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

Contributors

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BOROUGH OF

KINGSTON-UPON-THAMES.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

FOR THE YEAR ENDING DECEMBER 31ST,

1905.

GUILFORD AND HART, LIMITED,
PRINTERS,

KINGSTON-UPON-THAMES, AND 33, FURNIVAL STREET, LONDON, E.C.

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REPORT

OF THE

MEDICAL OFFICER of HEALTH.

CLATTERN House, January, 1906.

GENTLEMEN,

I have the honour to present to you my Thirteenth Annual Report on the Health of the Borough of Kingstonupon-Thames.

Birth Rate 26.2 per 1,000 per annum.

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,, 28.22 ,, average of previous 10 yrs.
,, 27.5 ,, England and Wales, small towns, 1904.
,, 26.8 ,, England and Wales, rural, 1904.
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Death Rate 11.6 per 1,000 per annum.

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,, 14.41 ,, ,, average of previous 10 yrs.
,, 17.6 ,, ,, England and Wales, do.
,, 16.2 ,, ,, England and Wales, 1904.
,, 15.6 ,, ,, Smaller Towns.
,, 15.3 ,, ,, Country Districts.
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Death Rate, 89 per 1,000 Births of Infants under 1 year.

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,, 136 ,, average of previous 10 yrs.
,, 154 ,, England and Wales,
small towns.
,, 146 ,, England and Wales, 1904.
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A memorandum of the Local Government Board, dated November, 1905, calls for detailed information under certain headings which are dealt with seriatim.

TABLE A.

Death Rates. Comparison of Town and Country Districts.

					1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Year.
ENGLAND AN	D WALES-	-)				33			
FOWN DISTRI Population 22,			Ten years' average 1891—1900		21·1	18.1	18-3	18.6	187
COUNTRY DIS)			20.0	16.5	14.4	16 0	17.5
KINGSTON, 18	95—1904				16.85	11-67	13.45	13.92	14.5
		I	Death ra	tes		on compar			000
		I	Death ra	tes		on compare 2nd Quarter.		4th Quarter.	Year.
		1 2 2	Death ra	tes				4th Quarter.	Year.
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896 897 898 899 9900 901 902	31, 32, 32, 32, 34, 34,	050 089 516			23·4 13·1 21·03 17·1 14·9 16·1 16·8 16·8	2nd Quarter. 12·7 11·06 8·9 12·5 12·0	3rd Quarter. 13.8 14.6 14.3 13.8 15.9	13·8 16·5 13·1 13·4 13·6	16·3 15·1 15·2 14·2 15·3
1897 1898 1899 1900 1901	31, 32, 32, 32, 34, 35, 36, 36,	050 089 516 Estimated			23·4 13·1 21·03 17·1 14·9 16·1 16·8	2nd Quarter. 12·7 11·06 8·9 12·5 12·0 11·3 9·4	3rd Quarter. 13.8 14.6 14.3 13.8 15.9 12.5 14.2	13·8 16·5 13·1 13·4 13·6 14·2 13·8	16·3 15·1 15·2 14·2 15·3 14·06

...

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 acres remain unbuilt on in the Gloucester Road, and a few large mansions with gardens may be cut up into building plots before many years are past. 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 three mill dams it would drain the district through which it passes very effectively. The banking up of the water keeps this neighbourhood very damp, and as the stream is very sluggish there is often a disagreeable odour in the neighbourhood of the middle mill where the stream broadens out to a shallow lagoon. Part of this has just been filled in and I hope will improve the condition of the adjoining houses. That there should be disagreeable odours in summer time is not surprising, as the effluents from the Sewage Works of Malden, Ewell and Epsom all discharge into the stream higher up. 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.

As if these conditions were not serious enough, the Surbiton District Council have recently proposed to remove their

sewage from the Kingston Sewage Works, where there is ample room to treat the whole sewage of the district for many years to come, and to treat their sewage at Tolworth, discharging the whole of their effluent into the Hogg's Mill stream. The estimated volume is one million gallons daily, but it must soon exceed that amount, and judging from the class of property now being erected at the south end of Surbiton and the constantly increasing use of baths, the volume is likely to amount in a very few years to nearly 3,000,000 gallons. At the present rate of building, Malden will soon be putting in 2,000,000 gallons, and Epsom and Ewell must be credited with a like amount. This will mean that the flow of the stream will be doubled, and as it must be remembered that the flow from sewage works is greater at certain times of the day than at others, it is possible that quite sufficient extra volume might be added at a critical moment to cause a flood that would otherwise be avoided. Owing to the tortuous course of the stream through the Malden meadows the water accumulates on the low-lying ground. Then, if a sudden heavy rainfall comes on, the water comes down with a rush into the town, and if the course of the stream were not hampered by mill dams, etc., it would run away quickly into the Thames. A specially bad obstruction is the brick arch carrying water mains (late Chelsea Co.). When the water rises to the crown of this arch its passage is blocked and the water floods the houses in Fairfield Place. If the volume of effluent is increased, it is clear that in flood time the addition of a few million gallons will cause a flood which would otherwise be avoided, and it is surely reasonable to call on the authorities contributing to this nuisance to so regulate the course of the stream that it will not become an intolerable nuisance to this town. The stream has always been a great trouble to us, and if the sewage effluents of these growing townships are to be allowed to be discharged to an amount that will double the flow of the river it will constitute a grave public danger.

As regards Surbiton and Malden the whole of the sewage from these districts could be treated on the present works at Kingston with both efficiency and economy. The chief occupations of the inhabitants, and the influence of any particular occupation on Public Health.

A large number of men are employed in printing works, and women are engaged in laundry work and in bottling beer and mineral waters. A considerable number of workers are employed outside the Borough, either in London, or in the wealthier districts adjoining Kingston. There is no employment directly affecting Public Health.

House accommodation, especially for the working classes—Adequacy and fitness for habitation—Sufficiency of open space about houses, and cleanliness of surroundings—Supervision over erection of new houses—Action under the Housing of the Working Classes Act.

The town is chiefly a working class town. The houses are generally of good character, but a few houses built about the middle of the last century are unsatisfactory. These are not bad enough to be condemned as unfit for habitation, but are badly built and badly planned and concrete has not been laid below the floors. These houses are confined to Cambridge Road and adjoining streets; upper part of Richmond Park Road; Cowleaze Road; Canbury Place; and the neighbourhood of Mill Street: with a few isolated houses in other parts.

There is no closeness of building except in the business neighbourhood of the Market place.

Pavement round the backs of houses is being introduced, and there will be little to complain of as regards cleanliness of surroundings when this is complete. Several minor streets and passages might with advantage be paved with impervious material such as "tar-mac." There is good supervision over new houses, no new house being certified for occupation till the requirements of the By-laws have been complied with.

No action has been taken under the Housing of the Working Classes Act, but I again draw your attention to my scheme for dealing with the worst area in the Town, that adjoining Cambridge road. I believe an improvement scheme on the lines I have suggested could be carried out with profit.

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.

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 is treated by the A.B.C. process, under contract with the Native Guano Co. Six filters have recently been added to bring the effluent up to the standard of the Thames Conservancy. Five of these filters are 100-ft. sq. by 3-ft. 9-ins. in depth and one is 100-ft. sq. by 3-ft. in depth. There is vacant land available for still further increasing the filtering area, and six new settlement tanks could be provided without difficulty. The process is satisfactory and the filtered effluent is as good as can be desired, being often under 0.5 per million of albuminoid ammonia, clear, sparkling, free from odour, and not liable to putrefaction on keeping either at the natural temperature or in an incubator. There is no doubt that the process is effective, and as regards other systems the only dispute is with regard to the cost.

At the Sewage works the sewage of Surbiton (13,000), Hampton Wick (4,000), and Kingston (38,000) is dealt with. The effluent amounts to about 3,000,000 gallons daily flow, and there would be no difficulty in dealing with double the amount on the area. The Surbiton District Council recently proposed to break away from this central drainage area, and establish works in another district where they must cause

damage to the interests of this town. The scheme has been defeated for the present, but may be renewed in another form, which should for the reasons stated meet with your strenuous disapproval.

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 against the Corporation 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 in a measure under the supervision of the Thames Conservancy, but the inspectors appear to take less interest in this tributary watercourse than in the main stream of the Thames. Reports often reach us of bad effluents being turned into the river from the Sewage Works on the banks, but on reaching the outfall the nuisance is always found to have been stopped. Our only evidence is the nature of the water as it comes through the Borough and this 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 every closet in the town is now provided with a flushing tank, 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 daily collection, in which case the refuse is placed outside the house in a suitable receptacle and removed by the dustmen. In other streets the collection is weekly, the dustbins being emptied by the dustmen. The collection is worked by the Corporation and the dust is

taken to the Destructors 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.

Water Supply.

A few shallow wells still remain, but the water supply is from the mains of the Metropolitan Water Board. There is a constant service and the character of the water is fairly good.

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

There are two common Lodging Houses under one management. They are well-conducted. One is an old building and one is new. There are many houses let in lodgings and By-laws in regard to them have been approved and steps will be taken shortly to make a register of the houses.

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

The four 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. It has not been possible to carry out the By-laws for Houses let in lodgings at present, but arrangements are being made to make them effective.

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—neither Measles nor Phthisis are notifiable. Arrangements are being made by a Joint Committee of the County Council for the treatment of Smallpox cases. In the meantime cases would be sent to Darenth or Barnet. Arrangements have been made with the Croydon Borough Hospital for treating cases of Scarlet Fever and Diphtheria from houses when special circumstances render removal advisable, and the arrangement answers well. Enteric Fever is treated in the Kingston Victoria Hospital, payment being made by the Corporation. 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.

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.

MEASLES.

Nine deaths from this disease; two under one year of age and the rest in very young children. The epidemic was considerable all over the Borough. There was no definite spread from one school to another, but the schools were not all attacked at the same time. On my recommendation the Elementary Schools were closed for 16 days, so as to tide over the incubation period, from April 14th. After this the epidemic soon died out, but the continuance of isolated cases and secondary cases amongst children who had been attacked at the beginning of the outbreak, show that the force of infection had worn itself out rather than that it had been checked by school closure. The inquiry instituted in Woolwich in 1902, at the instance of Dr. Kerr, by the School Board for London, has been carried on since, under the London Education Committee, by Dr. Thomas, and Dr. Davies the medical officer of health. Owing to the circumstance that in the eastern half of the borough an attempt was made to suppress every appearance of measles in a school by rigorous class closure, while in the western half the system of excluding individual children was followed, the inquiry has something of the value of a scientific experiment. The result of the experiment in 1903 was interesting. The statistics showed that class closure had been much more costly in interfering

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Erysipelas						i			1	
CANBURY. Pop	ulatio	on !	9,210.							
Scarlet Fever						10	1		11	
Diphtheria						3			3	
Enteric Fever				***		5			1 5	
Erysipelas Puerperal						1			1	
HILL. Population	11.5	250								
Scarlet Fever						16	8		24	1
Diphtheria						7				
Enteric Fever						2 7			2	
Erysipelas Puerperal Fever						7			2 7 1	
WORKHOUSE.	Popu	ılat	ion 820).						
Erysipelas				***		1	la listo		_1	42
NORBITON. Pop	oulat	ion	10,760							
Scarlet Fever	***			***		14			14 12	
Diphtheria Enteric Fever				**		11	1		12	
Erysipelas						8			8	
			Under 1.	1	5.	5-15.	15-25.	Ove		AL
Scarlet Fever				1	9	31	4	5		52

Diphtheria Enteric Fever		***			9	16	3	2		30
		***			1	1		3		4
Erysipelas		•••	4		1	2	, 5	10	2	22

with school work than the exclusion of individual children; in the eastern division of the borough 195 cases of measles had entailed a loss of 26,287 attendances, an average of 135 lost attendances for each case of measles; in the western division, 215 cases of measles had entailed a loss of 13,563 attendances, an average of 63 lost attendances for each case of measles. The loss of attendances under the system of individual attendance was thus less than half the loss under the other system of class or school closure.

SCARLET FEVER.

52 cases were notified during the year. Eight were sent to Hospital: two, because the mothers were too nervous to attend to the children: one mother had an abortive attack: a mother and child being attacked at the same time: and one as a paying patient.

Infection was traced to Hampshire, Wandsworth and Ascot. Two children were attacked five days after a sister returned from Stockwell Hospital, where she had been under treatment for Diphtheria. She was apparently free from infection.

A boy who had been sent out of the house whilst his brother was ill, was attacked seven days after his return, and nineteen days after the first patient had been declared well. There was no sign of desquamation or of discharge from nose or ears, and another child who had remained in the house all the time escaped. Clothing and toys had been disinfected or burnt.

In four houses more than one case occurred.

DIPHTHERIA.

Thirty cases were notified, with three deaths. The cases were mostly of mild type, and no connection was traced between any except three secondary cases occurring in three families.

ENTERIC FEVER.

Only four cases were notified. There was no death from this disease. In all, recovery resulted. Two cases were sent to Hospital. One suspected source of infection was water from the River Mole taken just below a sewage outfall, whilst out fishing.

ERYSIPELAS.

Careful enquiry was made in all cases in young children and all were found to be idiopathic in character. Two deaths resulted.

PEMPHIGUS.

One fatal case occurred in a newly-born child. The Midwife was excluded from practice for 14 days.

PUERPERAL FEVER.

Two cases were notified, both fatal. One case was in the practice of a Midwife who has now had her name removed from the Roll of Midwives. She did not wash her patient after the birth of the child and did not visit the patient again for sixteen hours. When the patient became seriously ill she ceased attendance, suggesting that a doctor should be sent for, but she did not herself send for medical aid, neither did she notify the case to me. The coroner's jury censured her for neglect.

RINGWORM AND INFECTIOUS IMPETIGO AND ITCH.

228 children were reported to me with these complaints. If thirty absences are allowed for each of these cases, and many of them are away from school for months at a time, 6,840 school attendances have been lost. With the greatest care it would be impossible to avoid a few cases, but I think the greater part of these absences might be avoided if proper care were taken of the cases. Working mothers have not the time to attend to these cases properly, but if a nurse could see each case two or three times a week and keep the hair cut and the head clean, the cases would get well much quicker. About three hours daily would be sufficient time for the nurse to give, including a visit to the schools to help the teachers in finding out cases in the early stages, so that it would be only necessary to engage a nurse for a part of her time. This should not run into any great expense, probably much less than the loss on the school attendances.

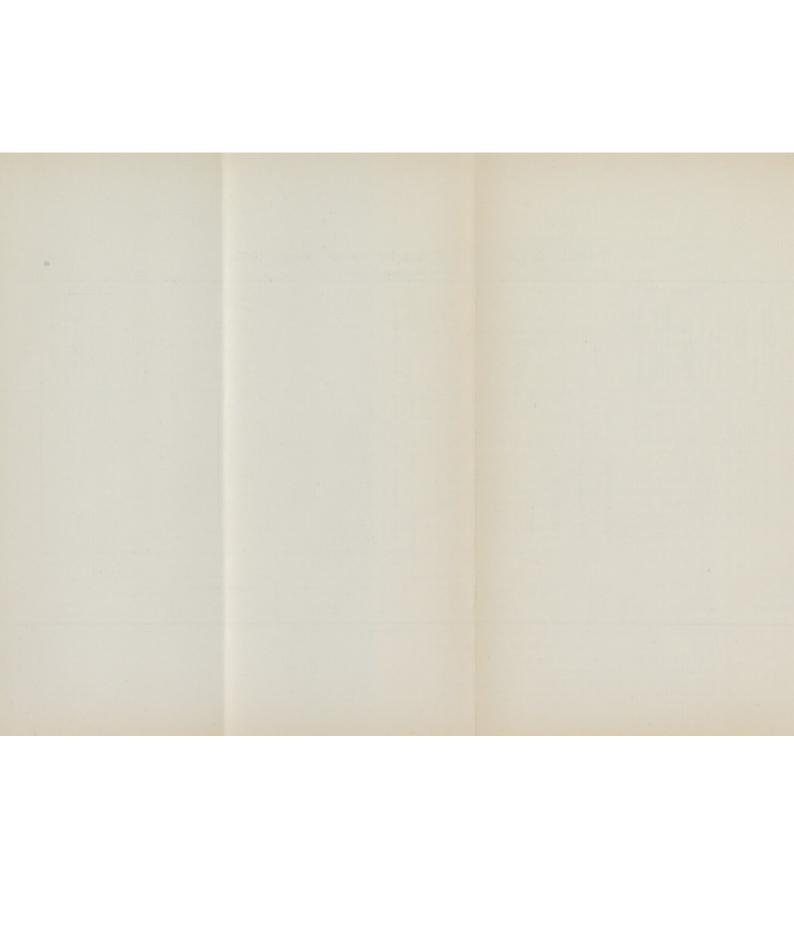
Since the attendances have been more closely looked after the number of cases of Itch has increased. I imagine the dirtier children have been brought into the schools. This disease is highly infectious and if not treated in its early stage

TABLE C.-Analysis of Scarlet Fever Cases, 1905.

Italics indicate Duplicate Returns.

	_		8	ECONDA	RY CASE	8.																			RETUR	n Cases.		
Date when reported to Sanitary Committee.	Number of cases reported at each Committee.	Cases sent to Hospital.	Notified at some time as first case,	Cases giving rise to secondary cases,	Secondary cases occurring during treatment of primary case in home.	Notified after removal of first case to Hospital.		Total number of days under treatment of each case Total number of days under treatment of each case notified and treated at home. Number of days under treatment of each single or solitary case. Number of days under treatment of cases sent to wadden theopital. *remaining in Hospital. Total number of days under treatment of each single or solitary case. *Tremaining in Hospital. Total number of days under treatment of each single or solitary case. *Tremaining in Hospital.						l. ital.	Deaths in Hos- pital,	Deaths when treated at home.	144	In Home after original case declared well.	Incomplete Returns.	Still under treatment.								
Jan. 16 Feb. 2	10 2 1	1	3	1	2		37	47 47 37	47	47	41	43	46	2 1 1	46 37 44	50			43		***					ï	1	
Mar. 2 ,, 16 Apl. 6 May 5 18	1 1 1 1 1 1	1 1 	1	1	1		24 25	24 22	***					1 1 1	25				67 42 								1+	
June 1 , 15 July 6 , 17 Sept. 7 21 Oct. 9	2 3 2 5 4 2	ï	-		1		45 45 27 47 48	66 36 44 52 43 42 42 44	48					2 2 3 3	45 43 27 47 44	36 52 43 48	42		62 81						***		1 1	
Nov. 13 Dec. 8 ,, 21	4 7 1	3	1				42	43 43 42 47	46 45 					2 4 1	37 42 54	46 42	47	45	18	34*	29*							2
	52	8	6	2	5									26												1	5	2
Incomplete r								1	hays unde	r treatm		case:			Da	per	r treatm case:	ent	Da	ys under per c	19880	ent	Sent (to hospit	al, Wad	don		8

† Doubtful case.



is often very troublesome. The nurse would recognise these cases in children at school and they could be excluded before they had spread the disease to cleaner children.

DEFECTIVE CHILDREN.

The physically defective children found on inspection of the schools were thirty-two. Twenty of these are now being taught at the Guild House School in Church Road by a specially qualified teacher. The room has been made light and bright by the insertion of two large windows at the side. Special desks, hammock chairs, and reclining chairs have been provided, and the class is making good progress.

The mentally defective children number thirty-three, and separate class rooms will soon be ready for some of these cases. At present some are at home and some are in the general schools which is neither good for them nor the other scholars.

Epileptic children are few in number and can be best treated in special institutions.

The consumptive children are unprovided for and are kept at home. A special open-air school is much needed for the ten known bad cases and possibly for certain others at present in the general schools.

One hundred and twenty-one children were found to have grossly defective vision. These children were unable to read the blackboard clearly, or read from ordinary books, or suffered from considerable degrees of squint. Unless supplied with proper glasses these children can only benefit by a small part of the education provided for them. Probably 40 per cent. of the cost is wasted upon them. I think it would be possible to find a surgeon occulist who would undertake the examination of the eyes of the children, at a nominal charge if a properly fitted room and apparatus were provided for his use. The experience gained would lead to more lucrative work and there must be many young surgeons who would be glad to accept such an appointment.

In most cases the parents could purchase glasses themselves, and for those who are too poor, I feel sure it is only necessary to mention the want and a charitable society would be formed to assist those who had not the means to provide glasses, which in some cases would cost a considerable amount.

VACCINATION AND SMALL POX.

No case of Small Pox has occurred this year. The vaccination is well carried out. It may be advisable to refer to the recent report of the Local Government Board on Hospitals in Germany for the isolation of Small Pox. From this article, it will be seen that so efficient is compulsory vaccination and re-vaccination in Germany, that it is possible "to dispense with separate Small-Pox Hospitals altogether. It is not necessary there to provide for Small-Pox a separate site nor separate administration. Germany is, in this way, freed from great expense, not to speak of the suffering and inconvenience which fall upon the English nation."

Death from Small-Pox in Germany, and England and Wales:

Country and Date of Census.	Pop. *	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	Total in Years.
Germany (1900)	56,367,178	49	108	157	88	27	10	5	15	28	49	56	15	607
England and Wales (1901)	32,526,075	49	431	1457	820	223	541	25	153	174	85	242	2461	6761

Most of these cases in Germany were in the persons of foreigners; Russians, Austrians, and Italians employed as navvies; and most of the outbreaks were near the Russian or Austrian frontiers.

Small Pox cases in Germany are in most cases removed to a pavilion in the grounds of the General Hospital of the town.

EPIDEMIC ENTERITIS.

Only twelve deaths from this disease this summer. There were no long periods of drought this year, the rain falling at frequent intervals and not in large amounts at a time. Such climatic conditions seem unfavourable to the spread of this disease.

TABLE D. Vaccination in the Borough.

YEAR AND MONTH.	Total Births.	Deaths of Children bafore Vaccination age.	Total Births available for Vaccination.	Postponements.	Insusceptible.	Total successful Vaccinations.	Percentage of Vaccinations to Births including postponements & insusceptible	Removals.	Exemptions.	Summoned.	Unaccounted for.	Percentage of Births Unvaccinated remain- ing in Borough.
May, 1898, TO April, 1899	922	100	822	6	3	702	86.4	98	+19	7	5	3.7
MAY, 1899, TO APRIL, 1900	990	120	870	9	5	706	82.7	116	†24	6	4	3.9
May, 1900, TO April, 1901	966	74	892	22	2	774	89.4	48	+39	1	4	4.9
MAY, 1901, TO APRIL, 1902	838	71	787	28	2	706	89.7	37	+47	16	2	8.2
May, 1902, TO April, 1903	948	116	832	18	1	740	88.9	62	23	4	3	3.1
May, 1902, ro April, 1904	1054	105	949	8	4	852	90.0	54	27		4	3.4
1904 May	70	8	62		1	56	91.9	4	1			9.3
June	70	10	60	1		54	91.6	4	1			10.0
JULY	81	6	75	3	1	66	93.3	4	1			12.0
August	89	14	75	919	1	67	90.6	2	5			10.6
SEPTEMBER	92	8	84			82	97.5	1	1			2.3
OCTOBER	61	1	60		1	55	93 3	1	3			8.3
November	78	7	66	1		59	90.9	4	2			10.6
DECEMBER	73	10	63			60	95.3	2	1			4.5
1905. JANUARY	76	8	68			61	89-6	3	3		1	10.2
FEBRUARY	77	3	74			71	95.9	1	1		1	4.0
MARCH	99	4	95	1		89	94.7	1	4			7.0
APRIL	79	2	77	1	1	70	93.5	4			1	9.0
	940	81	859	7	5	790	93.3	31	23		3	8'0

As nearly all "Postponements" are finally vaccinated, they are reckoned amongst the vaccinated.

⁺ In several cases when Exemption Certificates have been granted the child has shortly afterwards died. The true cause of death "after Vaccination" in the families of conscientious objectors may possibly be inherited constitutional deficiencies, and not the vaccination.

RAINFALL AND EPIDEMIC ENTERITIS.

YEAR.	Days on which rain fell during August.	Rainfall in inches.	No. of Deaths, in August.	REMARKS.
1899	6	.74	44	
1904	10	1.96	32	
1901	11	2.1	22	Rain only at end of the month half on one day
1900	11	3.61	4	Rain distributed throughout
1905	16	2.86	*5	Rain distributed throughout the month.
1902	18	3.17	4	Rain distributed throughout
1903	19	4.09	1	the month. Rain distributed throughout the month.

Average Rainfall for August, 2.35 in. *One case came home ill from North of England.

PUBLIC HOUSE URINALS.

These have all been inspected. Those near the roadway with access for the public have all been fitted with properly flushing apparatus. There is urgent need for properly fitted Public Urinals near the Railway Station and near the Barracks.

TABLE E.

Factories, Workshops, Laundries, Workplaces & Homework

Including Inspections made by Sanitary Inspe		Instect	or of Nu	isa	nces.
Incinaing Inspections made by Suntary Inspe		Inspect	Numbe	-	
Premises.		Inspections.			Prosecu tions.
FACTORIES (including Factory Laundries)		7			
Workshops (including Workshop Laundrie	s)	91			Nil
Workplaces					
Homeworkers' Premises		5			
TOTAL		103			Nil
2.—DEFECTS FO	DUND.				
	Numi	ber of 1	Defects.		Number
Particulars.	Found.	Reme died.	The state of	M.	of Prosecu tions.
Nuisances under the Public Health Acts:					
Want of Cleanliness	5	5			
3.—OTHER MAT	TERS.				
Class.			Nı	ımb	oer.
Underground Bakehouses (S. 101):-					
In Use during 1903				4	
(in 1904				2	
Certificates granted in 1905				2	
In use at the end of 1904				2	
Homework:—		-	Nu	mb	er of
List of Outworkers (S. 107):-			Lists	O	utw'rk'r
Lists received			2		8
Addresses of forwarded to other A	uthorit	ies	Nil		
Outworkers (received from other	Authori	ties	3		
Workshops on the Register (S.131) at the	ENDOF	1904:			
Important classes of Bakehouses workshops, such as				32	2
workshop bake- houses, may be Workplaces where fo	od is pr	repared		19)
enumerated here (Workshops		•••		17	4
Total number of workshops on R	egister	***		22	25

ABSTRACT OF WORK OF THE MEDICAL OFFICER.

Visits of Enquiry in cases of Infectious Disease		106
" " " Workshops, etc.		118
" in regard to Insanitary Conditions		127
,, on behalf of the School Attendance Commit	tee	931
" of Inspection to Schools		30
" to Common Lodging Houses		2
" Inspection of Markets		39
", ", of Dairies		18
" to Plague and Small Pox Contacts		9
Visits of Enquiry to Places outside District		8
Consultations with Medical Practitioners, &c		37
Other Visits		52
Visits to Midwives		47
m , 1 TT 1		1 504
Total Visits	,	1,524
. Average annual visits for last ten years—865.		
Complaints of Bad Food		3
", of Overcrowding		4
Letters, etc., written		79
Notices served, Reports, etc		12
Samples of Effluent Analysed		46
" of Drinking Water Analysed		4

RAINFALL RECORDS FOR THE DISTRICT.

MAINFALL SINCE ISI IANUARI, IU	RAINFALL SI	NCE]	IST I	ANUARY.	1900.
--------------------------------	-------------	-------	-------	---------	-------

	1900.	1901.	1902.	1903.	1904.	1905.
		Y 1	Y 1	Toolson	Yeahan	Total
Tonnorm	Inches. 2.84	Inches. 1.08	Inches.	Inches.	Inches.	Inches.
January	3.30	-82	.73	1.12	2.41	.80
February March	1.07	2.24	1.69	2.57	1.39	4.03
	.80	2.17	.64	1.69	1.03	1.68
April May	1.03	.44	2.53	2.07	2.16	1.03
7	3.49	1.04	3.79	6 37	.8	4.84
July	1.25	2.14	1.56	4.48	1.5	1.07
August	2.85	1.74	2.70	4.30	1.59	2.85
September	.73	1.75	2.57	3.21	1.5	1.67
October	1.85	1.78	1.46	5.02	1.54	1.36
November	2.02	.43	1.61	2.04	1.56	3.39
December	2.36	3.24	1.49	1.51	1.97	•60
m	00 50	10.05		00.00	20.10	00.00
Total	22.59	18.87	21.55	36.82	20.16	23.93

^{*} County Hall. † West Molesey. ‡ Kingston Sewage Works.

In the records for the immediate neighbourhood, there are considerable differences between West Molesey, Surbiton, and Kingston (Sewage Works), amounting to over an inch in a year.

It will be seen that the Report shows a steady, if slow, improvement.

H. BEALE COLLINS.

INQUESTS DURING 1905.

Date	1.		Description.	Age.	Sex.		Cause of Death	Verdict.
Jan.	13		Son of Carpenter	51 mths	M	-0.5	Improper Feeding	
,,	17		Son of					
	00		**************************************				Improper Feeding .	
			Butler	71	М.	•••	Exposure to cold	
				4 days	Μ.		Overlaying in bed with parents	
,	31		Son of Housekeeper	3½ mths	M.		Overlaying in bed with parents	1
			Company Director	48	M.		Drowning	
"	31		Widow of Labourer	94	F.		Senile Decay	
Feb.	22		Labourer	29	M.		Rupture of Aneurism	
	23		Son of Labourer	6 mths	М.		Overlaying in bed with parents	1
,,	23		Widow	68	F.		Heart Disease	
April	11		Daughter of Labourer		F.		Double Paeumonia	
,,	11	•••	Wife of Cabman	38	F.		Chronic Gastritis	
"	28		Gardener	54	M.		Acute Alcoholism	
May	2		Porter	39	М.		Pneumonia	
				7 mths	M.		Broncho-Pneumonia .	
"	23		Wife of Labourer	32	F.		Gastro-enteritis from Irri tant Poison	
June	15		Wife of	00	E			A: 31
	27						Concussion of Brain Fracture of Ribs and	
							Sternum	. Accidental
*					M.	•••	Drowning	
**	29	***	Daughter of Coachman	4 mths	F.		Pleurisy	
,, 5	29		Machinist	79	F.		Heart Disease	
Aug.	22		Widow of	09	E		Frankura of Famus Caril	was diene
			Carpenter	00	r.		Fracture of Femur, Senil Decay	
"	31		Wife of Sergeant	30	F.		Septicæmia Puerperal	Accelerated by neglect

Date	e.	Description.	Age.	Sex.	Cause of death.	Verdict.
Sept.	7	Son of Servant	9 mths	М	Improper Feeding	
"	25	Gardener	54	M	Double Pneumonia	
"	25	Wife of Labourer	58	F	Heart Failure	
Oct.	5	Gardener	47	M	Heart Disease	
"		Widow of Tir PlateWorker		F	Heart Disease	
,,	19	Labourer	36	M	Heart Disease	
,,	25	Child	4 wks	F	Malnutrition	
**	25	. Gardener	60	М	Cerebral Hæmorrhage	Natural
Nov.	14	Son of Stoker	6 mths	м	Overlaying in bed w	vith
"	6	Son of Farrier	3	м	Burns and Pneumonia	a
**	9	Daughter of Carpenter	2 mths	F	Broncho-Pneumonia	
,,	9	Daughter of Labourer	6 wks	F	Malnutrition	
"	30	Wife of Brick Layer	37	F	Alcoholic Neuritis	

SANITARY INSPECTOR'S REPORT.

ABSTRACT OF NOTICES FOR THE YEAR 1905.

Choked and Defective drains			220
New drainage to houses			18
Defective closets and syphons			25
Defective soil pipes and ventilators			24
Defective water apparatus to closets			59
To lay on water supply to closets			10
To provide separate cisterns for flushing close	ts		(
Foul drinking water cisterns			56
To cleanse and limewash houses			4(
To cleanse and disinfect houses			
To cleanse urinals adjoining the public roads			58
To repair and alter urinals adjoining the publi	ic road	ls	4
Inspecting urinals adjoining the public roads			920
Dilapidated houses			12
Dilapidated manure and ash pits			(
Accumulation of manure, offal, etc			180
Pig keeping (a nuisance)			2
Fowl keeping (a nuisance)			8
Overcrowding of houses			4
CANAL BOATS ACT, &c.			
Canal Boats and Barges inspected			65
Offences in Contravention of Canal Boats Acts	S		11
Notification of Infectious Disease	s Acr	rs.	
Visits to Infectious Diseases			220
Notices served to Householders, etc	•••	***	90
Notices served to School Attendance Officer		***	80
Notices served to Schools			150
Notices served to Librarian			180
Disinfecting houses after Infectious Diseases		***	80
Testing drains after Infectious Diseases			

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

The Registered Lodging Houses have been constantly visited, and have been kept clean and satisfactory.

PETROLEUM ACTS.

Premises and tanks under this Act have been kept in a satisfactory condition, and have afforded no cause for complaint.

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 have been condemned:—

119 stone, 3 lbs. of Beef.

2 boxes of Cod Fish.

1 barrel of Conger Eels.

2 boxes of Haddock.

2 boxes of Skate.

8 boxes of Tomatoes.

2 pads of Watercress.

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

Sanitary Inspector.

January, 1906.

TABLE 1. Births and Deaths Returns for Whole District.

Year.		BIR	THS.		SUNDER	DEATHS						AT ALL	
		221.72101		ONE YEA	R OF AGE.	AGES. TOTAL.			Deaths of	Deaths	AGES.	NETT.	
	Population estimated to Middle of each Year.	Number.	Rate. *	Number.	Rate per 1000 Births registered	Number.	Rate. *	in Public Institu- tions.†	Non- residents registered in District.	of residents registered beyond District	Number.	Rate. *	
1895 1896 1897 1898 1899 1900 1901 1902 1903 1904	30,050 31,089 32,516 34,558 35,970 36,311 37,741	954 942 945 960 979 988 880 940 1,030 973	31 '7 30 '2 29 '06 28 '2 27 '09 26 '9 25 '7 26 '1 31 '09 26 '2	155 119 143 147 137 110 111 113 116	162·4 126·3 151·4 153·1 139·9 111·3 125 129·7 112·6 154	540 519 585 554 612 596 552 624 602 645	17'9 16'6 17'9 16'2 17'1 16'2 15'9 17'06 16'6	58 50 59 69 82 78 150 206 208 242	50 49 88 70 94 81 76 105 119	10 24 9 8 15 17 13 15	490 470 497 484 518 515 468 511 492 516	16·3 15·1 15·2 14·2 15·3 14·06 13·5 14·2 13·5 14·2	
Averages for years 1895-1904	34,319	958	28.22	130	136.2	580	16.9	120	86	15	496	14.4	
1905	38,670	1,015	26.2	91	89	540	13.9	159	88	26	452	11.6	

^{*} Rates calculated per 1000 of estimated population.

Area of District in Acres (exclusive of area covered by water) 1,114 Total population at all ages (at Census of 1901) ... 34.375 Institutions within District receiving sick and infirm persons

from outside District :-Kingston Victoria Hospital. Workhouse Infirmary. † Increase due to enlargement of Workhouse Infirmary.

Number of inhabited houses (at Census of 1901) ... 6,507 Average number of persons per house "... Institutions outside District receiving sick and infirm

persons from the District:—

Brookwood Asylum. Richmond Hospital. Surbiton
Hospital. Croydon Isolation Hospital.

5'2

TABLE IV.

Causes of, and Ages at, Death during Year 1905.

	DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING IN OR BEYOND THE DISTRICT. Deaths in Institu													
Causes of Death.	All Ages.	Under 1.	1-5.	5-15.	15-25.	25-35.	35-45.	45-55.	55-65.	65-75.	75-85.	Over 85.	Belonging to District.	Non " Residents " in Public Institutions in the District.
Small-pox Measles Scarlet Fever Whooping Cough	15 1 2	9	6 1 2										1	
Diphtheria & Mem- branous Croup	3		1	2										
Croup														
Typhus Enteric Other continued														
Epidemic Influenza Cholera	4				1			1	2					1
Plague Diarrhœa	12											**	1	6
Enteritis Puerperal Fever Erysipelas	2 3				::	i	1				1	2	1	
Other Septic Diseases	3			1			1	1					1	2
Phthisis (Pulmonary Tuberculosis)	44				9	13	6	5	7	3	1		14	3
Other Tubercular Diseases Cancer, Malignant	11	1	6			2	1		1				2	2
Disease Bronchitis Pneumonia	31 42 18 5	7 3	2		1 2	2	2 3 3	6 1 1		6 14 1	5 5 2	1	5	11 2 3
Other Diseases of Respiratory										-	0			
Organs Alcoholism	14		4		•••	1	3	7		1	2	1	3	3
Cirrhosis of Liver f Venereal Diseases Premature Birth	20													4
Diseases & Accidents of Parturition	14	13			1							.:	3	1
Heart Diseases Accidents Drowning	53 10 2		2	2	i 1	4	2	11 1 1	9	12	9	1	20 1 1	14
Pemphigus All Other Causes	1 127	1 12		2	4	3	4	14	26	26	24	8	28	31
ALL CAUSES	452	91	30		16		30	49	54	64	49	16	89	88

TABLE V.

INFANTILE MORTALITY DURING THE YEAR 1905.

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

			114		car		100	-									
Cause of Death.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under One Year
All Causes:— Certified	16	5	10	6	37	6	8		3	-	-	3		1	7	2	81
TI	2	1					0	4		5	7	3	4	. 1	1	2	
Uncertified	2			1	3	-2	***	1	1	2			1	***			10
Common Infectious												-1					
Diseases :—														- 5			
Pemphigus		1			1		-	390		3000	25.53	0.33		333			1
Chicken-pox							***										
Measles											1	1	4	1		2	9
Scarlet Fever																	
Diphtheria: Croup																	
Whooping Cough																	
Diarrhœal Diseases :							1000									HOL	
Diarrhœa, all forms																	
Enteritis Epidemic		111		177	100		2.4								49		
(not Tuberculous)						1	3	2	1		3		1		1		12
Gastritis, Gastroin-																	
testinal Catarrh																	
Wasting Diseases:	_														-		
Premature Birth	7	2	4	3			1	1				***	***		***		18
Congenital Defects Injury at Birth	1	***	***	***	1	***				***	***	***	***		***		1
Want of Breast-	1		***	1	2	•••	***			***	***		***				2
milk			1			4					TE				000		4
Atrophy, Debility,	***		***	***	•••	7	***	***	***		***						1
Marasmus	7	2	4		13	2									536	- 33	15
Tuberculous Diseases:	'	2	#	***	19	2	***	***	***	***	***	***	***		***	***	10
Tuberculous Me-		13	1-4			1	2				BE				Link		
ningitis					100			- 3			9		Upper S				
Tuberculous Perit-		***	***	***			***			***	***	10			101		
onitis : Tabes												1	03		91	22	
Mesenterica									*								
Other Tuberculous															Dist	969	
Diseases												1					1
Erysipelas										1							1
Syphilis										***							
Improper Feeding				1	1	1				1							3
Meningitis	0	1	-		4.0			-					N EST	12331	1379		
(not Tuberculous)			***														
Convulsions				1	1				1								2
Bronchitis				1	1	1	2	1	1	1	1	I					9
Laryngitis	**		***	***													HELL
Pneumonia	1		2		3		1			1	1						6
Suffocation,	-				4			-		-						-	
Other Causes	1	***	***	***	1			1	***	1	1						4
Other Causes	***	***	***	***	***	2	1	•••	1	2	***		***				6
				-												-	
		-			1075	2.0					-						
	18	5	10	7	40	8	8	5	4	7	7	3	5	1	1	2	91
						11											
																-	