	—	—	—	—
Carters	2	—	—	—	—
Cycle Fitter	1	—	—	—	—
Coach Finisher	1	—	—	—	—
Deal Carrier	1	—	—	—	—
Domestic Servants	—	—	5	—	1
Draughtsman	1	—	—	—	—
Dressmakers' Apprentice	—	—	1	—	—
Dressmaker	—	—	1	—	—
Errand Boy	1	—	—	—	—
Factory Hands	—	—	4	—	—
Fitters	2	1	—	—	—
Hotel Boots	1	—	—	—	—
Housekeeper	—	—	1	—	—
Insurance Agents	2	—	—	—	—
Labourers	13	1	—	—	—
Lamplighter	1	—	—	—	—
Laundress	—	—	1	—	—

Occupation.	Males.		Other Forms.	Females.		Other Forms.
	Pulmonary.			Pulmonary.		
Machinist	—	...	—	1	...	—
Mason	1	...	—	—	...	—
Motor Driver	1	...	—	—	...	—
Plumbers' Apprentice	—	...	1	—	...	—
Painters	3	...	—	—	...	—
Pattern Maker	1	...	—	—	...	—
Railway Wagon Lifter	1	...	—	—	...	—
Railway Firemen	3	...	1	—	...	—
Shirtmakers	1	...	—	1	...	—
Stamp Driver	1	...	—	—	...	—
Shop Assistants	1	...	—	5	...	—
Stamper	1	...	—	—	...	—
Stonedresser	1	...	—	—	...	—
School Superintendent	—	...	1	—	...	—
Soldier	1	...	—	—	...	—
Ships' Firemen	2	...	—	—	...	—
Vinegar Maker	—	...	1	—	...	—
Waitress	—	...	—	1	...	—
Wagon Builder	1	...	—	—	...	—
Married Women	—	...	—	12	...	6
School Children	—	...	4	—	...	5
No Occupation	4	...	—	8	...	1
Others	6	...	—	4	...	—
TOTALS	62	...	10	47	...	13

ADMINISTRATION.

By an Order of the Local Government Board, 1913, all forms of Tuberculosis have to be notified.

When a case of Tuberculosis has been notified the Medical Officer of Health or one of his Officers visits the house where the patient is living, except in certain cases, when such a visit is inadvisable, and then the Medical Officer of Health gets the assistance of the Medical Practitioner attending the patient.

A full investigation is made into the condition of the house and mode of life of the patient and as to any source of infection.

The patient and other members of the family are advised to consult the Tuberculosis Medical Officer at the Dispensary for not infrequently it has been found that the patient, although he is the first member of the family to come under observation, is not the original infecting case in the household.

Arrangements have been made for keeping card records of such inspections, etc. Provision is also made for the microscopic examination of the sputum. Pocket flasks, spitting cups, with a disinfectant and paper handkerchiefs, are supplied to the patients, also leaflets giving hints for "Prevention of Consumption."

All necessary disinfecting and cleansing is seen to.

Subsequent visits are made by the inspectors of the Health Department in order to see that any defects in the house and surroundings are being put in order, while the Nurse attached to the Dispensary pays visits to the patient and family.

TREATMENT OF TUBERCULOSIS.

By an Order of the Local Government Board, dated 26th March, 1914, addressed to the County Council of Gloucester and to the Council of the County Borough of Gloucester, the Gloucestershire Joint Committee for Tuberculosis was constituted.

This Committee have the services of a Tuberculosis Medical Officer and an Assistant Tuberculosis Medical Officer.

Arrangements have been made for a period for the use of beds at Cranham Lodge Sanatorium, five of which are allocated to City patients, but as during the year hospital beds were not available, a larger number of beds, up to eight at times, have been given up to City patients.

During the coming year twelve beds will be available in a suitable pavilion erected at the City Isolation Hospital, ten of which will be available for City patients.

Arrangements are also being made with two General Hospitals for beds for surgical cases.

DISPENSARIES.—One of these is situated in the City and is open two mornings a week for City patients and patients in the immediate neighbourhood of the City. The Gloucester District Nursing Society have entered into an agreement with the Committee to provide a nurse to attend the Dispensary and to visit patients at their homes.

In connection with the Dispensary shelters are provided for those cases at home who, in the opinion of the Tuberculosis Medical Officer, will benefit from their use. The City Building Inspector supervises the erection and removal of these shelters.

In all respects there is co-ordination of the work between the Medical Officer of Health and Dr. Arnott Dickson, the Tuberculosis Medical Officer who has drawn up the following statement of the work at the Dispensary as regards City patients :—

DISPENSARY,

JANUARY 1ST TO DECEMBER 31ST, 1914.

Number of Patients under treatment—Insured.	...	54
Uninsured	...	38
		— 92
Number of Patients under observation—Insured	...	109
Uninsured	...	119
		—228
Total attendances at Dispensary by Patients	...	702
Number of Contacts examined	...	58
Number of Contacts found to be Tuberculous	...	8
Number of visits to homes by the Tuberculosis Medical Officers		27
Number of visits to homes by Dispensary Nurse	...	853

METHODS 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 disinfecter 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.

In cases where the medical attendant telephones particulars of a case and asks for removal to hospital this is done at once.

When it is not necessary to remove the case leaflets are left at the house 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. And after the recovery or death of the patient, the rooms that have been occupied are disinfected and any articles in them.

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

Sec. 59 of the Public Health Acts Amendment Act, 1907, is now in force and notice to that effect is left at all infected houses.

School "contacts" and absentees from the same class or in some cases absentees from the same school whose absence cannot be accounted for are also looked after.

Sec. 57 of the Public Health Acts Amendment Act, 1907, being in force in the City, notice is given to the parents of any child who is ill or in an infected house that such child must not be permitted to attend school until a certificate has been furnished by the Medical Officer of Health.

Notice of this is sent to the Head Teacher of the school.

NOTIFICATION OF COMMUNICABLE DISEASES BY SCHOOL TEACHERS.

The Regulations of the City Education Committee as to Schools and Communicable Diseases 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 and 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 by 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.

ISOLATION HOSPITALS.

THE FIELD FARM HOSPITAL (Small-pox only) has not been required this year, and is situated a little over two miles from the Guildhall. There is accommodation for 18 patients and it has been kept in readiness so that patients could be taken in on a few hours' notice. One of the ward blocks is a brick building with accommodation for eight patients in two wards, built according to the model plans of the Local Government Board. The rest of the hospital is composed of temporary buildings. The City water is laid on to the hospital.

THE CITY HOSPITAL AT OVER is about a mile and a half from the Guildhall, and has accommodation for fifty-six patients in four pavilions (ten wards).

Three of the pavilions are permanent buildings of brick, the fourth pavilion is a temporary building used for convalescent patients having sixteen beds in two wards.

In the coming year another pavilion will be erected, having accommodation for twelve cases of Pulmonary Tuberculosis according to plans approved of by the Local Government Board.

The Administrative Block will also be enlarged so as to provide accommodation for an increased staff.

The City Hospital.

In Hospital, January 1st, 1914. December 31st, 1914.

Scarlet Fever	47	19
Diphtheria	11	17

Admitted during 1914 from City :—Scarlet Fever 153, Diphtheria 134, Enteric Fever 4.

Admitted from Gloucester Rural District :—

Scarlet Fever	10.	Diphtheria	5.
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And a case of Scarlet Fever was admitted from Newent Rural District.

Ten of the Diphtheria cases died, being a deathrate of 7·1 per cent. Most of the cases having been ill for several days before admission.

One of the Scarlet Fever cases proved fatal.

AVERAGE NUMBER OF DAYS IN HOSPITAL :—

	Scarlet Fever.	Diphtheria.
Cases that recovered	42·7	30·03 days.
Cases that died	10	6·8 days

THE DISINFECTING APPARATUS, which is in the grounds of the City Hospital, is of Alliot and Paton's type of Lyons Disinfecter, and is used for disinfecting articles from houses where there have been cases of infectious diseases 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	...	...	...	...	471
Beds and Mattresses	...	...	...	...	260
Blankets, Sheets, etc.	...	...	...	...	695
Other Articles	...	...	...	...	366

LABORATORY REPORTS.

Arrangements have been made for the microscopic examination of

- (1) " Swabs " taken from Throats ;
- (2) Sputa from suspected cases of Tuberculosis ; and
- (3) Specimens in cases of Enteric Fever.
- (4) Specimens in cases of Cerebro-Spinal Fever.

263 specimens of (1) and 78 specimens of (2) being reported on during the year

109 specimens of (1) and 21 of (2) having been sent by Medical Practitioners, 54 specimens of (2) by the Tuberculosis Medical Officers, and 154 specimens of (1) and 3 of (2) being sent by the Medical Officer of Health, but no examinations were made of (3) or (4).

COMMON LODGING-HOUSES.

There are 7 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. Three cases of Pulmonary Tuberculosis were removed from them to the Workhouse.

These houses are kept in fair order by the proprietors, who are always willing to give any information that may be required of them.

By Sec. 91 of the Gloucester Corporation Act, 1911, the registration of a Common Lodging-house has to be renewed annually.

And by Sec. 92, when a dangerous infectious disease is supposed to exist the Medical Officer of Health is, under certain conditions, authorised to medically examine any person found in a Common Lodging-house.

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

There are 20 on the register. 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.

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 as to the bye-laws being complied with.

In recent years the large fringe of outside districts taken into the City has afforded good sites for building purposes, and the erection of new and improved dwellings for the artisan 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 older parts are, from the lapse of years, become somewhat decrepit.

During 1914 no houses were built to let at a rent within the limit applicable to the District under Section 14 of the Housing, Town Planning, &c., Act, 1909.

The following extracts from the report of an enquiry by the Board of Trade into Working Class Rents, 1912, gives a good idea of the rents and the better class of house occupied by working people in Gloucester:—

"Predominant Rents."

Four rooms	...	...	...	...	3/6 to 4/6
Five rooms	...	...	...	...	4/6 to 5/9
Six rooms	...	...	...	...	5/3 to 6/6

“ Working people live, as a rule, in two-storied houses of four, five or six rooms. Of these the five-roomed type predominates, it contains a sitting room and kitchen (with scullery) and three bedrooms above, the smallest bedroom being over the scullery.

In four-roomed cottages the scullery is sometimes lacking.

In the case of houses of six rooms, there is an additional living room on the ground floor, the scullery is not built over.

There is usually a small back garden, and in houses of five and six rooms small forecourts and bay windows are frequently found, but the majority of four-roomed dwellings are built direct from the pavement.”

But there is an inferior class of house let at rents of 2/6 to 3/- a week and situated in courts or in the older, narrower and inferior streets where one w.c. has to serve for two or three houses, and where each house is not provided with a sink and a separate water supply, a common washhouse being provided for a group of several houses, and a common tap in the court yard.

The methods of procedure followed in order to give effect to the provisions of Sub-section 1 of Section 17 of the Housing, Town Planning, &c. Act, were set out in the report for 1912, and may shortly be thus stated :—

The Medical Officer of Health prepares from time to time lists of the dwelling-houses which, in his opinion, it is desirable to inspect ; the Chief Inspector of Nuisances or the Senior Inspector of Nuisances then inspect such houses and report to the Medical Officer of Health. Where the owners on receiving preliminary notices undertake to carry out the necessary repairs no further steps are taken provided their undertaking has been satisfactorily carried out.

In the cases of houses where a special report is made as to their condition being such that it might be necessary to make a representation as to their being dangerous or unfit for human habitation, the Medical Officer of Health makes an inspection together, if necessary, with the Deputy City Surveyor who prepares any necessary specifications of work required to be done.

The Housing Sub-Committee then inspect the houses together with the Officers, making a report to the Health Committee accompanied with any representations made by the Medical Officer of Health or the Deputy City Surveyor.

The Health Committee then give such instructions as they may consider necessary in each case or recommend the Council to make a Close Order.

STATEMENT, required by Article 5 of the Housing (Inspection of District) Regulations, 1910, in regard to the inspection of dwelling-houses under Section 17 (1) of the Housing, Town Planning, &c., Act, 1909.

Number of dwelling-houses inspected under and for the purpose of the Section	214
Number of dwelling-houses which were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation	43
Number of dwelling-houses in respect of which representations were made to the Local Authority with a view to the making of Closing Orders	40
Number of dwelling-houses in respect of which Closing Orders were made by the Local Authority	40
Number of dwelling-houses the defects in which were remedied without the making of Closing Orders	91
Number of dwelling-houses which, after the making of Closing Orders, were made fit for human habitation	4
General character of the defects found to exist in the dwelling-houses inspected :—	
Closet Accommodation	Fair in 125 houses
	Unsatisfactory in 89 "
Drainage	Fair in 152 "
	Unsatisfactory in 62 "
Light	Fair in 171 "
	Poor in 43 "
Circulation of Air	Fair in 134 "
	Poor in 80 "
Dampness	Fair in 115 "
	Bad in 99 "
Cleanliness	Fair in 88 "
	Dirty in 126 "

Sanitary Conditions of Yard and						
Outbuildings	...	...	...	Fair	in 143	houses
				Unsatisfactory	in 71	"
Arrangements for Ashes and						
Refuse	...	...	...	Fair	in 0	"
				Unsatisfactory	in 214	"
Flooring	...	...	...	Defective	in 50	"
Roofs	...	...	...	Defective	in 44	"
Gullies	...	...	...	Defective	in 51	"
Windows	...	...	...	Defective	in 65	"
Dilapidations (various)	...	...	...	Defective	in 98	"

The Water from City Mains in all cases.

During the year eight houses were demolished in respect of which Closing Orders had been made, and as regards the general character of the defects found to exist in the 45 houses in respect of which representations were made there were :—

General Dampness	...	...	...	...	in 25	houses
Windows not made to open	...	...	...	...	in 32	"
No through Ventilation	...	...	...	...	in 21	"
Dilapidated Walls and Ceilings	...	...	...	...	in 41	"
Dilapidated Floors	...	...	...	...	in 41	"
Defective Staircases	...	...	...	...	in 28	"
Defective Roofs and Spouting	...	...	...	...	in 34	"
Defective Water Closets	...	...	...	...	in 16	"

15 houses were in a dirty and verminous condition, and in 20 cases the paving of the yards were defective.

And the following table sets out the preliminary notices that were sent to owners of houses that were inspected :—

Outstanding 1913	...	...	...	...	92	
Served 1914	...	...	...	...	72	
					—	164
Complied with in 1913	...	...	...	...	91	
Outstanding December 31st, 1914	...	...	...	...	73	
					—	164

INSPECTION OF HOUSES IN WHICH THERE WERE CASES OF NOTIFIABLE AND OTHER INFECTIOUS DISEASES.

Number of houses inspected	...	...	563
Notices for defects to drains	...	...	145
Notices for other defects	...	...	98
Complied with	...	...	103
Outstanding	...	...	80

INSPECTION OF HOUSES ON ACCOUNT OF COMPLAINTS MADE.

Number of houses inspected	...	...	65
Notices for defects in drains	...	...	14
Notices for other defects	...	...	19
Complied with	...	...	18
Outstanding	...	...	15

OFFENSIVE TRADES.

Supervision has been kept over the various places where these trades are carried on. The shops where fish-frying is carried on are all supplied with special apparatus.

Among the offensive trades there are :—

Eleven dealers in rags, rabbit skins and bones.

Two dealers in hides, skins, etc.

One tallow and fat melter.

Three tripe boilers and thirteen butchers undertake their own tripe boiling.

Revised Bye-laws for offensive trades were passed by the Council and allowed by the Local Government Board, June, 1912.

SLAUGHTER-HOUSES.

There are 25 places where animals are slaughtered, a few of which come up to a moderate standard, but others cannot be said to be in a suitable state.

Three notices for the abatement of nuisances at slaughter-houses have had to be served during the year.

The Inspectors of Nuisances visit the slaughter-houses and the Medical Officer of Health also, while slaughtering is in progress and at other times.

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

UNSOUND FOOD.

No outbreaks of " food poisoning " have been reported during the year.

The Gloucester Corporation Act, 1911, contains provisions for regulating the manufacture and sale of ice cream or any similar commodity and for the inspection of the premises of dealers in ice cream.

Visits are made by the Medical Officer of Health and the Inspectors to the Market and to the various shops where meat, fish, and other articles of food are sold as well as to the slaughter-houses.

UNSOUND FOOD SURRENDERED AND DESTROYED DURING 1914.

BEEF—

1 Carcase	...	...	...	...	...	Tuberculosis
1 Carcase	...	...	...	...	...	Tuberculosis
1 Carcase	...	...	...	...	...	Tuberculosis
Part of Forequarter	...	...	...	...	...	Tuberculosis
Part of Forequarter	...	...	...	...	...	Tuberculosis
Part of Forequarter	...	...	...	...	...	Tuberculosis
Brisket	...	...	...	...	...	Tuberculosis
Skirting	...	...	...	...	...	Tuberculosis
Skirting	...	...	...	...	...	Inflammation
Forequarter (chilled)	...	...	...	...	...	Decomposing
33 Livers	...	...	...	...	...	Flukes
5 Livers	...	...	...	...	...	Tuberculosis
45 Livers	...	...	...	...	...	Cirrhosis
10 Livers	...	...	...	...	...	Abscesses
7 Livers	...	...	...	...	...	Inflammation
17 Lungs	...	...	...	...	...	Tuberculosis
2 Lungs	...	...	...	...	...	Pneumonia
11 Lungs	...	...	...	...	...	Pleurisy
4 Lungs	...	...	...	...	...	Abscesses
4 Lungs	...	...	...	...	...	Cysts
3 Heads	...	...	...	...	...	Tuberculosis
2 Heads	...	...	...	...	...	Actinomycosis
2 Tongues	...	...	...	...	...	Actinomycosis
2 Hearts	...	...	...	...	...	Tuberculosis
1 Heart	...	...	...	...	...	Pericarditis

2 Spleens	Tuberculosis
1 Stomach	Inflammation
1 Stomach and Mesentery	Tuberculosis

SHEEP—

Mutton	Decomposing
79 Livers	Flukes
29 Livers	Cirrhosis
8 Livers	Cysts
3 Lungs	Pneumonia
3 Lungs	Pleurisy
2 Lungs	Strongylus

PIGS—

1 Carcase	Died in transit
1 Carcase	Tuberculosis
5 Livers	Cirrhosis
3 Livers	Tuberculosis
2 Livers	Cysts
1 Liver	Inflammation
1 Liver	Abscesses
19 Lungs	Pleurisy
20 Lungs	Pneumonia
4 Lungs	Tuberculosis
1 Lung	Cysts
5 Kidneys	Nephritis
5 Hearts	Pericarditis
3 Heads	Tuberculosis
1 Offal	Tuberculosis

TURKEYS, 8 Decomposed

FRUIT—

144 lbs. Plums Decomposing

CASES OF TUBERCULOSIS MET WITH :—

24 Beasts

9 Pigs.

DAIRIES, MILKSHOPS AND COWSHEDS.

THERE ARE ON THE REGISTER :—

Milksellers in the City	103
Cowkeepers in the City	5
Cowsheds in the City	4
Milksellers residing without the City	56

Milksellers registered during the year	12
Milksellers given up during the year	18
Cowkeepers registered during the year	0
Cowkeepers given up during the year	0

PREMISES ON WHICH MILK IS SOLD :—

Dairy produce only	...	...	...	17
Refreshment houses	...	...	...	6
Provision shops	...	...	...	48
Greengrocers	...	...	...	12
Bakeries	...	...	...	2
Sweetshops	...	...	...	3
Dwelling-houses	...	...	...	25

From 28 of these the amount sold per day does not exceed one gallon.

SALE OF FOOD AND DRUGS ACT.

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

				PRELIMINARY SAMPLES. FORMAL SAMPLES.		
Milk	...	...	...	0	...	42
Skim Milk	...	...	...	0	...	1
Butter	...	...	...	36	...	2
Lard	...	...	...	18	...	0
Pepper	...	...	...	12	...	0
Coffee	...	...	...	12	...	1
Cocoa	...	...	...	1	...	0
Vinegar	...	...	...	17	...	1
				96	...	47

Except in the four instances set out below all the samples were reported to be "genuine."

A preliminary sample of Coffee was adulterated with 15 per cent. of chicory, but another sample afterwards taken was found to be genuine.

Sample 84A taken of Vinegar was found to be adulterated and consisted of Acetic Acid, water and burnt sugar. Sample 42 taken from same premises was found to be adulterated with Acetic acid and water, coloured with

caramel to the extent of 80 per cent., that is, it contained brewed vinegar to the extent of 20 per cent. and artificial vinegar to the extent of 80 per cent.

Informal sample of Vinegar 94A was found to be adulterated artificial vinegar (Acetic acid and water). In both cases the vendors were written to and cautioned by the Health Committee.

THE PUBLIC HEALTH (MILK AND CREAM) REGULATIONS, 1912.

I.—CREAM NOT SOLD AS PRESERVED CREAM :—

Number of Samples examined for a preservative, 4.

Number in which a preservative was reported present (Boric Acid), 2.

Both the samples in which Boric Acid .25 per cent. and .31 per cent. were reported present were taken at the same shop, one being a preliminary and the other a formal sample. The owner of the shop appeared before the Health Committee and explained that it was by an oversight that his wife had not affixed a label to the receptacle in which the cream was put, and the Committee warned him that a label must in all cases be used where a preservative had been added to cream.

2.—CREAM SOLD AS PRESERVED CREAM :—

(a) Correct statements made ..	...	...	...	4
Statements incorrect ..	...	...	...	0

TOTAL	4
----------	-----	-----	-----	---

(b) Milk Fat in samples of preserved Cream—

Above 35 per cent. ....	...	...	...	4
Below 35 per cent. ....	...	...	...	0

TOTAL	4
----------	-----	-----	-----	---

(c) There were no instances where (apart from analysis) the requirements as to labelling or declaration of preserved cream in Article V. (1) (2) of the Regulations have not been observed.

- 3.—No evidence of the addition of thickening substances to cream or preserved cream has been found.
- 4.—There are only three dealers from whom cream is in the first instance procurable, as a rule, in the City.

SMOKE NUISANCES.

But few complaints were received during the year, and if properly trained stokers were employed, and suitable fuel and boilers used by the various firms there would not be any cause for complaint.

CANAL BOATS.

A copy of the Canal Boat Inspector's Report is appended.

Again one has to point out that the most difficult matter to deal with is the question of overcrowding, for no amount of inspection on the part of the Canal Boat Inspector can prevent the boatmen taking more than the authorised number of persons on board after leaving the district, and this is not an uncommon cause of complaint from other Authorities. The overcrowding is usually due to there being an extra number of children taken in the boats. Should the Inspector be seen on his rounds the children are put on shore for the stated purpose of being sent home before the boats start.

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, notices of intention to practice were received from 24 midwives—one midwife being at the Union Infirmary, 10 midwives at the District Nurses Home and 14 working on their own account.

Considering the class to which the midwives working on their own account belong, and that the qualification in each case for their being on the roll is that they were in practice before the Act came into operation, a fairly satisfactory report can be made, but as in several cases they are illiterate the register of cases is not kept in a proper manner, and they are not capable of taking records of the temperature, and in some cases they are not so clean as they might be.

During the year 895 maternity cases have been attended by midwives whose names are on the roll, the total number of births registered during the year being 1,297, and in addition there have been 60 stillbirths.

In accordance with the rules of the Central Midwives Board, 113 notifications of sending for a Medical Practitioner and 32 notifications of cases of stillbirths have been received from midwives during the year.

Two cases of Puerperal Fever have been notified among the cases attended by midwives.

EDUCATION (ADMINISTRATIVE PROVISIONS) ACT, 1907.

The Medical Officer of Health devotes his whole time to the duties of the Council as Urban and Port Sanitary Authorities and as the Local Education Authority. He acts as School Medical Officer and his duties include the medical inspection of children in the Public Elementary Schools.

GENERAL SANITARY CONDITION OF PUBLIC ELEMENTARY SCHOOLS.

DRAINS are all connected with the City Sewers and are satisfactory.

SANITARY CONVENIENCES are good in the newer Schools and fair in the older Schools, but in some cases situated too near to the other buildings. Automatic flushing arrangements are provided at all the Schools.

LAVATORY BASINS are insufficient in some of the older Schools, and in some instances but little use seems to be made of them. In the newer Schools the arrangements are good.

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

VENTILATION is good in the newer Schools ; in the others, fair.

LIGHTING in the newer Schools is good and fair in the others, but, in some cases, improvements have recently been made. In some instances the arrangements of the desks is such that the chief lighting is not from the left hand side.

DESKS AND BENCHES.—In most of the older Schools old patterns are in use and dual desks in the others. In some of the Infant Departments suitable tables and chairs have been provided.

CLOAK ROOMS.—In two of the older Schools the accommodation is insufficient, in the newer Schools good and fitted with hot-water pipes, in the remainder, fair.

PLAYGROUNDS.—Although, in some instances, improvements have been made, those attached to the older Schools are not in an ideal condition ; the surface is unsuitable, being gravel, and the area is too limited. A portion at least should be made impermeable to wet. In the newer Schools the playgrounds are good, and, in some cases, have been improved during the year.

ABSTRACT OF SANITARY WORK DONE DURING 1914.

INSPECTIONS MADE, NOTICES SERVED, AND WORK DONE.

Primary :

Inspection of Houses, Drains, &c. ..	...	...	1799
Ditto. Dairies, Milkshops, &c. ..	...	...	289
Ditto Slaughter Houses ..	...	..	1496
Ditto Meat and other Articles of Food ..	...	...	357
Ditto Offensive Trades ..	...	..	130

Inspection of Marine Stores	...	...	...	78
Ditto Lodging Houses	...	...	...	240
Ditto Houses let in Lodgings	...	...	...	87
Re-inspections	...	...	...	4283
Special Inspections and on Complaints made	...	...	...	1285
Visits, &c.—Infectious Diseases	...	...	...	681
Notifications to Schools as to Infectious Diseases	...	...	...	1196
Drain Tests—Chemical	...	...	...	100
Ditto Water	...	...	...	549
Ditto Smoke	...	...	...	88
Drains and Water Closets cleared, etc.	...	...	...	147
New Drains and Soil Pipes	...	...	...	227
Intercepting Traps	...	...	...	42
Inspection Chambers	...	...	...	49
Ventilating Shafts and Air Inlets	...	...	...	80
Sink Waste Pipes disconnected	...	...	...	11
New Gully Traps and Troughs	...	...	...	457
New W.C.'s, W.C.'s repaired, New Basins, &c.	...	...	...	255
New Flush-boxes, Flush-boxes repaired, &c.	...	...	...	61
Water supply to Closets, Urinals, &c.	...	...	...	13
Yard Paving, Spouting and Roofs repaired	...	...	...	81
Overcrowding abated	...	...	...	14
Swine, &c., removed	...	...	...	4
Houses cleansed, &c. (Dirty or Verminous)	...	...	...	52
Houses Disinfected, &c.	...	...	...	548
Miscellaneous	...	...	...	402
Informal Notices Outstanding, 1913	...	...	...	186
Ditto, given during 1914	...	...	...	621
			---	807
Complied with December 31st, 1914				679
Outstanding December 31st, 1914	...			128
Statutory Notices December 31st, 1914	...			25
Complied with December 31st, 1914				24
Outstanding December 31st, 1914	...			1

The above Statutory Return includes all the work of the Staff, except that done under the Housing, &c., Act, 1909, Section 17, and the Factories and Workshops Act, 1901.

J. S. FORSTER, Assoc. R.S.I.,
Chief Inspector of Nuisances.

INDUSTRIAL EMPLOYMENT.

Amongst the various sources of employment in the City are the following:—Wagon and railway carriage works, foundries and engineering works, flour mills and saw mills, chemical works, oil mill, cement slabs manufactory, slate enamellers, cabinet works, match works, pickle and jam works, cuff and collar works, shirt works, pin factory, toy factory, clothing factory, joinery works, dyeing and cleaning works, horn and bone polishers, printing and bookbinding, dressmaking, etc.

The average numbers of women workers employed at factories and workshops are shown in the following table

FACTORIES AND WORKSHOPS WHERE FEMALES ARE EMPLOYED.

Average Number of Workers			Factories		Workshops			
	Factories	Workshops	Total	Married	Single	Married	Single	Total Females
Bones, Rags, etc. ...	—	3	3	—	—	9	8	17
Bone Polishers ...	1	—	1	2	6	—	—	8
Bookbinders ...	8	—	8	2	100	—	—	102
Bootmakers ...	—	2	2	—	—	1	3	4
Brush Makers ...	—	1	1	—	—	1	2	3
Cuffs and Collars ...	1	—	1	—	410	—	—	410
Dress and Millinery...	—	50	50	—	—	—	399	399
Flour and Tea Packers	—	1	1	—	—	—	6	6
Jam and Pickles ...	1	—	1	50	130	—	—	180
Laundries ...	3	5	8	10	25	6	9	50
Match Works ...	1	—	1	125	380	—	—	505
Paper, Bags, etc. ...	1	—	1	—	46	—	—	46
Photographers ...	—	4	4	—	—	—	11	11
Pin Makers ...	1	—	1	—	40	—	—	40
Sack Repairs ...	5	4	9	7	6	4	5	22
Shirt Makers ...	1	—	1	—	360	—	—	360
Slate Enamellers ...	3	—	3	3	12	—	—	15
Sail Makers ...	—	2	2	—	—	—	6	6
Seedsman ...	—	2	2	—	—	2	2	4
Tailors ...	1	14	15	6	50	—	65	121
Toy Makers ...	1	—	1	—	184	—	—	184
Upholsterers ...	1	6	7	—	9	2	13	24
TOTALS	29	94	123	205	1758	25	529	2517

FACTORIES AND WORKSHOPS.

The Workshops on the register at the end of the year were 276, and the Bakehouses 64.

The total number of visits made (including those for special purposes to Factories) amounted to 1,527, and 19 notices had to be served which were all complied with.

The defects found and remedied (several without requiring the service of a notice) were chiefly defective or insufficient sanitary accommodation and want of cleanliness.

HOMEWORK.

Lists were received from 26 firms employing 147 outworkers, all their homes being visited.

FACTORIES AND WORKSHOPS ACT.

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Inspections.	Number of Written Notices.	Prosecutions
Factories, including Factory Laundries ...	390	9	0
Workshops, including Workshop Laundries ...	997	7	0
Workplaces, other than Outworkers' premises included in Part 3 of this Report ...	140	3	0
Total ...	1527	19	0

2.—DEFECTS FOUND.

Particulars.	Found.	Remedied.	Number of Defects. Referred to H.M. Inspector	Prose- cutions.
<i>Nuisances under the Public Health Acts—</i>				
Want of cleanliness ...	4	4	0	0
Want of ventilation ...	0	0	0	0
Overcrowding ...	0	0	0	0
Want of drainage of floors ...	0	0	0	0
Other nuisances ...	6	6	0	0
Sanitary accommodation insufficient	8	8	0	0
„ unsuitable or defective	5	5	0	0
„ not separate for sexes	1	1	0	0

Offences under the Factory and Workshop Act—

Illegal occupation of underground bakehouse (S. 101)	0	0	0	0
Breach of special sanitary requirements for bakehouses (SS. 97 to 100) ...	19	19	0	0
Other offences	0	0	0	0
Totals ...	43	43	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.

Home Work. Lists of Outworkers (Sec. 107)—	Lists	Number of Outworkers
Household Linen	50	256
Carding, &c., of Buttons, &c.	2	38
	<u>52</u>	<u>294</u>
Notices served on Occupiers as to keeping or sending Lists		0
Outwork in unwholesome premises (Sec. 108)—		
Instances		0
Notices served		0
Outwork in infected premises (Sec. 109, 110)—		
Instances		0
Notices served		0

4.—REGISTERED WORKSHOPS.

Workshops on the Register (S. 131) at the end of the year	276
Bakehouses	64
Total number of workshops on Register	340

5.—OTHER MATTERS.

Class.	No.
Matters notified to H.M. Inspectors of Factories—	
Failure to affix Abstract of the Factory and Workshop Acts (s. 133, 1901)	0
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5, 1901)—Notified by H.M. Inspector	6
Ditto—Reports (of action taken) sent to H.M. Inspector ...	6
Other	0
Underground Bakehouses (s. 101)—	
In use at the end of the year	2

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

Medical Officer of Health.

January 7th, 1915.

CANAL BOATS ACTS, 1877-1884.

409 Inspections of Canal Boats have been made during 1914. 51 boats being found on which infringements were detected. The boats and occupants as a whole were found to be in fair condition.

The number of Infringements discovered and dealt with was 59

<i>a</i>	Registration	...	...	...	...	0
<i>b</i>	Notification of change of Master	...	...	...	...	0
<i>c</i>	Masters without Certificates	...	...	...	...	6
	Certificates not identifying the Owner with the Boat	...	...	...	...	7
<i>d</i>	Marking	...	...	...	...	9
<i>e</i>	Overcrowding	...	...	...	...	9
<i>f</i>	Separation of Sexes	...	...	...	...	1
<i>g</i>	Cleanliness	...	...	...	...	1
<i>h</i>	Ventilation	...	...	...	...	1
<i>i</i>	Painting	...	...	...	...	9
<i>j</i>	Provision of water cask	...	...	...	...	8
<i>k</i>	Removal of bilge water	...	...	...	...	2
<i>l</i>	Notification of Infectious Disease	...	...	...	...	0
<i>m</i>	Admittance of Inspector	...	...	...	...	0
<i>n</i>	Cabins damp or leaking	...	...	...	...	4
<i>o</i>	Defective smoke stacks	...	...	...	...	2

No legal proceedings have been instituted in connection with the Canal Boats Acts during 1914.

All infringements discovered have been dealt with by means of the usual complaint notes and by verbal notices to the owners and captains. 18 Complaint Notes from other Authorities have been attended to.

No case of Infectious Disease on any of the Canal Boats has been reported, and no boat has been detained for the purpose of cleansing or disinfection.

Total number of boats on Register December 31st, 1914:—

(a)	Ordinary canal boats	...	...	...	182
	Motor-propelled canal boats	...	...	...	1
	Steam-propelled canal boats	...	...	...	3
					186

(b)	Number of boats that cannot be traced	...	...	...	0
	Boats no longer in use	...	...	...	3

Number of boats registered during 1914:—

	Motor-propelled boats	...	...	...	0
	Other canal boats	...	...	...	5
	Boats registered owing to structural alterations	...	...	...	0

In addition seven boats were re-registered owing to change of ownership.

E. J. H. UPHAM, Cert. R.S.I.

Inspector of Nuisances and Canal Boat Inspector.

City of Gloucester.

STATISTICS FOR 1914.

New Houses, etc., built in the City, 1914—

New Church	...	...	...	...	...	1
New Picture House	...	...	...	...	...	1
New Houses	...	...	...	...	...	73
„ Workshops and Sheds	...	...	...	...	...	7
„ Stables	...	...	...	...	...	5
„ Motor Houses, &c.	...	...	...	...	...	4
Alterations and Additions	...	...	...	...	...	33
Old premises rebuilt	...	...	...	...	...	5
						<u>129</u>

Houses, &c., supplied with City Water at end of 1913... 12,238

Houses supplied with City Water during 1914 ... 75

Total number of Houses supplied with City Water end
of 1914 ... 12,313

R. READ,
City Surveyor

Table 1.

County Borough of Gloucester.

Vital Statistics of Whole District during 1914
and previous Years.

YEAR.		Population estimated to Middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		Transferable Deaths of Non-Residents registered in the district	Transferable Deaths of Residents not registered in the district	NETT DEATHS BELONGING TO THE DISTRICT.			
			Uncorrected Number	Nett		Number.	Rate.			Under 1 Year of Age.		At all Ages.	
				Number.	Rate.					Number.	Rate per 1,000 Nett Births.	Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13	
1909	... 49661	1215	1216	24'5	784	15'8			116	95	756	15'2	
1910	... 49870	1134	1139	22'8	772	15'5			98	86	720	14'4	
1911	... 50082	1260	1260	25'0	675	13'4	53	38	132	104'7	660	13'1	
1912	... 50310	1137	1135	22'6	705	13'9	43	42	119	104'4	704	13'9	
1913	... 50533	1205	1205	23'8	709	13'2	54	45	106	87'8	700	13'1	
1914	... 50759	1297	1296	25'4	761	14'29	44	45	117	90'2	718	13'46	

Area of District in acres (land and inland water), 2315.

Total population at all ages...	50,035	} At Census of 1911.
Number of inhabited houses ...	10,781	
Average number of persons per house	4·64	

Table II.

County Borough of Gloucester.

Cases of Infectious Disease notified during the Year 1914.

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.						POPULATION OF WARDS AND TOTAL CASES NOTIFIED IN EACH WARD.										TOTAL CASES REMOVED TO HOSPITAL.			
	At all Ages	At Ages—Years.					West	Kingsholm	East	Allington	South	Southend	Barton	Lower Barton	Tredworth	Tuffley (West)		Tuffley (East)		
		Under 1	1 to 5	5 to 15	15 to 25	25 to 45													45 to 65	65 and up-wards
Small-pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and Membranous Croup	167	...	31	111	15	8	2	...	8	15	18	21	10	23	25	8	22	11	6	134
Erysipelas ...	57	1	1	...	9	14	23	9	5	8	6	6	3	8	4	10	6	...	1	1
Scarlet Fever	189	...	47	111	27	4	...	...	5	8	7	13	11	33	24	28	29	15	16	153
Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	13	...	...	6	4	2	1	...	1	1	...	1	2	4	1	1	...	...	2	9
Puerperal Fever	2	...	...	...	1	1	...	...	1	...	...	...	...	...	1	1	...	...	...	...
Cerebro-Spinal Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Polio-myelitis	1	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
Ophthalmia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Neonatorum	5	5	...	...	...	...	...	...	...	...	...	1	1	...	...	1	1	...	1	...
Pulmonary Tuberculosis	106	..	1	9	31	51	14	...	12	16	4	10	7	16	10	9	14	5	3	10
Others forms of Tuberculosis	23	...	2	10	2	5	4	...	4	2	...	3	2	2	3	1	3	...	...	...
TOTALS	563	6	82	248	89	85	44	9	36	51	38	55	36	86	67	59	75	31	29	307

Isolation Hospital—Over, near Gloucester; total available beds, 56; number of diseases that can be concurrently treated, 3.
 Field Farm, near Gloucester—Small-pox, 18 beds.
 Cranham Lodge Sanatorium—Tuberculosis.

Table III.

County Borough of Gloucester.

Causes of, and Ages at, Death during Year 1914.

CAUSES OF DEATH.	NETT DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT.									TOTAL DEATH WHETHER OF "RESIDENTS" OR "NON-RESIDENTS IN INSTITUTIONS IN THE DISTRICT
	All ages.	Under 1.	1 and under 2.	2 and under 5	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and up- wards	
All causes—Certified ...	705	113	20	27	29	31	83	144	258	156
„ Uncertified ...	13	4	...	1	...	...	...	..	8	...
Enteric Fever ...	2	...	...	...	1	...	1	...	..	...
Small-pox ...	...	...	...	...	...	...	...	...	...	...
Measles ...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever ...	2	...	...	1	1	...	...	...	..	...
Whooping Cough ...	7	4	1	2	...	...	...	...	...	...
Diphtheria and Croup ...	10	...	1	5	4	...	...	...	...	1
Influenza ...	9	...	...	...	...	1	1	4	3	2
Erysipelas ...	1	...	...	...	...	...	...	1	...	...
Phthisis (Pul. Tuberculosis) ...	48	...	...	...	1	14	21	11	1	5
Tuberculous Meningitis ..	2	2	...	...	...	...	...	...	...	..
Other tuberculous diseases	13	...	2	1	3	1	2	4	...	3
Cancer, malignant disease	56	...	...	...	...	...	5	28	23	10
Rheumatic Fever...	4	...	...	...	2	1	1	...	...	1
Meningitis ..	7	2	3	1	...	1	...	...	...	2
Organic Heart Disease ...	62	...	...	...	1	2	10	15	34	17
Bronchitis ...	76	12	...	4	...	...	1	15	44	10
Pneumonia (all forms) ..	88	25	6	11	4	1	9	13	19	23
Other diseases of Respiratory organs ...	7	...	...	...	1	...	...	1	5	1
Diarrhoea and Enteritis ...	14	9	1	1	..	...	3	...	..	...
Appendicitis and Typhlitis	...	...	...	...	..	...	...	...	...	..
Cirrhosis of liver...	6	...	...	...	...	...	1	5	...	4
Alcoholism ...	3	...	...	...	...	...	1	2	..	1
Nephritis & Bright's Disease	23	..	...	...	..	...	2	7	14	6
Puerperal Fever ...	...	...	...	...	...	..	...	...	...	..
Other accidents & diseases of Pregnancy & Parturition	5	...	...	...	...	..	5	...	...	3
Congenital Debility & Mal- formation, including Premature Birth ...	48	47	1	...	...	...	...	...	...	4
Violent Deaths ...	27	2	1	1	6	3	3	6	5	10
Suicides ...	5	...	...	...	...	...	3	2	...	2
Other Defined Diseases ...	186	12	2	1	5	5	14	30	117	51
Diseases ill-defined ...	7	2	2	..	...	2	...	...	1	...
ALL CAUSES ...	718	117	20	28	29	31	83	144	266	156

SUB-ENTRIES included
in above figures—

Pneumonia

44 3 1 5 3 1 8 11 12 13

Table IV.

County Borough of Gloucester.

Infantile Mortality during the Year 1914.

Nett Deaths from stated Causes at various Ages under
One Year of Age.

CAUSE OF DEATH.					Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks	Total under 1 Month	1-3 Months	3-6 Months	6-9 Months	9-12 Months	Total Deaths under One Year
All Causes	{	Certified ... ..	...	...	32	7	1	1	41	19	24	14	15	113
		Uncertified ... ..	...	...	3	...	...	...	3	1	...	...	...	4
{	Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chicken-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
{	Measles ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
	Scarlet Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
{	Whooping Cough ... ..	...	...	...	...	...	...	...	...	1	2	...	1	4
	Diphtheria and Croup ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
	Erysipelas ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
{	Tuberculous Meningitis ... ..	...	...	...	...	...	...	...	...	...	...	1	1	2
	Abdominal Tuberculosis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
	Other Tuberculous Diseases ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
	Meningitis (<i>not Tuberculous</i>) ... ..	...	...	...	...	...	...	...	...	...	...	1	1	2
	Convulsions ... ..	...	...	...	...	2	...	...	2	1	...	...	...	3
	Laryngitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bronchitis ... ..	...	...	...	...	...	...	...	...	...	8	2	1	11
	Pneumonia (all forms) ... ..	...	...	...	...	...	...	...	...	3	12	2	8	25
{	Diarrhoea ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
	Enteritis ... ..	...	...	...	...	...	...	...	...	2	3	4	2	11
	Gastritis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
	Syphilis ... ..	...	...	...	...	1	...	...	1	1	...	1	...	3
	Rickets ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
	Suffocation, overlying ... ..	...	...	...	...	...	...	...	...	1	1	...	...	2
	Injury at Birth ... ..	...	...	...	...	1	...	...	1	...	...	...	...	1
	Atelectasis ... ..	...	...	...	...	3	...	...	3	...	...	...	...	3
{	Congenital Malformations ... ..	...	...	...	...	3	...	...	3	...	...	...	...	3
	Premature Birth ... ..	...	...	...	...	23	4	1	1	29	1	...	...	30
	Atrophy, Debility, and Marasmus ... ..	...	...	...	...	5	...	...	5	2	3	1	1	12
	Other Causes ... ..	...	...	...	...	...	...	...	...	...	3	1	...	4
TOTALS					35	7	1	1	44	20	24	14	15	117

Births] legitimate ... 1242

,, illegitimate ... 54

Deaths] legitimate ... 111

,, illegitimate 6



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.

1914	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.			1914						
	Maximum	Minimum	Mean	Maximum	Minimum	Mean	Maximum	Minimum	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	Maximum	Minimum	Mean							
JANUARY ...	55	22	38.9	74	35	54.8	100	65	88.0	30.60	29.68	30.13	15	13	6 20	48 40	17	14	.63	46	43	44.4	JANUARY						
FEBRUARY ...	59	29	44.8	92	58	78.1	100	73	85.4	30.15	28.60	29.74	22	28	7 40	113 10	48	17	2.45	45	43	44.5	FEBRUARY						
MARCH ...	63	29	45.1	108	61	81.8	100	64	82.7	30.20	28.77	29.60	19	31	8 30	119 0	38	26	2.85	45	45	45	MARCH						
APRIL ...	75	33	51.6	112	79	99.6	93	58	71.9	30.56	29.40	30.08	24	30	12 40	261 40	27	11	1.11	50	46	47.5	APRIL						
MAY ...	75	32	53.4	116	71	98.4	87	55	70.2	30.45	29.46	30.12	23	30	12 20	196 50	32	15	1.43	53	50	51.4	MAY						
JUNE ...	83	44	60.5	123	88	110.3	93	54	70.4	30.43	29.62	30.09	36	30	13 10	256 30	1.41	9	3.11	59	53	55.8	JUNE						
JULY ...	87	43	62.1	126	89	110.0	88	55	73.9	30.24	29.54	29.93	35	31	13 30	201 10	94	21	3.57	61	59	60.5	JULY						
AUGUST ...	84	43	63.0	121	77	107.6	94	61	79.3	30.37	29.60	30.05	41	31	12 30	206 40	42	20	1.85	62	61	61.1	AUGUST						
SEPTEMBER...	81	33	57.3	117	81	101.0	94	61	76.3	30.45	29.49	30.10	26	30	10 40	209 50	28	8	.96	63	59	61	SEPTEMBER						
OCTOBER ...	65	37	52.1	109	60	85.7	100	65	84.2	30.46	29.35	30.03	30	27	8 20	110 50	34	15	1.74	59	55	57	OCTOBER						
NOVEMBER ...	59	22	41.7	92	40	68.2	100	73	86.6	30.54	29.30	29.87	18	26	6 20	74 20	54	20	2.96	55	49	52.5	NOVEMBER						
DECEMBER ...	55	26	41.2	83	40	57.5	100	71	88.6	30.16	28.81	29.56	22	21	6 20	62 10	1.02	22	5.44	49	46	47.6	DECEMBER						
														328				No. of Rainy Days, 198. Total Rainfall for the year, 28.10 ins.											
The highest temperature (87° Fahr.) was recorded on July 1st. The lowest (22° Fahr.) on Jan. 1st and Nov. 18th.														Maximum (126° Fahr.) recorded July 1st.			The highest pressure (30.60 inches) was recorded January 1st. The lowest (28.60 inches), on February 22nd.			15° F. recorded on January 23rd.			No. of hours } hrs. mins. Sunshine } 1860 50 during Year }			Greatest Rainfall in one day, 1.41 inches, recorded June 9th.			

Gloucester Port Sanitary Authority.

REPORT

OF THE

PORT MEDICAL OFFICER OF HEALTH

FOR 1914.

**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.

During the year the following ships have been inspected by the Officers of the Bristol Port Sanitary Authority in Kingroad or Walton Bay :—

Date	Ship	Medically inspected	Disin- fected	Port of Sailing
Mar. 12 ...	S.S. Queenmore	... Yes ...	Yes ...	Bombay.
Apr. 14 ...	S.S. Strathleven	... Yes ...	Yes ...	Bombay.
Aug. 3 ...	S.S. Clan Forbes	... Yes ...	Yes ...	Bombay.
Sept. 3 ...	S.S. Clan Macpherson	Yes ...	Yes ...	Bombay.
Oct. 2 ...	S.S. Clan MacLachlan	Yes ...	Yes ...	Bombay.

When ships coming from plague infected ports arrive at Sharpness they are not moored close to the quay, their hawsers are collared to prevent rats passing to or from the ship, and any gangway is taken up at night, a watchman being placed on board.

When the cargo is discharged the ship is fumigated with sulphur and the rats thus destroyed are burnt in the furnaces.

Four ships were thus dealt with, but in the case of two others this could not be done as they only had part of their cargoes discharged at Sharpness.

Ships coming from Cholera infected ports are supplied with a fresh supply of drinking water while in Sharpness Docks.

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, who visited a ship.

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 ships 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, who is stationed at Sharpness, is also Harbour Master. The Assistant Port Inspector of Nuisances is also Canal Boat Inspector and one of the Inspectors for the City, where he is stationed. He makes frequent visits to Sharpness Docks to make inspections of the ships and the entire work at the Gloucester Docks is in his hands.

SHIPS INSPECTED COMING "FOREIGN."

	No. Inspected		No. Defects		No. Notices		Complied with while in Dock
Steamships	115	...	30	...	27	...	23
Sailing ...	8	...	3	...	2	...	2
	<u>123</u>		<u>33</u>		<u>29</u>		<u>25</u>

SHIPS INSPECTED COMING "COASTWISE."

Steamships	41	...	3	...	2	...	2
Sailing ...	166	...	23	...	16	...	15
	<u>207</u>		<u>26</u>		<u>18</u>		<u>17</u>

NUISANCES AND DEFECTS.

Defective or foul water closets	...	...	...	10
Foul or dirty berths and forecastles	...	...	...	18
Living spaces with defective ventilation	...	...	...	7
Leakages into living spaces from defective decks or portlights	...	...	...	11
Defective or dirty receptacles for water supply	...	...	...	4
Various other defects	...	...	...	9
				<hr/> 59

COASTING VESSELS.

Among this class of vessel some (especially those where the master is the owner) are models of cleanliness and comfort. Improvement in the sanitary conditions of the remainder can be reported, but they require to be frequently inspected and special attention given to the water vessels or casks.

INFECTIOUS DISEASE.

No case of infectious disease was found in any ship arriving at Sharpness.

The Council, acting as the Port Sanitary Authority, have appointed the Port Medical Officer of Health, the Port Inspector and the Assistant Port Inspector of Nuisances as Officers for any of the purposes of the Port Sanitary Authorities (Assignment of Powers) Order, 1912.

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," approved of by the Local Government Board, have been adopted by the Council.

REGULATIONS

Made by the Gloucester Port Sanitary Authority, pursuant to Section 125 of the Public Health Act, 1875, for the removal to Hospital of persons brought within the District of such Authority by any ship or boat, who are infected with a dangerous infectious disorder.

1. In these Regulations the expression "The Port Sanitary Authority" means the Mayor, Aldermen, and Citizens of the City of Gloucester in the County of the City

of Gloucester, acting by the Council as the Port Sanitary Authority ; the expression " the District " means so much of the Customs Port of Gloucester as comprises the Gloucester and Berkeley Ship Canal and all docks and other works connected therewith, and as is included within the following limits, namely :—high-water mark in the several Parishes of Hinton, Hamfallow, Ham and Stone, Hill, Thornbury, Littleton-upon-Severn, Aust, and Northwick-with-Redwick ; a straight line drawn from the most easterly extremity of the Canal docks to a point, in mid-channel, of the River Severn, due north of the most northerly extremity of the Whinstone Rocks Beacon ; a line drawn in mid-channel from the last-mentioned point to the most northerly point of the lighthouse on Saint Tecla's Chapel ; and a straight line drawn from the last-mentioned point to the nearest point in the common boundary of the Customs Ports of Gloucester and Bristol : together with the waters of the said Port of Gloucester, and all rivers, pills, creeks, channels, harbours, and canals within the aforesaid limits, and the place or places for the time being appointed as the Customs Boarding Station or Stations for such part of the said Port, and the place or places which may from time to time be appointed for the mooring or anchoring of ships for such part of the said Port under any Regulations for the prevention of the spread of diseases issued under the authority of the Statutes in that behalf ; the expression " ship " includes a boat, the expression " Medical Officer of Health " includes any legally qualified Medical Practitioner lawfully authorised to act on behalf of such Officer, and the expression " dangerous infectious disorder " means any one of the following diseases :—

Small-pox
 Diphtheria
 Membranous Croup
 Scarlatina or Scarlet Fever
 Typhus Fever
 Typhoid or Enteric Fever
 Relapsing Fever
 Continued Fever.

2. These Regulations shall remain in force until they are revoked by the Port Sanitary Authority, or until fresh Regulations, under Section 125 of the Public Health Act, 1875, are made by the Port Sanitary Authority, and approved of by the Local Government Board.

3. Every Master or other person having charge of a ship arriving in the District with any person on board, whether a passenger or belonging to the ship's crew, suffering from a dangerous infectious disorder, shall stop on arrival in the tidal basin at Sharpness, and forthwith send notice to the Medical Officer of Health of the Port Sanitary Authority at the office of the Port Inspector of Nuisances at Sharpness, that there is a person on board suffering from such a disorder.

4. The Master or other person in charge of the ship shall cause her to remain in the said tidal basin until the Medical Officer of Health has boarded her.

5. The Medical Officer of Health to whom notice is given as aforesaid, shall, as soon as practicable, visit the ship, and ascertain whether the person referred to in the notice is suffering from a dangerous infectious disorder, and if in the opinion of the Medical Officer of Health he is, and can properly be removed, and proper accommodation can be provided for him in some hospital of the Port Sanitary Authority, or in some other hospital to which the Port Sanitary Authority are entitled to remove patients, the master or other person having charge of the ship shall forthwith cause such person to be removed to such hospital according to the directions of the Medical Officer of Health.

6. If any dangerous infectious disorder shall break out on board any ship arriving in the District, and after she has passed the said tidal basin at Sharpness, the master or other person having charge of such ship shall give notice to the Medical Officer of Health of the Port Sanitary Authority, at the office of the Port Inspector of Nuisances,

at Sharpness, or at the Guildhall, in the City of Gloucester, that there is on board a person suffering from such a disorder, and, if upon examination, the Medical Officer of Health shall find that he is so suffering, the master or other person in charge of such ship shall forthwith cause such person to be removed to a hospital to which the Port Sanitary Authority are entitled to remove patients, as directed by the Medical Officer of Health.

7. Every person who shall offend against any of the foregoing Regulations shall be liable for every such offence to a penalty of Forty Shillings.

HOSPITALS.—At Sharpness Docks, by the courtesy of the Dock Company, a hospital of 1 ward with 5 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 5 beds in 1 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.

The Steam Disinfecting Apparatus at the City Hospital would be available for the Port, if required.

FOOD INSPECTION.

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

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

IMPORTS "COASTWISE."—Flour, cheese, butter, vegetables in brine, linseed, fruits and meats in tins, rice, lard, condensed milk and bacon.

EXPORTS "COASTWISE."—Pickles, sauces, jams vinegar and flour.

The bulk of this "Coastwise" trade is in the hands of The Severn and Canal Carrying Company.

The Public Health (Regulations as to Food) Act of 1907, gave powers to the Local Government Board to make regulations under the Public Health Act, 1896, to prevent danger arising to the public health from the importation, preparation, storage and distribution of articles of food or drink (other than drugs and water) intended for sale for human consumption.

Two sets of regulations were issued by the Board, one dealing with unsound Food, and the other with Foreign Meat. An amending Regulation relating to Foreign Meat was issued on the 27th September, 1909, which came into force three days later.

The first set of Regulations is called the Public Health (first series Unsound Food) Regulations, which came into force on the 1st of October, 1908. These provide that articles of food which are unsound, unwholesome and unfit for human consumption, and which, as part of the cargo of a ship, are brought to a place in this country, either as a place of deposit or for transmission elsewhere in this country, shall be dealt with at the port of discharge.

The Medical Officer of Health is authorised by Art. IV. to examine articles of food which have been landed within the district, and if necessary to examine such articles before they are landed.

Power of taking samples is conferred by Art. VIII., and special examinations may be made at a laboratory. Power is also given under the same Art. for the temporary detention of consignments pending the completion of the examination.

The Council, with the approval of the Local Government Board, have appointed MR. UPHAM, Assistant Port Inspector of Nuisances, who holds a Certificate as Inspector of Meat and other Foods, as Assistant Officer under the General Orders of the 12th September, 1908.

UN SOUND FOOD DEALT WITH.

Maize ...	...	...	...	...	285 qrs. 5 bushels.
Barley ...	...	...	...	...	46 qrs. 2 bushel.
Wheat ...	...	...	...	...	83 qrs. 4 bushels.
Oats ...	...	...	...	...	26 qrs. 2 bushels

Your obedient Servant,

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

Port Medical Officer of Health.

March 1st, 1915.

ARRIVAL OF VESSELS FROM "FOREIGN."

From	Steam	Sailing	From	Steam	Sailing
Alexandria ...	3	—	New York ...	1	—
Amsterdam ...	1	—	Nicelaieff ...	2	—
Ancona ...	—	1	Novorossisk ...	1	—
Antwerp ...	1	—	Onega ...	3	—
Archangel ...	10	—	Oporto ...	—	1
Bahia Blanca ...	3	—	Picton ...	1	—
Barachois (Quebec) ...	1	—	Port Arthur ...	1	—
Bombay ...	5	—	Portland (Maine) ...	1	—
Buenos Ayres ...	5	—	Rafso ...	1	—
Calcutta* ...	1	—	Raumo ...	1	—
Casablanca ...	1	—	Riga... ...	6	—
Chatham, N.B. ...	1	—	Rosario ...	7	—
Civitaa Veechia ...	—	2	Rostock ...	1	—
Colberg ...	1	—	Rotterdam ...	1	—
Dantzic ...	5	—	Rouen ...	3	—
Dieppe ...	1	—	Samarang ...	1	—
Domjo ...	1	—	San Nicolas ...	1	—
Dunkirk ...	—	1	Sandviken ...	1	—
Faro... ...	—	1	Santa Fé ...	1	—
Galveston ...	1	—	Shediac ...	—	1
Hamburg ...	23	—	Soroka ...	3	—
Hernosund ...	2	—	St. John, N.B. ...	2	—
Karachi ...	2	—	St. Valery ...	2	1
Kherson ...	1	—	Stettin ...	4	—
Konigsberg ...	2	—	Sulina ...	1	—
La Plata ...	3	—	Taganrog ...	3	—
Memel ...	2	—	Trondheim ...	1	—
Mirimachi ...	2	—	Valparaiso ...	—	2
Montreal ...	2	—	Wasa ...	1	—
Munksund ...	1	—	Wyborg ...	1	—



