

## **[Report of the Medical Officer of Health for Kingston-upon-Thames].**

### **Contributors**

Kingston upon Thames (London, England). Council.

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BOROUGH OF  
 KINGSTON-UPON-THAMES.

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**Annual Report**

OF THE  
*Medical Officer of Health*

For the Year ending December 31st,

**1914.**



KINGSTON-UPON-THAMES

KINGSTON-UPON-THAMES :

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A Manual Report

Medical Officer of Health

For the Year ending December 31st

1914





## ANALYSIS OF WORK.

Visits of Enquiry—Nuisances	...	...	...	...	39
"    "    Unsound Food	...	...	...	...	4
"    "    Infectious Diseases	...	...	...	...	262
"    "    Rag and Bone Stores	...	...	...	...	8
"    "    New Rag and Bone Stores (shut up)	...	...	...	...	3
"    "    Swabbings of Throats	...	...	...	...	6
"    "    School Attendance Cases	...	...	...	...	310
"    "    Truants Certified	...	...	...	...	6
"    "    Bakehouses	...	...	...	...	60
"    "    Schools	...	...	...	...	23
"    "    Tuberculosis Cases	...	...	...	...	134
"    "    Cowsheds	...	...	...	...	13
"    "    Housing Acts	...	...	...	...	99
"    "    Overcrowding	...	...	...	...	4
"    "    Sewage Works	...	...	...	...	3
"    "    Lodging Houses	...	...	...	...	7
Houses suitable for Military Billets...	...	...	...	...	10
"    "    Isolation Hospitals for Military	...	...	...	...	14
Cleansing of Military	...	...	...	...	70

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Total Visits 1075

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Reports	...	...	...	...	22
Letters	...	...	...	...	60
Conferences and Consultations	...	...	...	...	23
Meat condemned	...	...	...	...	4
Notifications of Infectious Disease in houses in the Town...	...	...	...	...	61

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Total 170

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H. BEALE COLLINS.



EXTRACT FROM THE ORDER OF THE LOCAL  
GOVERNMENT BOARD.

23rd March, 1891.

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*Duties.*

Art. 18. The following shall be the duties of the Medical Officer of Health in respect of the District for which he is appointed.

- (1). He shall inform himself as far as practicable respecting all influences affecting or threatening to affect injuriously the public health within the District.
- (2). He shall inquire into and ascertain by such means as are at his disposal the causes, origin and distribution of diseases within the District, and ascertain to what extent the same have depended on conditions capable of removal or mitigation.
- (14). He shall also make an annual report to the Sanitary Authority, up to the end of December in each year, comprising a summary of the action taken, or which he has advised the Sanitary Authority to take, during the year for preventing the spread of disease, and an account of the sanitary state of his District generally at the end of the year. The report shall also contain an account of the inquiries which he has made as to conditions injurious to health existing in the District, and of the proceedings in which he has taken part or advised under any Statute, so far as such proceedings relate to those conditions ; and also an account

of the supervision exercised by him, or on his advice, for sanitary purposes over places and houses that the Sanitary Authority have power to regulate, with the nature and results of any proceedings which may have been so required and taken in respect of the same during the year. The report shall also record the action taken by him, or on his advice, during the year, in regard to offensive trades, to dairies, cowsheds and milk shops, and to factories and workshops. The report shall also contain tabular statements (on Forms to be supplied by Us, or to the like effect), of the sickness and mortality within the District, classified according to diseases, ages and localities.

- (15). He shall give immediate information to Us of any outbreak of dangerous epidemic disease within the District, and shall transmit to Us a copy of each annual report and of any special report. He shall make a special report to Us of the grounds of any advice which he may give to the Sanitary Authority with a view to their requiring the closure of any school or schools, in pursuance of the Code of Regulations approved by the Education Department, and for the time being in force.
- (16). At the same time that he gives information to Us of an outbreak of infectious disease or transmits to Us a copy of his annual report or of any special report, he shall give the like information or transmit a copy of such report to the County Council or County Councils of the County or Counties within which his District may be situated.
- (17). In matters not specifically provided for in this order, he shall observe and execute any instructions issued by Us, and the lawful orders and directions of the Sanitary Authority applicable to his office.



It should be remembered that these reports are for the information of the Board and of the County Council as well as of the Council of the District, and that a statement of the local circumstances and a history of local sanitary questions which may seem superfluous for the latter may often be needed by the former bodies.



# REPORT

OF THE

## MEDICAL OFFICER OF HEALTH.

MUNICIPAL OFFICES,

January, 1915.

GENTLEMEN,

I have the honour to present to you my Twenty-second Annual Report on the Health of the Borough of Kingston-upon-Thames.

Estimated Population, 39,133.

Birth Rate 20·4 per 1,000 per annum.

"	23·9	"	"	average of previous 10 years.
"	23·6	"	"	England and Wales, 1914.
"	23·6	"	"	" Small Towns, 1914.
"	21·9	"	"	England and Wales, rural, 1914.

Death Rate 13·47 per 1,000 per annum.

"	13·1	"	"	average of previous 10 years.
"	13·6	"	"	England and Wales, 1914.
"	12·9	"	"	Small Towns, 1914.
"	12·2	"	"	Rural Counties, 1914.

Death Rate 92 per 1,000 Births of Infants under 1 year.

"	95	"	"	average of previous 10 years.
"	105	"	"	England and Wales, 1914.
"	104	"	"	Small Towns, 1914.
"	93	"	"	Rural Counties, 1914.

Epidemic

Diseases 1·2 per 1,000 per annum.

TABLE I.

Vital Statistics of Births and Deaths for the Whole District during 1914 and previous Years.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.			
		Un-corrected Number.	Nett.		Number.	Rate.	of Non-residents registered in the District.	of Residents not registered in the District.	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	12	12	13
1906	36,276	941		26.0	623	17.1	136	23	113	120	488	13.4
1907	36,636	898		24.5	631	17.2	110	33	89	99	521	14.2
1908	36,996	952		25.7	662	17.9	163	23	90	94	497	13.4
1909	37,356	930		24.8	685	18.0	177	16	70	75	498	13.3
1910	37,716	865		22.9	506	13.4	126	16	72	83	430	11.4
1911	38,076	910	873	22.9	667	17.5	166	30	107	124	531	13.9
1912	38,483	861	835	21.7	613	15.9	144	46	87	96	514	13.3
1913	39,000	892	898	23.0	670	17.1	189	42	65	72	465	11.9
1914	39,133	803	...	20.4	724	17.5	197	59	75	92	527	13.4

Area of District in Acres (exclusive of area covered by water) 1,114  
 Total population at all ages (at Census of 1911) ... 37,977  
 Institutions within District receiving sick and infirm persons from outside District :—  
 Kingston Victoria Hospital. Workhouse Infirmary.  
 Royal Cambridge Asylum.

Number of inhabited houses (at Census of 1911) ... 8,726  
 Average number of persons per house ... 4.3  
 Institutions outside District receiving sick and infirm persons from the District :—  
 Brookwood Asylum. Richmond Hospital. Surbiton Hospital.  
 Military Hospital, Hounslow. Hampton Isolation Hospital.  
 County Small-Pox Hospital. Molesey Isolation Hospital.

TABLE II. Cases of Infectious Disease notified during the Year 1914.

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.								Secondary Cases.	TOTAL CASES NOTIFIED IN EACH LOCALITY (e.g. Parish or Ward) of the District.							TOTAL CASES REMOVED TO HOSPITAL
	At all Ages.	At Ages—Years.								1 Town Ward.	2 C'n'b'ry Ward.	3 Bar-racks.	4 Hill Ward.	5 Work-house.	6 Nrb'tn. Ward.	Not belonging to Kingston.	
		Under 1	1-5.	5-15.	15-25	25-45	45-65	65 and over.									
Diphtheria (including Membranous Croup) ...	70	1	17	42	3	6	1		5	8	21		12	3	26		21
Erysipelas ...	51 1†		5	10	2	14	17	4		9	9	1	8	2	22	1†	
Scarlet Fever ...	157		24	108	17	7	1		14	29	34		38	7	49		51
Enteric Fever ...	13			3	5	4	1			4	2		1	2	4		7
Puerperal Fever ...	8 2†				3	5		1*			2	1	1		2*	4	2*
Acute Poliomyelitis ...	1		1												1		
Pulmonary Tuberculosis ...	96		4	11	19	38	20	4		17	34		20	1	24		30†
Other forms of Tuberculosis ...	34		5	19	3	6	1			7	8*		11		8		6†
Ophthalmia Neonatorum ...	5	5									2				3		
Totals ...	438	6	56	193	53	81	41	8	19	74	112	2	91	17	141	3	115

‡ Brought in when ill to Workhouse Infirmary.

\* Cases came from Hampton and Teddington.

† Sanatorium Treatment, not under Insurance Act and otherwise not Workhouse Infirmary.

Kingston Victoria Hospital for Enteric Fever; Hampton Hospital for Scarlet Fever; Molesey Hospital for Diphtheria; Surrey Joint Hospital for Small Pox; and Sanatoria as available for Tuberculosis.



A memorandum of the Local Government Board calls for detailed information under certain headings which are dealt with seriatim.

*Physical Features and General Character of the District.*

The greater part of the District is on flat ground on the South bank of the Thames, but little raised above the level of the river. There is rising ground to the east of the Borough, extending almost to the top of Kingston Hill, a height of 144 feet. There is also high ground near the Cemetery, 59 feet. Nearly the whole of the district is now built over; of the 1,114 acres in the Borough there remain about 35 acres in the neighbourhood of Latchmere Brook bordering on Ham, and about 15 acres near the Dust Destructor, adjoining the Hogg's Mill stream. A few large mansions with gardens remain to be cut up into building plots sooner or later, but they are hardly large enough for a Town Planning Scheme. The higher parts of the town are on clay, the low-lying ground being mostly gravel.

In addition to the Thames, a small stream, the Hogg's Mill River, enters the Thames near the Market Place. This stream has a fall of about 25 feet in its passage through the Borough, and if it were not for two mill dams it would drain the district through which it passes very effectively. The banking up of the water keeps this neighbourhood rather damp, as the stream is very sluggish, but great improvements have been made in cleaning out the stream and camp shedding or otherwise improving the bank. Parts have been filled in and the condition of the adjoining houses improved. The effluents from the Sewage Works of Malden, Ewell and Epsom all discharge into the stream beyond the Borough boundary. The average summer flow is not above 10 or 12 million gallons daily, but this will increase as the effluent from the sewage works of these growing districts increases. It is under the control of the Thames Conservancy as regards pollution,

but regulations are badly needed in regard to the repair of banks, flooding, etc. This stream for the greater part is outside the Borough, but any damage caused by accident or neglect higher up is felt almost entirely within our boundaries.

*Social Conditions and Occupations.*

The population is roughly about 1000th of the total population of England and Wales. The distribution of population is about the same as for the country generally as to Male and Female, Rich and Poor and numbers of Children.

There is no staple industry. A large number of women are employed in Laundries, Soda Water Works, Beer Bottling, &c. In many cases these women are the keepers of the house as the men are only casually employed, on the river, &c.

There are fewer empty houses in the Borough than last year. Those of the better class are old-fashioned in design and not now popular. There is also less demand for big houses as the families of the well-to-do of all classes tend to be smaller. Amongst working class property there are not a great number of empty houses. Trading is largely restricted to the centre of the town since the advent of trams and motor omnibusses. A large flying machine manufactory has recently been started.

*Sewerage and Drainage—Its sufficiency in all parts of the District—Condition of sewers and house drains—Method or methods of disposal of sewage—Localities where improvements are needed.*

The sewerage and drainage of the town is good on the whole. Some parts of the district are flat and trouble occasionally arises during heavy rain storms. This difficulty is gradually being got over by laying separate surface water drains, and it is hoped that in a year or two a double system may be in force throughout the Borough. Manholes have been made over all sewers so that they can be readily cleaned out. This work has now been completed in all the main thoroughfares.



The house drains in modern property are in good condition. Many of the older houses have been brought into accord with the By-laws and opportunity is taken from time to time to get this done. Some trouble arises from the system of combined drains in certain districts. It is to be hoped that the law on this matter will be amended shortly, so that the present difficulties may be done away, thus obviating expensive law processes.

The sewage on arrival at the works is deodorized before pumping by mixture with Charcoal and Clay. It is then precipitated with Sulphate of Alumina, manufactured on the Works, in eight large settling tanks and is then conveyed through percolating filters before discharged into the Thames.

The tank capacity is 1,200,000 gallons, and the filter capacity 7,566 cubic yards.

The average daily flow from Kingston (pop. 39,000) and Hampton Wick (pop. 4,000) is about 1,640,000 gallons, equal to 39 gallons per head of population.

The sludge from the tanks is pressed. The treatment is known as the A.B.C. and at the works are under the sole control of the Corporation. The sludge is barged away by the Native Guano Co. who complete the process elsewhere.

Dr. Gilbert Fowler, of Manchester, describes the Kingston effluent as "perhaps the most brilliant clarified effluent produced in this country."

A large storm overflow tank has been installed, thereby preventing the discharge of untreated sewage into the river, on the occasions of heavy rainfall.

There is vacant land available for still further increasing the filtration area, and more settlement tanks could be provided, if necessary. The process shows itself to be increasingly satisfactory in comparison with other systems installed elsewhere, whether on

the score of efficiency of treatment or economy in working. It has one marked superiority in the production of a useful fertilizer as a bye-product. The filtered effluent contains about 1-pt. per million of Albuminoid Ammonia. It is clear, sparkling and free from odour, and not liable to putrefaction on keeping either at the natural temperature or in an incubator.

The works are in the centre of the Town and adjoin the Canbury Promenade and Public Gardens.

Sulphate of Alumina for precipitation is now made at the Sewage Works and the steam engines have been replaced by electric motors.

#### *Water Closet Accommodation.*

W.C.'s are universal in the Borough. Nearly all houses have one or more. The Corporation provide public w.c.'s and urinals adjacent to the Market Place and on the Canbury Gardens. New public urinals have been erected near the Railway Station and on the widened Kingston Bridge, making a total of eight under municipal control. Those attached to Public Houses are all under regular supervision.

#### *Pollution of rivers and streams in the District—The sources and nature of such pollution and any action taken to check it.*

The Thames is well looked after by the Thames Conservancy, and prompt action is taken if any sewage, &c., is carried into the river by sudden storms or if the sewage effluent is in any way unfit.

The Hogg's Mill stream which has been referred to, is also under the supervision of the Thames Conservancy, the nature of the water as it comes through the Borough is often most unsatisfactory. The legal difficulties in dealing with nuisances in regard to watercourses seem to be very great, and some simplification of the law is required.



The Latchmere Brook is partly in this district, and although a portion of it has been filled in it still serves to carry off a certain amount of surface water from the north-east part of the town. It is a very slow running stream and only partly under the control of this Corporation.

*Excrement Disposal—System in vogue—Defects, if any.*

Water carriage is universal, and satisfactory. I think nearly every closet in the town is now provided with a flushing cistern and the system works well.

*Removal and Disposal of House Refuse—whether by public scavenger or occupiers—Frequency and method.*

Certain streets are subject to a thrice weekly collection. In other streets the collection is every seven days, the dustbins being emptied by the dustmen. The collection is worked by the Corporation and the dust is taken to the Destructor in Oil Mill Lane and burnt. The form of Destructor is that known as the Beaman and Deas, supplied by Meldrum, Limited. It has two cells.

Some low lying ground outside the Borough but the property of the Corporation is being filled up with refuse from those streets adjacent thereto. The Corporation have recently purchased 32 acres of land adjacent to the land round the Dust Destructor. Part of this land is now laid out for Allotments and is being cultivated.

*Water Supply.*

A few shallow wells still remain, but the water supply is generally from the mains of the Metropolitan Water Board. There is a constant service and the character of the water is fairly good. A constantly increasing number of houses have taps on the main.

There are two common Lodging Houses under one management. They are well-conducted. One is an old building and one is new. A third Lodging House has been opened in an old public house which had lost its license. The house is roomy and well-kept. There are many houses let in lodgings, and By-laws in regard to them have been approved and a register of the houses is now being established.

*Places over which the Council have supervision, e.g., Lodging Houses, Slaughterhouses, Dairies, Cowsheds and Milkshops, Bakehouses, Factories and Workshops, and Offensive Trades.*

The six Slaughterhouses are used for killing a few sheep and pigs. They are kept in good condition.

The five Cowsheds are visited quarterly and are well-kept on the whole. The largest cowkeeper in the town has his shed very well-kept, and has appliances for cooling milk, sterilizing cans, &c., and is always doing everything he can to improve his premises.

#### *By-laws.*

The By-laws in force are fairly stringent and I do not think any addition is required at the present time, though they might be varied in certain particulars.

#### *Nuisances.*

These are dealt with as they arise, and except when elsewhere specially referred to, there is no cause for complaint.

*Methods of dealing with Infectious Diseases—Notification—Isolation Hospital Accommodation and its Sufficiency—Disinfection.*

Notification is in force for the usual diseases. Measles is not notifiable. Arrangements have been made by a Joint Committee of the County Council for the use of the two Smallpox Hospitals at Clandon and Whitemoor. Arrangements have been made with



the Hampton Isolation Hospital for treating cases of Scarlet Fever, and with the Molesey Isolation Hospital for Diphtheria from Houses when special circumstances render removal advisable. Most of the fatal cases of Diphtheria are moribund when notified, so that local Hospital Treatment would have little effect upon such cases. The isolation in hospital of ordinary cases of Scarlet Fever and Diphtheria has not been found necessary. Cases rarely spread in the households, and cases of infection being carried to other houses are unknown as far as I have been able to ascertain. Enteric Fever is treated in the Kingston Victoria Hospital, payment being made by the Corporation.

Disinfection is by burning sulphur in the rooms or by spraying with formalin. Bedding, &c., is sent to Lacey's, Wandsworth, but a Disinfector at the Dust Destructor is under consideration.

#### *The Condition of the Streets and Scavenging.*

This work is well done all over the town. The roads have wood paving in the central district and on the main roads where trams run, and further out rodament, tar macadam, plascom, or simple tarring has been laid down to prevent dust and mud. Watering is carried out daily in Summer, Sundays included. A special tank van is used for flushing sewers. This is used with greater frequency in Summer weather. The road surfaces compare very favourably with those in neighbouring districts, and the clean hard surface must to some extent diminish the amount of fog and enables people to get about in wet weather with much less discomfort and liability to colds.

## HOUSING OF WORKING CLASSES, 1910.

## (INSPECTION OF DISTRICT).

<i>a.</i>	Number of houses inspected	...	...	...	...	127
<i>b.</i>	Number of houses considered so dangerous or injurious to health as to be unfit for habitation	...	...	...	...	11
<i>c.</i>	Number of houses made fit (in group <i>b</i> ) for habitation without formal representation to Authority	...	...	...	...	4
<i>d.</i>	Number of formal representations with a view to closing orders	...	...	...	...	7
<i>e.</i>	Number of closing orders made	...	...	...	...	5
<i>f.</i>	Number of houses made fit without closing orders	...	...	...	...	nil
<i>g.</i>	Number of houses made fit after issue of closing orders	...	...	...	...	5
<i>h.</i>	Number of houses voluntary closed by owners	...	...	...	...	nil
<i>i.</i>	Number of houses voluntary demolished by owners	...	...	...	...	nil

## HOUSES REPORTED LAST YEAR.

Number closed and since demolished	...	...	...	9
Number of closing orders issued and suspended on appeal to Local Government Board	...	...	...	13
Houses made fit without closing orders	...	...	...	5
Houses made fit after closing order	...	..	..	1

Detailed reference is here given to the houses that have been dealt with during the year, and a statement given of the conditions as to property previously reported on.

127 houses have been inspected.



There have been no gross cases of overcrowding but several houses had more people in them than was satisfactory. The numbers were always reduced on representation to the owners, but without constant inspection of certain streets the numbers are often increased again. Owners in many cases agree to carry out the requirements and then neglect or delay to do as they have promised. In several cases of houses set forth in detail the work has been given to the tenants to do and they have apparently put off doing it or perhaps spent the money otherwise than on paint, etc. Two houses found unfit for habitation are still under consideration by the authority.

*Asylum Road.*—Nos. 1 to 7. Five room houses needing general repairs. These houses were all dealt with last year, but through the dilapidations of the tenants have had to be reported on again. There has been a change in the ownership.

No. 9 is a six room house. 11 persons in this house.

Nos. 11 to 31, five room houses.

Nos. 29 and 31 had three families in each, but one family left on representation being made.

Nos. 2 to 26, six room houses. Nos. 10 and 12 are registered as houses let in lodgings.

No. 28.—The ground floor of this house is used as a store and workshop. Three bedrooms up stairs.

No. 30 to 32, six room houses. This is a narrow street with houses opening directly on the pavement. There is a migratory population, coming, going and returning. The tenants of several of the houses are Italians, who sublet at a considerable profit to the less thrifty classes. There are no definite cases of overcrowding, but the houses are over occupied, so many of the rooms being let singly and never empty day or night, as this class of tenant seems to have nothing to do. Since the war the conditions are somewhat improved, as several men generally living here have joined the Army.

Nos. 36, 38, 40, 42, 44, Hampden Road. This short terrace of small houses have long been a source of difficulty, but recently the owner has died and the property has been sold. The new owner has rebuilt the back parts of all the houses, laid new drains, concreted the ground under the floor, inserted damp courses, added a scullery to each house, and built new w.c.'s, one to each house. They are now fairly well arranged four roomed cottages, and are let to respectable tenants.

The old houses were considered dangerous or injurious to health, and closing orders were issued.

Nos. 24, 26, 28, 30, 32, 34, Hampden Road. A terrace of small houses in fair structural condition. General repairs demanded. These are two roomed houses in fair condition. Work has been done, but neither the condition of the houses or the tenants are satisfactory.

*Vincent Road.*—19 to 47 and 34 to 60. Cleaning and repairs. Work carried out fairly well. 7 houses had 6 or 7 persons living in them the other less. Mostly six roomed houses. Chief rooms about 800 cubic feet.

*Tudor Road.*—3, 5, 7, 9, 11, 13, 15, 17, six roomed houses, badly built, not overcrowded, small rooms about 700 cubic feet, several very damp. Repairs carried out but in two cases required to be done over again. These two houses were considered to be unfit and injurious to health.

*New Road.*—2, 4, 6, 8, 10. Drains opened up and inspected. One house damp, concrete under floors. Damp courses and new floors needed. Not overcrowded. Rooms about 800 cubic feet.

*Brook Street.*—21A and 21B. Very small rooms. Narrow street. Floors below level of footway. No access to yards except through living rooms. Walls damp. Drainage beneath floors. Case of Puerperal fever in 21B. Considered so dangerous or injurious to health as to be unfit for habitation. Still under consideration.



*Canbury Passage.*—1, 5, 7, 19, 21, 23, 9, 11, 13, 15, 17, 25, 27, 29, 31, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55. No. 1 considered dangerous to health. Windows made to open. Concrete under floors. Drains repaired. Manhole. Yards cemented. General repairs.

5 to 23 old houses. 4 rooms. 700 cubic feet or less. Concrete under floors. Damp courses. General repairs carried out.

25, 27, 29, 31, 5-roomed houses. Rooms under 800 cubic feet. Drains relaid. Concrete under floors, and general repairs carried out. Not more than five occupants per house.

35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, four roomed houses. Concrete under floors. Damp courses were needed. General repairs carried out. Seven persons and under in these houses.

57, five roomed house. General repairs carried out.

2, 3, 4, 5, Canbury Place. Five-roomed houses. Concrete under floors and damp courses. General repairs. Drainage. Rooms under 800 cubic feet. One house 7 persons. Others 3 or 4. Houses require thorough cleaning.

1913.—Cambridge Road, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61. These thirteen houses were reported last year Closing orders were issued and the owner appealed to the Local Government Board. An enquiry was held and the owner agreed to put them in thorough repair. At present, after the lapse of a year, he has done nothing but make excuses. When first appointed Medical Officer of Health, I drew the attention of the Council to these houses, and after much consideration and delay the then owner was summoned before the Magistrates. He was fined £40 which he never paid, and given time for making repairs, during which he did a few superficial repairs to satisfy the Bench. The property after this constantly changed hands, and minor repairs and improvements were carried out, but the property still remains at one of the main entrances to the town an object lesson of the difficulties of Sanitary Officials.

*Cambridge Road.*—73, 74, 75, 76. These houses have been closed and pulled down.

1913.—Waller's Cottages, Bittoms, 1, 2, 3, 4, 5. These houses have been pulled down and the land cleared.

During the later months of the year the country has been engaged in a great war, and it would be hardly possible that such an event could have no effect upon public health. From August to the end of the year no case of Epidemic Cerebro-Spinal fever had occurred in the Borough, but one, if not two townsmen have died of this disease outside the town. Possibly one or two of the cases of Meningitis may have been this terrible disease in an unrecognized form. Since the end of the year under review several cases have occurred in the Borough, to which reference will be made at the proper time.

Small Pox is another disease we may expect to be brought home to us especially from the East, where it is rife amongst the Turks. This disease can be readily safe guarded against by Vaccination and re-vaccination, and it is strongly recommended that all un-vaccinated children should be vaccinated at once. When the disease appears Vaccinators will be very busy, and delay may be fatal.

Typhoid Fever is also likely to be brought over by invalids. Many persons apparently well are unfortunately carriers of this disease. There have been thirteen cases this year, as against one case in 1913. Persons are warned against uncooked shell fish, salads not properly cleaned, unsterilized milk, &c., &c.

The presence of troops in the town in billets for a short time caused special requirements to be arranged. The Military Authority reported to me the houses in which men had been billeted, and these were all visited and the conditions noted. On one occasion it was found that men had been billeted in a house



where a child was recovering from Scarlet Fever. Infection was not spread, but it was considered advisable to report to the Military Authorities the houses in which infectious cases occurred. This was done by sending the address of every case as it arose to the Barracks and the Drill Hall. In every case of doubt or difficulty there has been consultation between the Military Medical Staff and myself, and special reports have been made in all cases that showed urgency. Many houses were visited with a view to obtaining suitable quarters for billeting soldiers, and also for providing for the isolation of infectious cases occurring among the troops, but no final arrangements have been made, and all cases occurring up to the present have been suitably dealt with.

Whilst infectious diseases have been more numerous than usual among the civil population, the troops in this neighbourhood have only suffered from Mumps and Measles.

The occurrence of vermin in connection with billeted soldiers gave rise to considerable difficulty, owing to the absence of a disinfection station in the town. The cases were however effectually dealt, with partly at Lacey's at Fulham and partly at Hampton Isolation Hospital. Possibly other matters may arise, and one thing that may cause difficulties may be an abnormal rise in the number of illegitimate births, due to conditions it is unnecessary to specify. The notification of Births Act being in force in the borough, will bring all such cases to the knowledge of the Authority within a few hours of birth, and it is hoped that such arrangements as are necessary will be made to avoid the very heavy mortality that is common among such infants. It seems necessary that the mothers should be placed in such positions that they may be able to nurse their infants for several months after birth, and not be obliged to return to work and leave their babies in charge of other persons. This will be more particularly important during Summer and Autumn when hand fed infants are always killed off in large numbers by Epidemic Diarrhoea.

Many questions concerning public health are brought prominently to our notice by a great war. The chief defects of our unorganized ways of looking after and feeding the young people of the nation, is shown up by the large numbers of young men who are willing to serve as soldiers but who are found unfit either on recruitment or after a short period of training. There seems to have been a much smaller number of rejections than is usual for the Army, and this is probably due to a class of men who have come forward at their country's call, who in ordinary times would not present themselves to the recruiting officer. The total number of rejections from preventable defects will probably be 25 per cent. at the least, so that it is easy to see that there is a loss of considerably more men by unfitness than have as yet been lost to us by the casualties of the campaign. Much, no doubt, can be done by prevention and treatment of illness during school life, but during the first five years of life much damage is done to the physique of children by the circumstances of their environment.

Improper feeding, too much and too little. Improper clothing, too much and too little. Want of cleanliness of clothing and person, both tending to lower physique. The failure of many parents to rise to the necessities of the proper up-bringing of children, and the too prevalent belief that a child is a sort of property the only kind that many possess, and which they ignorantly declare they have the right to treat as they choose; it being their own.

As for better housing conditions great improvements are being made, but in other directions much requires to be done by instructions to mothers and older children, in the management of infants. Another period of life has often even more disastrous effects upon the physique of our youths. I refer to the years between leaving school and reaching manhood. This applies in a less marked degree to the girls. In another place I have shown that at 14 years of age there is very little difference between the elementary school boy in such a town as Kingston, and the Public School



boy, but at the age of 18 the physique of the Public School boy has greatly improved, whilst that of the boy who has left school earlier has deteriorated. The seeds of Tuberculosis are often sown during this age period. Possibly great advantages would accrue if some alteration could be made in the constitution of the Officers' Training Corps, so that all boys up to the age of 18 might be compelled to devote one or two days a week to physical training and preparation for military drill. The training of boys in rifle shooting would make training very popular, and after the age of 18 no difficulty would be experienced in getting young men to continue their military training, by joining the Territorial Regiments in their immediate neighbourhoods. The condition of the troops in this country at the present time testify to the physical advantages to be gained by men going through a military training, and a man in good health will prove a better industrial worker as well as a better soldier, and a better citizen if he can be brought up from birth in good health and taught how to keep it.

### DIPHTHERIA.

Seventy cases were notified, and 21 were sent to hospital. There were six deaths. Most of the cases were very mild. Bacillus found in most cases. Two persons from a very poor house with lodgers were sent to hospital, and sent back as not Diphtheria. In only three cases was there direct evidence of contact with another case, but in several others there had been cases of sore throat in the house.

Antitoxin was administered in most cases.

One child was not diagnosed by the medical man, who has since left the town. This child died in hospital. One case occurred in a child discharged from N.E. Hospital four days previously.

## ENTERIC FEVER.

Thirteen cases and four deaths.

March 25. Male, a boy of 15, usually winkles for tea on Sunday.

July. Female, aged 17. Diagnosed as appendicitis. Doubt arising, Widal reaction positive.

August. Male, aged 19, in Kingston Workhouse Infirmary.

August 17. Male, aged 40. A shoemaker. Origin not discovered.

September 23. Mother and daughter. No cause discovered.

September 27. Male, aged 35. Had been away at seaside.

October 3. Female age 19. This case finished in a curious way. The temperature rising every evening, whilst all other symptoms seemed absent, and patient felt well with good appetite. Neither Widal re-action nor T. B. were observed.

October 7. Male, aged 19. A mild case.

November 4. Female, aged 68. Greengrocery business. Symptoms obscure. Widal positive 1-20 ; 1-50 ; negative 1-100.

November 20. Female, aged 19. Recently married. Constipation. In Croydon three weeks before.

December 7th. Male, aged 38. Had Enteric in S. Africa during Boer War. Doubtful case.

December 18. Male, aged 13. Mild case. Winkles.

December 19. Female, aged 7. Ill about a week. Had been at St. Leonard's. Fatal.



## SCARLET FEVER.

157 cases were notified during the year, and of these 51 were sent to hospital. 14 of these cases occurred as secondary to a case previously reported, but in many cases more than one case is notified, all appearing to arise from a common source of infection. One case only was fatal. 3 cases occurred in the Kingston Victoria Hospital—three weeks elapsed between two of the cases. How the disease was introduced or kept up was not discovered. Eight cases occurred in connection with a large printing works: all the persons attacked being in one exceedingly large room. The primary case was in a girl who had a slight sore throat, and\*she seems to have been responsible for giving the disease to some of her co-workers and also to friends in houses in the town. The works were visited several times, and five persons who showed signs of being carriers (three sore throat, two herpes on the lips) were excluded from the works for 14 days, after which no other cases occurred. Seven persons came into the town as visitors and there developed the disease. Return cases: a mother developed the disease on the return of the child from hospital—a child contracted the disease three weeks after the other child returned from hospital, probably fresh infection.

The disease became prevalent during the summer and continued to the end of the year. One school was closed for one week. The type was very mild, and in several cases were only diagnosed from being connected with other cases in the same school or dwelling. In 11 cases, the only case was a child under school age. The closure was short as every susceptible child seemed to have been attacked and cleansing and disinfection was necessary.

## ACUTE POLIOMYELITIS.

One case was notified and made a fairly good recovery. A suspicious case was notified but the symptoms seem more likely to have been due to overwork in connection with a competition for young children. Younger than is advisable for competitions.

### PUERPERAL FEVER.

Eight cases of which three were fatal. It cannot be ignored that lead poisoning is a frequent cause of abortion, and it ought to be known that when used for that purpose, it is often fatal to the mother. In one of the three fatal cases recorded from Puerperal Fever, there were signs of lead poisoning. The child was born dead.

### TUBERCULOSIS.

The tables show the incidence of this disease according to housing and employment. The chief points are the number of fatal cases amongst adolescents. These cases occur in most instances without any apparent reason beyond the conditions of employment. In other words, a considerable number of persons are by inheritance or injudicious up-bringing in such poor condition, that they can only resist the attacks of this disease when living under ideal hygienic conditions away from workshops, offices, and the stress and strain of business.

### NOTIFICATION OF BIRTHS ACT.

Came into Force Feb. 1st, 1909.

	1909.	1910.	1911.	1912.	1913.	1914.
Total Births ... ..	850	863	873	861	898	803
Notified ... ..	792	738	762	743	748	649
Mothers Visited ...	48	30	37	38	56	39
Still Births notified ...	14	13	8	6	6	8
Attended by Midwives	254	343	376	346	418	354

Seven Midwives have registered to practice in the town. Other Midwives Act temporarily, and are so registered.

Five cases of Ophthalmia Neonatorum were notified but all very mild and yielded to treatment rapidly.

Several births occurring in the Workhouse Infirmary were not notified.

The cases are visited by the Medical Officer of Health.







TABLE III.

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

CAUSE OF DEATH.	Nett Deaths at the subjoined ages of "Residents" whether occurring within or without the District									Total Deaths, whether of "Residents" or "Non-Residents" in Institutions in the District.
	ALL AGES.	Under 1 year.	1 & under 2 years.	2 & under 5 years.	5 & under 15 years.	15 & under 25 years.	25 & under 45 years.	45 & under 65 years.	65 and upwards.	
1	2	3	4	5	6	7	8	9	10	11
All Causes { Certified (c) { Uncertified	527	78	17	15	21	25	75	126	170	351
Enteric Fever ... ..	4				1	2	1			3
Small Pox ... ..				2						
Measles ... ..	4	2		2						
Scarlet Fever ... ..	1			1						1
Whooping Cough ... ..	11	6	2	3						2
Diphtheria and Croup ... ..	6			2	4					2
Laryngitis ... ..	1		1							1
Influenza ... ..	1						1			1
Erysipelas ... ..	1	1								
Phthisis (Pulmonary Tuberculosis) ... ..	48			2	6	8	17	13	2	35
Tuberculosis Meningitis	4	1			3					2
Other Tuberculous Diseases ... ..	2		1				1			2
Cancer, malignant disease ... ..	42						2	21	19	24
Rheumatic Fever ... ..	2			1			1			1
Meningitis ... ..	4		2			1		1		2
Organic Heart Disease ... ..	39	1			2	5	7	14	10	11
Bronchitis ... ..	41	2					2	7	30	41
Pneumonia (all forms)	37	10	5	4	1	1	6	7	3	17
Other diseases of respiratory organs ... ..	4						4			6
Diarrhoea and Enteritis	18	15	3							18
Appendicitis and Typhlitis ... ..	4				3		1			5
Cirrhosis of Liver ... ..	11							8	3	1
Alcoholism ... ..	3						3			1
Nephritis and Bright's Disease ... ..	23				1		4	12	6	8
Puerperal Fever... ..	3					1	2			5
Other accidents and diseases of Pregnancy and Parturition ... ..	5	4					1			1
Congenital Debility and Malformation, including Premature Birth...	22	22								13
Violent Deaths, excluding Suicide ... ..	17	4				3	5	3	2	9
Suicide ... ..	5						3	1	1	6
Other Defined Diseases	157	6	3			4	14	36	94	126
Diseases ill-defined or unknown ... ..	7	4						3		7
	527	78	17	15	21	25	75	126	170	351

SUB-ENTRIES included in above figures:—

Cerebro-spinal Meningitis, all ages, 1; 15 and under 25 years, 1



### TUBERCULOSIS.—Notified Cases.

Conditions as to Housing and Employment and Nature of the Disease.

HOUSING AND EMPLOYMENT.			FORM OF DISEASE.				Males.	Females.
Unsuitable or Indifferent.	Fair.	Good.	With or without Tuberculosis History.					
1	1	—	Lungs.	{	Aged persons ... ..	without Tubercle History ...	—	2
3	—	—			" " ... ..	with " " ...	1	2
26	19	1			Active persons ... ..	without " " ...	24	22
18	9	2			" " ... ..	with " " ...	13	16
2	—	1			Meningitis ... ..	without " " ...	2	1
—	1	—			Lupus ... ..	with " " ...	—	1
—	1	—			Upper extremities ... ..	without " " ...	1	—
—	1	—			" " ... ..	with " " ...	—	1
5	2	—			Lower extremities ... ..	without " " ...	6	1
3	4	—			Glands ... ..	without " " ...	6	1
4	—	—			" " ... ..	with " " ...	2	2
3	1	—			Physically or Mentally defective	without " " ...	2	2
2	—	—			" " " " " "	with " " ...	2	—
15	3	—			No particulars ... ..	" " " " " "	14	4
—	1	—			Doubtful Diagnosis ... ..	" " " " " "	1	—
1	—	—	Death before Diagnosis ... ..	" " " " " "	—	1		
83	43	4					74	56
8	5	2	Deaths ... .. without Tubercle History ...				5	10
4	2	1	" " " " " " with " " " " " "				3	4
8	3	—	Deaths in cases notified in } without " " " " " "				8	4
5	2	—	former years } with " " " " " "				3	4

Deaths from Tuberculosis of persons not notified 13.



**Treatment of Tuberculosis Cases Notified.**

No. of Cases.	Satisfactory Results.		In Workhouse Infirmary.	Left Borough.	Remaining under Private Treatment.	Domiciliary Treatment S.C.C.	In Sanatoria.	In Hospital.	Dead.	Died of other Diseases.	Result of Sanatorium Treatment.		Result of Hospital Treatment.		Result of Tuberculu Treatment.		Fairly well.	Insured persons.	No. treated in Infirmary.
	Disease arrested.	Said to be well.									Arrested	Relieved	Arrested	Relieved	Arrested	Relieved			
Cases brought over from 1912 76	8	8	2	12	6	4	7	4	33	—	4	7	2	6	1	2	61	17	12
New Cases notified during 1913 164	4	11	16	12	18	1	10	3	21	—	7	17	1	5	—	—	12	28	12

## RAINFALL AT SEWAGE WORKS.

KINGSTON-ON-THAMES, 1912.

	† 1905	† 1906	† 1907	† 1910	† 1911	† 1912	† 1913	† 1914
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Jan.	·61	3·85	·82	1·85	1·34	3·77	2·93	·55
Feb.	·80	1·67	1·3	3·18	1·23	1·70	·91	3·00
Mar.	4·03	1·15	·85	1·19	1·59	2·90	2·89	4·68
Apr.	1·68	·49	3·45	1·36	2·06	·06	2·84	·98
May	1·03	1·26	1·73	1·89	2·36	1·44	1·88	1·37
June	4·84	2·71	2·27	2·73	2·35	3·78	·44	3·54
July	1·07	·90	1·13	3·84	·78	1·82	2·01	2·29
Aug.	2·85	1·21	2·42	2·97	1·11	5·71	1·78	1·94
Sept.	1·67	2·97	·51	·87	1·39	2·50	2·36	1·00
Oct.	1·36	4·37	3·99	3·15	3·21	2·53	5·59	1·38
Nov.	3·39	4·19	2·24	3·23	3·62	2·12	2·33	3·30
Dec.	·60	2·22	3·56	4·0	5·23	3·03	1·13	7·09
Total	23·93	26·99	24·27	30·26	26·27	31·36	27·09	31·12

† West Molesey.

† Kingston Sewage Works.

## SALES UNDER "FOODS & DRUGS ACT."

Table shewing Number of Samples Purchased and Proceedings Taken  
in Kingston during the Year 1914.

Articles Purchased.	Number of Samples.	Number Genuine.	Slightly Adulterated or Deteriorated.	Cases in which Proceedings were taken.	Convictions Obtained.	Fines Inflicted.
Milk ... ..	50	44	5	1	1	£4 3 0
Butter ... ..	28	39	1	1	1	£2 6 0
Cocoa ... ..	3	3	—	—	—	—
Lard ... ..	2	2	—	—	—	—
Margarine ... ..	1	1	—	—	—	—
Rice ... ..	1	1	—	—	—	—
Jam ... ..	3	3	—	—	—	—
Pearl Barley ... ..	2	1	1	—	—	—
Tinned Peas ... ..	1	—	1	—	—	—
<b>TOTALS</b> ... ..	<b>95</b>	<b>85</b>	<b>10</b>	<b>2</b>	<b>2</b>	<b>£6 9 0</b>

R. A HOUGHTON,  
*County Inspector.*



SANATORIUM BENEFIT UNDER THE  
INSURANCE ACT.

Number sent to Sanatoria ... ..	25
Resumed work ... ..	13
Improved in health ... ..	12
Number sent to Hospital .. ..	6
Resumed work ... ..	1
Improved ... ..	4
Dead ... ..	1
Number given Domiciliary treatment ... ..	3
Stationary ... ..	2
Joined the Army ... ..	1

Two persons had both Hospital and Sanatorium treatment. Other persons were sent to Hospital or Sanatoria through private efforts or were provided for by organisations outside the Act, *e.g.*, Water Board, Railways, &c.

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SANITARY INSPECTOR'S REPORT.

ABSTRACT OF NOTICES FOR THE YEAR 1914.

Choked and defective drains ... ..	330
New drainage to houses ... ..	42
Defective closets and syphons ... ..	40
Defective interceptors, traps, etc. ... ..	37
Defective soil pipes and ventilators ... ..	32
Defective water apparatus to closets ... ..	64
To lay on water supply to closets ... ..	6
To provide separate cisterns for flushing closets ... ..	4
Foul drinking water cisterns ... ..	58
To cleanse and limewash houses ... ..	120
To cleanse and disinfect houses ... ..	190
To cleanse urinals adjoining public roads ... ..	20
To repairs and alter urinals .. ..	3
Inspecting urinals adjoining public roads ... ..	1700
Dilapidated houses ... ..	40

Accumulation of manure, offal, etc. ... ..	74
Pig keeping (a nuisance) ... ..	2
Fowl keeping (a nuisance) ... ..	50
Overcrowding of houses ... ..	24

#### CANAL BOATS ACT, &c.

Canal Boats and Barges inspected ... ..	71
Offences in Contravention of Canal Boats Acts ... ..	14

#### NOTIFICATION OF INFECTIOUS DISEASES ACTS.

Visits to Infectious Diseases ... ..	420
Notices served to Householders, etc. ... ..	394
Notices served to School Attendance Officer ... ..	210
Notices served to Schools ... ..	300
Notices served to Librarian ... ..	90
Disinfecting houses after Infectious Diseases, etc. ... ..	825
Testing drains after Infectious Diseases ... ..	36

The Slaughter-houses, Cowsheds, Dairies, Milkshops and Lodging Houses have been visited at various times and found in a satisfactory condition.

#### MARKETS.

All the stalls have been kept under close observation, and there has been no cause for complaint.

During the year the following articles outside the precincts of the market has been condemned :—

1004lbs. of Beef.	119 Sheep's Plucks.
3 Sheep.	135lbs. of Tripe.
223lbs. Ox Livers.	15lbs. Skate.
80 Ox Tails.	2 boxes of Mackerel.
35lbs. of Beef Suet.	2 barrels of Herrings.

FRED. J. PEARCE, A.R.S.I., M.S.I.A.,

Sanitary Inspector.