

Annual report of the Medical Officer of Health for the year 1904 / by J. H. Crocker.

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BOROUGH OF RICHMOND
(SURREY).

ANNUAL REPORT
OF THE
MEDICAL OFFICER OF HEALTH
FOR THE YEAR 1904,

BY

J. H. CROCKER, M.D.,

B.CH., D.P.H., M.R.C.S., &C.,


*Medical Officer of Health, Borough of Richmond,
Medical Officer to the Education Committee, Richmond,*

AND

Visiting Physician, Mogden Isolation Hospital.

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TOWN HALL,

RICHMOND, SURREY,

February 3rd, 1905.

To the Chairman and Members of the Health Committee.

GENTLEMEN,

I beg to present a Report upon the Health and Sanitary Condition of the Borough for the year 1904.

It is with regret that I have to record the death of your late Sanitary Inspector, Mr. Parsons, whose unfailing courtesy and sound knowledge of his duties were ever of an advantage to the Health Department. The somewhat sudden death of the late Mr. Taylor, who was closely associated with our department in connection with the Elementary Schools, was also much regretted. Both officers will be missed, particularly in the Health Department

Believe me, Gentlemen,

Your obedient Servant,

J. H. CROCKER,

Medical Officer of Health.

HEALTH COMMITTEE, 1904.

HIS WORSHIP THE MAYOR.

NORTH WARD.

Councillor Banks

„ A. J. WARD

SOUTH WARD.

Alderman GASCOYNE

Councillor CAPEL SMITH

„ HEASLER

„ WADD, M.B., (Chairman)

EAST WARD.

Councillor COOK

„ PIERREPONT

„ TAYLOR

„ THOMPSON

WEST WARD.

Councillor BILLET

„ McDougall

KEW WARD.

Councillor Beauchamp

„ Daykin

Meetings every Second Friday at 6 o'clock p.m.

JOINT HOSPITAL COMMITTEE. 1904,

Members from the Richmond Corporation.

Councillor ALABASTER (Vice-Chairman) Councillor GIBB.

„ BANKS

„ WADD, M.B.

„ BROOKING

„ A. J. WARD

Meetings once a month at 4-45 p.m.

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Statistical Summary.

STATISTICAL SUMMARY.

BOROUGH OF RICHMOND, 1904.

POPULATION, estimated to the middle of the year	...	33,320
BIRTHS. Males, 325 ; Females, 296 ...	...	621
ANNUAL RATE OF BIRTHS per 1,000 of Population	...	18·6
DEATHS ...	...	400
ANNUAL RATE OF DEATHS per 1000 of Population	...	12·0
ZYMOTIC DEATH RATE ...	...	1·5
EXCESS OF REGISTERED BIRTHS OVER DEATHS ...	...	221
INFANTILE MORTALITY per 1,000 Births	...	133
AREA. The Total Area of the Borough is	...	2534 acres
DENSITY. The Mean Density of the Borough is equal	to 13 persons per acre	

1904.

Annual Birth-rates, Death-rates, and Rates from the Seven Chief Epidemic Diseases.

	Annual Rates per 1,000 Living.			Infant Mortality. Annual Death-rate of Infants under 1 Year per 1,000 Births.
	Births.	Deaths from all Causes.	Deaths from Seven Chief Epidemic Diseases.	
England and Wales	27·9	16·2	1·94	146
Rural England & Wales	26·8	15·3	1·28	125
76 great towns	29·1	17·2	2·49	160
142 smaller towns (including Richmond)	27·5	15·6	2·02	154
RICHMOND	18·6	12·0	1·5	133

SECTION I.**Vital Statistics.**

SECTION I.

VITAL STATISTICS.

The following are particulars of the census **Population.** of 1901, as applied to the Borough of Richmond, compared with those of 1891 :—

	Year.	Population.	Inhabited Houses.
Borough ...	1901	31677	6184
Do. ...	1891	26875	4939
Increase ...	...	4802	1245

For statistical purposes it is necessary to estimate the population at the middle of each year ; the usual mode of arriving at these figures is to assume that the annual increase is at the same rate as that which occurred between the two last census, due allowance being made for the increase of population during that decade. The Registrar General in his quarterly reports has estimated the population of the Borough of Richmond for 1904 to be 33,320.

Divided into Wards the figures are as follows:—

Ward.	Population.		
		1901.	1904.
	Census.	Estimated at the Middle of the year.	Estimated at the middle of the year.
North	9073	9139	9803
South	6038	6044	6134
East	9140	9176	9722
West	4727	4727	4775
Kew	2699	2714	2886
Total... ..	31,677	31,800	33,320

Marriages. In the course of the year 262 marriages took place within the Borough, as compared with 312 for 1903.

By the Established Church	...	...	169
At other places of Public Worship	...	...	23
At the offices of the Registrar	...	...	70
Total	...	...	262

This gives a marriage rate of 15·7 per 1,000 inhabitants in the Borough during the year 1904 as compared with 19 for 1903 and 15·3 for the year 1902.

Births. The number of births registered during the year 1904 was 621, as compared with 664, the average for the preceding ten years. Of these 325 were males and 296 were females. The birth rate for the year was **18·6** per 1,000 of the population. The average for the Borough during the preceding ten years was 21·6. There were 22 illegitimate births during 1904, 12 of these occurring in the Union Workhouse, 2 in the North Ward, 6 in the East, and 2 in the West Ward. The birth rate varied in the different Wards, being 24·8 in the North, 10·4 in the South, 21·3 in the East, 13·8 in the West, and 13·8 in the Kew Ward. The birth rate for England and Wales during 1904 was 27·9, being lower than the rate in any year on record; for the 76 great towns on the Registrar General's list it was 29·1, and for the 142 smaller towns it was 27·5 per 1,000 of the population.

Deaths. The total number of deaths registered in the Borough during 1904 was 443; of these, 104 died in the Union Workhouse and Royal Hospital, 53 of whom belonged to outside districts. Three patients from Richmond died at Mogden Isolation Hospital, 6 at Brookwood Asylum, and one at the Surrey Royal Hospital, Guildford. Correcting for the above, results in a total of 400 deaths for the Borough, which gives an annual rate of **12** per 1,000 of the population living.

The mean annual death rate of the Borough for the preceding ten years was 13·7. The death rate for England and Wales in 1904 was 16·2, the 76 great towns 17·2, and Rural England and Wales 15·3. The death rate varied in the different Wards. Owing to the returns from the Registrar not giving the previous addresses of the persons dying in the Union Workhouse, 38 deaths at that Institution are placed in the South Ward, but in all probability none, or very few, actually belong to that Ward. The death rate for the North Ward was 10·9, South Ward 14·5, or without the Workhouse deaths 8·3, East Ward, 12, West Ward 10·2, and Kew Ward 13·1 per 1,000 of the population.

Births and Deaths during 1904 in the various Wards,

Wards.	Total Births.	Birth Rate per 1000 living	Total Deaths.	Death Rate per 1000 living.
North ...	243	24·8	107	10·9
South ...	64	10·4	89	8·3†
East ...	208	21·3	117	12·0
West ...	66	13·8	49	10·2
Kew ...	40	13·8	38	13·1
Total for Borough ...	621	18·6	400	12·0

† After deducting 38 in the Union Workhouse.

Chief Epidemic Diseases, Death Rate. The number of deaths due to the "seven principal Zymotic Diseases" * usually classified under this heading was 51. This gives a zymotic death rate of 1·5 per 1,000 persons living, as compared with ·85 for 1903. The increased rate is due to the greater number of deaths from Measles, Whooping Cough and Diarrhœa. The zymotic death rate of England and Wales for 1904 was 1·94, that for the 76 great towns 2·49, and Rural England and Wales 1·28

Scarlet Fever.—1 death.

Measles.—13 deaths, all but one below five years of age.

Diphtheria and Croup.—3 deaths, two below five years of age.

Whooping Cough.—11 deaths, ten below five years of age, the other being registered as five years of age.

Diarrhœa.—23 deaths, 19 of these being below one year of age.

* Small-pox, measles, scarlet fever, diphtheria, whooping cough, fever, (typhus, enteric, and continued) and diarrhœa.

Mortality in age Groups. As will be seen by the Table of Causes of Death, at the end of this Section, there were 113 deaths above 65 years of age, and 83 below one year of age.

Infantile Mortality. The total number of deaths under one year was 83; this is at the rate of 133 per 1,000 births. The average for the preceding 10 years was 131.

Tuberculosis. The total number of deaths attributed to this disease was 61, being 15 per cent. of the total deaths as compared with 11 per cent. for 1903, and 10 per cent. for 1902. This is a little over a rate of 1·8 per 1,000 of the population, as compared with 1·6 for 1903, 1·3 for 1902, and 1 for 1901.

Respiratory Diseases. 55 deaths were registered as due to diseases of the chest other than phthisis. This gives a mortality of 1·6 per 1,000 of the population as against 1·5 for 1903, 2 for 1902 and 2·5 for 1901.

Deaths in Public Institutions.

	Parishioners.	Non-Parishioners.	Total.
In the Richmond Hospital	13	31	44
„ Union Workhouse ...	38	22	60
„ Brookwood Asylum...	6	—	6
„ Mogden Hospital ...	3	—	3
„ Royal Surrey Hospital	1	—	1
„ Guildford ...	...	...	...

Inquests. There were 44 inquests held in the Borough during the year, viz., Richmond 35, Petersham 2 and Kew 7.

**Coroner's Inquests held during the Year 1904
in the Kingston District of Surrey.**

Kingston	...	...	...	...	59
Ham	...	...	...	...	3
New Malden	...	...	...	...	4
Old Malden	...	...	...	...	1

Surbiton	...	...	...	...	16
Wimbledon	...	...	...	...	40
Merton	...	...	...	...	4
Richmond	...	...	...	...	35
Petersham	...	...	...	...	2
Kew	...	...	...	...	7
Mortlake	...	...	...	...	13
Barnes	...	...	...	...	30
Long Ditton	...	...	...	...	2
Thames Ditton	...	...	...	...	10
Total (153 males and 73 females)					226

I.	II.	III.
Institutions within the District receiving sick & infirm persons from outside the District.	Institutions outside the District receiving sick and infirm persons from the District.	Other Institutions, the deaths in which have been distributed among the several localities in the District.
Union Workhouse.	Mogden Isolation Hospital, Middlesex.	Royal Surrey Hospital, Guildford.
Royal Hospital.	Dockwell Small-pox Hospital, Middlesex.	
	Brookwood Asylum.	



VITAL STATISTICS OF WHOLE DISTRICT DURING 1904 AND PREVIOUS YEARS

BOROUGH OF RICHMOND (SURREY).

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.					Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	NETT DEATHS AT ALL AGES BELONGING TO THE DISTRICT.		
		Number.	Rate.*	Under 1 year of age		At all Ages.					TOTAL DEATHS IN PUBLIC INSTITUTIONS IN THE DISTRICT.	Number	Rate.*
				Number.	Rate per 1,000 Births registered.	Number.	Rate.*						
								5						6	7	8
1	2	3	4	5	6	7	8	9	10	11	12	13	
1894	28500	651	22.8	78	119	411	14.0	90	49	..	352	12.3	
1895	28920	618	21.3	75	121	432	15.0	75	29	9	412	14.2	
1896	29400	665	22.6	98	147	414	14.0	72	40	10	384	13.2	
1897	29880	704	23.5	98	139	432	14.4	115	63	6	369	12.3	
1898	30360	663	21.8	113	170	493	16.2	107	56	5	443	14.5	
1899	30840	691	22.4	107	154	541	17.5	110	48	8	501	16.2	
1900	31320	617	19.7	89	144	518	16.5	117	53	10	475	15.0	
1901	31800	707	22.2	78	110	459	14.4	93	40	8	427	13.4	
1902	32300	641	19.8	59	92	458	14.1	114	53	21	426	13.2	
1903	32808	683	20.8	76	111	460	14.0	106	45	13	428	13.0	
Averages for years 1894-1903.	30610	664	21.6	87	131	461	15	100	47	10	421	13.7	
1904	33320	621	18.6	83	133	443	13.3	104	53	10	400	12.0	

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

VITAL STATISTICS OF SEPARATE LOCALITIES IN 1904 AND PREVIOUS YEARS.

BOROUGH OF RICHMOND (SURREY).

Names of Localities.	BOROUGH.				NORTH WARD.				SOUTH WARD.				EAST WARD.				WEST WARD.				KEW WARD.			
	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
Year.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.
1900 ..	31,320	617	475	89	122	32			101	9			129	29			4,727	97	75	13	2,714	42	43	7
1901 ..	31,800	707	427	78	110	28			90	6			107	28			4,735	81	60	8	2,774	51	42	5
1902 ..	32,300	641	426	59	119	19			98	5			107	22			4,765	70	54	8	2,854	49	37	7
1903 ..	32,808	683	428	76	119	29			111	8			107	24			4,775	66	49	11	2,886	40	38	6
1904 ..	33,320	621	400	86	107	33			89	4			117	29										

CAUSES OF, AND AGES AT, DEATH DURING YEAR 1904
BOROUGH OF RICHMOND (SURREY).

CAUSES OF DEATH.	DEATHS IN OR BELONGING TO WHOLE DISTRICT AT SUBJOINED AGES.						DEATHS IN OR BELONGING TO WARDS (AT ALL AGES).					TOTAL DEATHS IN PUBLIC INSTITUTIONS IN THE DISTRICT.	
	All ages. 1 year.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	North	South	East	West		Kew.
Measles ..	13	3	9	1	..	..	..	2	1	8	2	..	..
Scarlet Fever ..	1	..	1	..	..	..	..	1	..	..	..	..	..
Whooping-cough ..	11	5	5	1	..	..	..	7	..	4	..	..	1
Diphtheria and membranous croup ..	3	..	2	1	..	..	..	..	..	3	..	..	..
Enteric Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	1
Epidemic influenza ..	2	..	..	..	..	1	1	..	..	..	..	2	..
Diarrhoea..	23	19	3	..	..	..	1	8	1	10	3	1	2
Enteritis ..	..	..	..	..	..	..	..	..	..	..	..	..	1
Puerperal Fever ..	1	..	..	..	1	..	..	..	1	..	..	..	1
Erysipelas ..	1	..	..	..	1	..	..	..	1	..	..	..	..
Other septic diseases ..	6	1	..	..	..	2	3	3	1	1	1	..	4
Phthisis (Pulmonary Tuberculosis)	44	..	1	3	6	31	3	9	14	11	5	5	15
Other tubercular diseases ..	17	2	9	3	..	3	..	4	..	3	4	6	5
Cancer, malignant disease ..	24	..	1	..	..	11	12	10	4	5	4	1	7
Bronchitis ..	25	4	3	..	..	5	13	5	6	9	5	..	6
Pneumonia ..	30	11	5	..	1	5	8	12	4	11	2	1	7
Alcoholism, Cirrhosis of liver ..	9	..	..	..	..	8	1	2	2	2	1	2	2
Premature birth ..	11	11	..	..	..	..	..	5	..	4	1	1	..
Diseases and accidents of parturition..	1	..	..	..	..	1	..	..	..	..	1	..	..
Heart diseases ..	38	1	..	3	..	16	18	9	12	10	4	3	9
Accidents..	11	1	..	1	1	5	3	3	4	3	..	1	6
Suicides ..	1	..	..	..	..	1	..	..	1	..	..	..	..
All other causes ..	128	25	3	2	3	45	50	27	37	33	16	15	37
All causes ..	400	83	42	15	13	134	113	107	89	117	49	38	104

SECTION II.**Infectious Diseases.**

SECTION II.

RECORDS OF INFECTIOUS DISEASES AND PRECAUTIONARY MEASURES ADOPTED.

NOTIFICATION OF INFECTIOUS DISEASES UNDER THE NOTIFICATION ACT OF 1889.

The total number of cases notified under the above Act for the year 1904 was 118. The number notified during the previous year was 195; for the year 1902 the number was 177, and for 1901 it was 131.

TABLE OF MONTHLY NOTIFICATIONS.

Month.	Totals		Diphtheria.		Erysipelas.	Scarlet Fever.	Enteric Fever.	Continued Fever.
January ...	21	...	9	...	3	8	1	...
February ...	13	...	2	...	1	7	3	...
March ...	7	...	3	...	...	4	...	...
April ...	16	...	1	...	3	12	...	...
May ...	9	...	1	...	5	3	...	...
June ...	6	...	...	...	2	3	1	...
July ...	2	...	2	...	...	...	...	...
August ...	9	...	2	...	1	5	...	1
September ...	7	...	...	...	2	5	...	...
October ...	17	...	1	...	2	13	1	...
November ...	4	...	...	...	1	2	1	...
December ...	7	...	...	...	...	6	...	1
Total ...	118	...	21	...	20	68	7	2

Two of the above cases of enteric fever were brought from Sunbury; these were both treated in the Royal Hospital.

CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1904.

Notifiable Disease	Cases Notified in whole district.						Total Cases Notified in each Ward.					No. of Cases removed to Hospital from each Ward.					
	At all Ages.	At Ages—Years.					North.	South.	East.	West.	Kew.	North.	South.	East.	West.	Kew.	
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.											65 and upwards.
Diphtheria ..	21	..	8	9	1	3	..	9	2	9	1	..	8	1	4	..	1
Erysipelas ..	20	..	..	..	1	15	4	6	1	4	3	6	..	..	..	..	1
Scarlet fever ..	68	..	16	39	7	6	..	31	9	16	9	3	22	..	14	4	1
Enteric fever ..	7	..	..	1	3	3	..	4	1	1	..	1	2	..	..	..	..
Puerperal fever	2	..	..	..	1	1	..	..	1	..	1	..	..	..	..	1	..
Totals ..	118	..	24	49	13	28	4	50	14	30	14	10	32	6	18	5	3

Small-pox Hospital—Dockwell, Middlesex } *Joint Hospital Committee.*
Isolation Hospital—Mogden, Middlesex }

Two of the above cases of Enteric Fever were treated in the Royal Hospital, Richmond

The Workhouse is situated in the South Ward.

NOTIFICATIONS OF INFECTIOUS DISEASES FROM 1894 TO 1904.

Disease.	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	Annual Average 1894-1903	1904
Small-pox..	6	1	..	..	..	..	..	2	11	1	2.1	..
Scarlet fever	246	202	92	112	93	148	78	52	92	119	123.4	68
Diphtheria & mem- branous croup	22	7	15	15	25	31	25	41	39	43	26.3	21
Enteric fever	10	15	6	15	8	10	21	12	17	13	12.7	7
Continued fever	..	..	..	6	8	6	4	4	..	1	2.9	..
Erysipelas	37	18	21	18	21	41	21	20	16	18	23.4	20
Puerperal fever	..	..	..	..	..	..	24 2	..	2	..	0.4	2
Total..	321	243	134	166	155	236	154	131	177	195	191	118

Notification of Infectious Disease by School Teachers. The arrangements made with the Managers of the Elementary Schools in 1901 for the notification by the School Teachers of any cases of Measles, Whooping Cough, Chicken Pox or Mumps, which they may be aware of amongst the absent scholars has been of much use during the year 1904.

The following is a summary of the result of the investigations of the various cases notified:—

	Measles.		Whooping Cough.		Chicken Pox.		Mumps.	
	1904	1903	1904	1903	1904	1903	1904	1903
Suffering from...	225	(16)	133	(8)	18	(38)	1	(0)
Other children not ill but kept at home owing to sickness in the house	242	(15)	85	(10)	12	(33)	1	(0)
Total ...	467	(31)	218	(18)	30	(71)	2	(0)
Number of houses in which the diseases occurred							241	
„ „ notified but infectious disease not present							102	
Total houses visited							343	

Schools	Number of Notifications (Houses).
Holy Trinity Schools, Princes Road	29
Holy Trinity Schools, Lower Mortlake Road...	27
National Parochial Schools	14
St. John's Schools	17
St. Luke's Schools	65
Russell British Schools	7
St. Elizabeth's Schools	5
Discovered by Sanitary Inspector and other sources	33
King's Schools, Kew	29
British Schools	15
	241
Houses notified but no disease present	102
Total	343

PREVALENCE AND DISTRIBUTION OF INFECTIOUS DISEASES.

Small-pox. No cases of this disease were notified during the year.

Diphtheria. During the year there were 21 cases of this disease notified as compared with 42 for the previous year. Nine of the cases were notified in January. In two instances 3 cases in one house occurred; all the others were one case per house. Three deaths occurred. Fourteen cases were removed to Mogden Hospital, being 66 per cent. of the notified cases.

The arrangement for storing anti-diphtheritic serum at the Royal Hospital continues to be very satisfactory.

Erysipelas. Twenty cases of this disease were notified during the year as compared with 18 for the previous year. One death was registered as due to this disease.

Scarlet Fever. Sixty-eight cases of this disease were notified during the year, as compared with 119 for the previous year. Thirty-one of these cases occurred during the first four months of the year. At the latter part of 1903 several cases were kept at home for treatment on account of the previous overcrowding at the Hospital, and these may account for the increase of attacks at the commencement of the year 1904.

One death occurred from this disease. Forty-six cases were removed to Mogden Hospital, being 67·6 per cent. of the cases notified.

Enteric Fever. Seven cases only of this disease were notified during the year, and two of those were brought to the Royal Hospital from outside districts. Thirteen cases were notified in 1903, and 17 in 1902. No deaths of residents were reported as due to this disease.

Measles. Two hundred and twenty-five cases of this disease were notified by the school teachers, as compared with 16 for the previous year, and 245 for 1902. Altogether there were 467 children kept from school on account of this disease, in addition to

those kept away by closing of schools. The first serious outbreak occurred in connection with the infant department of King's Schools, when we found, upon investigation, 29 different infected homes containing 60 children. The 29 cases all began to be ill between the 28th and 30th of May, evidently infection from a common source, and most probably an infectious scholar of the school. The infant department of this school was closed for three weeks from May 30th.

Nine other cases were notified from this school between the above date and July 11th.

In September several cases arose in connection with the infant department of St. Luke's Schools, altogether 65 cases were notified. The infant department of these schools was closed for three weeks, from Sept. 19th; after a week, the other departments of the school were closed for a fortnight. In October, many cases occurred amongst the scholars of the infant department of Holy Trinity Schools, followed by notifications from the infant departments of the other schools in the borough.

Owing to the closing of the infant department of King's Schools and the closing of St. Luke's Schools, many cases occurred which were not brought to our notice, consequently a greater number of cases occurred than are accounted for in the list given on a previous page. Thirteen deaths were registered as due to the disease, chiefly at the latter part of the year. Notwithstanding this, the number of deaths would probably be much greater but for the measures taken by the Health Department.

The following is a copy of the circular left by the Sanitary Inspector at the houses where measles was notified as occurring:—

Town Hall, Richmond.

Measles is again prevalent in this district.

There are more deaths every year from measles than from scarlet fever. This is due to the neglect of parents, in many cases, because of the mistaken idea that the disease is not dangerous.

Take the same care and precautions as you do with scarlet fever, and you may save your children. Measles is a Fever.

This disease begins like a cold in the head; this lasts four days before the rash comes out, and the case is "catching" during all this period, as well as some fortnight or more after the disappearance of the rash.

Isolate the patient. Keep off measles as long as you can, as 90 per cent. of the deaths occur below 5 years of age. The older the child is when measles is contracted the better is the prospect of living through it.

Bronchitis, pneumonia, and inflammation of the kidneys, even in very mild cases, follow on the disease if the patient is not kept in bed.

J. H. CROCKER, M.D.,

Medical Officer of Health.

Whooping Cough. One hundred and thirty-three cases of this disease were notified by the school teachers as compared with 8 for the previous year. Altogether 218 children were kept from school on account of this disease. From April cases arose throughout the remainder of the year chiefly in connection with the scholars of the infant departments of the schools.

The periods of notifications were as follows:—

April.	St. Luke's School, Infant Department,	17 cases
June.	Prince's Road „ „	38 „
July.	„ „	9 „
October.	{ British, St. John's Holy Trinity, St. Elizabeth's }	21 „
November.	„ „	35 „
		—
		120
Discovered by Medical Officer and Sanitary Inspector		13
		—
Total	... ..	133
		—

There were eleven deaths registered as due to this disease. Ten of these occurred below five years of age, and one was registered as five years of age.

The following is a copy of the circular left at every house visited by the Sanitary Inspector in connection with this disease:--

BOROUGH OF RICHMOND.

WHOOPING COUGH.

This disease is a serious one, especially if occurring in children under five years of age. The most common complication is bronchitis, but the severe coughing and straining during the illness may tear the lung tissue and thus set up inflammation.

Whooping cough is very infectious, but susceptibility to the disease is lessened as the child grows older.

In this district there are many more deaths from whooping cough than from scarlet fever. Nearly all the deaths occur below the age of 5 years. It follows, therefore, that *the older the child is when he contracts whooping cough the better chance he has of recovery.*

During the past thirteen years, in the Borough of Richmond, which includes Richmond, Kew, North Sheen and Petersham, there were 101 deaths due to whooping cough, whilst during the same period the number of deaths from scarlet fever was 23.

The incubation period of whooping cough is about a fortnight that is, after becoming infected the child is apparently quite well, as far as this disease is concerned, for that length of time. The onset begins with a short cough, like that of an ordinary cold, but, as a rule, there is no "whoop" until a fortnight after the commencement of this bronchitic cough; the child, however, may give the disease to others during this period. The infectious stage lasts at least six weeks from the commencement of the cough. The child is liable to impart infection to others after this period has elapsed unless the cough has disappeared.

The patient should be isolated during the whole period of the ailment. He should not be exposed to cold winds or draughts, but plenty of fresh air in the room will be beneficial.

The infection is given off by the breath of the patient and is also contained in what is coughed up, therefore, a handkerchief should not be used for wiping the mouth after coughing; soft paper is preferable. The paper should be burnt immediately after using.

Any material contaminated by the patient should be boiled in water for at least ten minutes. Plates, cups, spoons, or any other articles used by the patient should be thoroughly cleansed after using and should be kept entirely for the patient's use.

Any person not suffering from whooping cough may carry the disease from a sufferer to others, particularly if the patient has coughed on such person's clothing.

It is advisable to wear a cotton garment over the ordinary clothing whilst with the patient. This cotton garment should be removed, the face and hands washed and hair brushed before associating with the other inmates of the house.

If an infected child is taken into the street or any public place the party in charge of the child is liable to prosecution.

Any child known to have been exposed to the danger of whooping cough, who, after ten days or a fortnight, begins to cough—even if there is no whoop—should be kept away from others. On no account should a child be sent to day or Sunday school under such circumstances.

Upon termination of the illness the house and any articles liable to retain infection will be disinfected free of charge if word is sent to the Health Department, Town Hall.

The Medical Officer of Health will be obliged if persons will send information to him when they have any case of infectious disease in the house.

J. H. CROCKER, M.D.,

MEDICAL OFFICER OF HEALTH.

April, 1904.

Town Hall,

Richmond (Surrey).

Chicken Pox. Eighteen cases of this disease were notified by school teachers during the months from February to June. Seven cases were notified in connection with the Russell British Schools during March and 6 in connection with Holy Trinity Schools during June. Enquiries as to vaccination and isolation were made in every instance. Thirty children were kept from school on account of this ailment.

Mumps. Only one case of this affection was notified.

Diarrhœa. Twenty-three deaths were registered as due to diarrhœa, chiefly during the hot weather. Nineteen of the deaths were below one year of age. The number of deaths from this complaint in 1903 was 9. The following is a copy of a leaflet distributed in the borough during the hot weather :—

BOROUGH OF RICHMOND (SURREY).

PUBLIC HEALTH NOTICE—DIARRHŒA.

During the hot and dry weather Diarrhœa becomes very prevalent, the disease particularly affecting very young children. Most of the deaths from this ailment occur during August and September. The following suggestions and

PRECAUTIONS

are recommended :—

1. Boil all Cow's Milk immediately upon receiving it, and then keep in a cool place until consumed.

2. Meat, Fish, Fruit, &c., should be kept in a cool and ventilated place, away from contamination by dust, flies, &c. On no account should any unsound food be eaten.

3. Infant Feeding.

(a) *Nature of Food.*—A baby cannot digest starchy food, therefore do *not* give any bread "pobbies," corn flour, oatmeal, or any of the baby's foods which contain starch, until the child is over six months of age. Previous to this age, the child should have nothing

but mother's milk. If the baby has to be hand fed, then consult your doctor as to how to prepare cow's milk so as to render it suitable for the child. Cow's milk contains much more and a much firmer "curd" than mother's milk, and hence must be modified.

(b) *Quantity*.—Many babies have their stomachs deranged by over-feeding. Do not mix at one time more than will quarter fill the feeding bottle.

(c) *Cleanliness*.—A glass feeding bottle with teat only is the best. Do not use a bottle with a tube. Wash the bottle and teat thoroughly in running water each time after using.

4. Insanitary Surroundings. Abundance of fresh air and cleanliness of rooms are essential to health. Flush the yards, gullies, and water-closets frequently with plenty of water, this is much better than sprinkling with "disinfectants." It is advisable to communicate in writing with the Sanitary Inspector if you are aware of any nuisance arising from faulty drainage, accumulations of offensive matter, or the exposure for sale of unsound articles of food.

J. H. CROCKER, M.D.,
Medical Officer of Health.

Town Hall, Richmond, Surrey.

August, 1904.

Tuberculosis. During the year there were 44 deaths registered in the Borough as due to Phthisis, and 17 to other tubercular diseases, a total of 61 deaths due to tuberculosis. The number of deaths registered as due to this disease in 1903 was 54, and in 1902 the number was 42.

Of the total number of deaths in the Borough for 1904 this disease claimed 15 per cent. as compared with 11 per cent. for 1903, and 10 per cent. for 1902.

This percentage is very high, the average for England and Wales in 1903 being 10 per cent.

The excessive rainfall in the Thames Valley during the year 1903 probably accounts for the extra number of deaths in 1904, as the effect would not be immediately apparent. Damp, insanitary surroundings, overcrowding, and want of nourishment are the chief predisposing causes, and inhalations of the dried infected sputum from suffering patients the chief active cause of this disease.

Of the 61 deaths, 34 occurred between the ages of 25 and 65 years, a period of life when the individual ought to be of the greatest use to the State.

During the year there have been 19 cases notified voluntarily by medical practitioners. The houses of these patients, as well as of those certified as suffering from this disease in the monthly returns received from the Clerk to the Guardians, have been visited and advice given to the inmates as to precautionary measures that should be adopted. In several instances rooms have been disinfected which have been previously occupied by patients suffering from this disease, and in every instance where a death has been registered as due to this disease, the rooms and articles liable to retain infection have been disinfected, the bedding and such like articles having been sent to Mogden for this purpose.

A copy of the following letter has been sent to every medical practitioner in the Borough :—

Town Hall,
Richmond Surrey,
December 19th, 1904.

VOLUNTARY NOTIFICATION OF PHTHISIS.

Dear Sir,

Allow me to remind you that a fee of 2s. 6d. per case is paid by the Corporation for the notification of tuberculosis of the lungs or any other tubercular affection which may be a source of infection.

Disinfection of rooms and their contents will be carried out free of charge, after the death or removal of a tubercular patient, provided information is forwarded to the Health Department.

Your assistance will be much appreciated.

Believe me, dear sir,

Your faithfully,

J. H. CROCKER,

Medical Officer of Health.

MEASURES TAKEN TO PREVENT THE SPREAD OF INFECTIOUS DISEASES.

The ordinary routine followed when a case of infectious disease is notified has been explained in a previous report.

When a case of infectious disease is notified, as soon as possible, the Medical Officer or Sanitary Inspector calls at the house and investigates the possibility, or otherwise, of the case being isolated at home. If the Medical Officer of Health considers it is to the interest of the community that the patient should be removed to the Isolation Hospital, advice to this effect is accordingly given. If the patient remains at home, printed particulars as to isolation, disinfection, &c., together with a short epitome of the law bearing on the subject, are left at the house. During the period of illness periodic visits are made by the Sanitary Inspector to see that the instructions are being complied with. An addressed postcard is also left for the medical attendant to sign and forward at the termination of the illness, when he considers the house is ready for disinfection. Full particulars of the patient and other occupants of the house, number of rooms, condition of premises, milk supply and other matters bearing on the possible origin of the disease are entered on special printed forms and filed in the Health Office.

Special certificates are forwarded to the school teachers, if any occupants of the house attend school, the milk seller, and to the librarian at the Public Library. Any books which may be in

the house, borrowed from the Library, are taken to Mogden to be disinfected by Formaldehyde gas, or destroyed. Where a medical practitioner at the time of notifying a case gives satisfactory reasons to the Medical Officer of Health why a case should be removed to the Isolation Hospital, this is always acted upon previous to making the usual investigations.

Disinfection. Upon the removal or termination of an infectious case the bedding and clothing are removed to Mogden to be disinfected by steam. If the case is one of Small-pox the articles are removed to Dockwell for disinfection. The walls, ceilings and floors of the rooms are sprayed with solution of Formalin. Under certain circumstances books are disinfected in a special apparatus at Mogden. Disinfectant fluid and powder are supplied to householders free of cost from the Health Department.

Infectious Diseases Hospitals. These Hospitals are under a Joint Committee of representatives of the Borough of Richmond and the Urban District Council of Heston and Isleworth, and have been fully described in previous reports.

MOGDEN ISOLATION HOSPITAL.

Dr. Power, the Resident Medical Officer, reports as follows :—

**Return as to Patients for the year ending the 31st day of
December, 1904.**

ADMITTED.

	Scarlet Fever.	Diphtheria.	Enteric Fever.	Other Diseases.	Totals.
From the Borough of Richmond	46	15	—	2	63
„ „ Heston and Isleworth					
Urban District ...	48	26	6	—	80
„ „ Hounslow Barracks					
(Garrison) ...	1	4	—	—	5
„ „ Brentford Union					
(Isleworth) ...	1	1	—	—	2
„ „ Hospital Staff	1	1	—	2	4
TOTALS	97	47	6	4	154

DISCHARGED.

	Scarlet Fever.	Diphtheria.	Enteric Fever.	Other Diseases.	Totals.
From the Borough of Richmond	43	18	1	1	63
„ „ Heston and Isleworth					
Urban District ...	55	20	6	—	81
„ „ Hounslow Barracks					
(Garrison) ...	1	3	—	—	4
„ „ Brentford Union					
(Isleworth) ...	1	1	—	—	2
„ „ Hospital Staff	1	1	—	2	4
TOTALS	101	43	7	3	154

DIED.

	Scarlet Fever.	Diphtheria.	Totals.
From the Borough of Richmond	2	1	3
„ „ Heston and Isleworth Urban District	1	—	1
„ „ Hounslow Barracks (Garrison) ...	—	1	1
TOTALS ...	<u>3</u>	<u>2</u>	<u>5</u>

The following is a statement shewing the number of admissions for each year since the opening of the Hospital :—

Year.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Other Diseases.	Totals.
1898	42	20	7	1	70
1899	182	42	5	0	229
1900	176	56	6	0	238
1901	136	57	13	4	210
1902	183	85	9	2	279
1903	218	48	8	2	276
1904	97	47	6	4	154
TOTALS	<u>1034</u>	<u>355</u>	<u>54</u>	<u>13</u>	<u>1456</u>

MOGDEN HOSPITAL. ADMISSIONS CLASSIFIED.

	Richmond.				Richmond Union.				Heston and Isleworth.				Isleworth Union.				Hounslow Garrison.				Hospital Staff.				TOTALS.					
	Scarlet Fever.	Diphtheria.	Enteric Fever.	Other Diseases.	Total.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Other Diseases.	Total.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Other Diseases.	Total.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Other Diseases.	Total.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Other Diseases.	Total.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Other Diseases.	Total.
1898	25	9	1	1	36	..	..	..	..	..	16	11	5	..	32	..	..	..	..	..	1	..	..	1	..	42	20	7	1	70
1899	101	10	3	..	114	..	..	..	..	..	72	32	2	..	106	..	..	..	..	..	4	5	..	..	5	182	42	5	..	229
1900	55	19	3	..	77	1	..	..	..	..	119	37	3	..	159	..	..	..	..	..	..	1	..	..	1	176	56	6	..	238
1901	44	27	7	2	80	..	..	..	..	..	71	26	6	..	103	..	..	..	..	..	21	3	..	..	3	136	57	13	4	210
1902	78	25	3	2	108	..	..	..	..	..	76	51	6	..	133	3	2	..	..	..	26	5	..	..	2	183	85	9	2	279
1903	100	27	5	2	134	6	..	..	..	6	97	20	3	..	120	4	..	..	..	..	10	1	1	..	2	218	48	8	2	276
1904	46	15	..	2	63	..	..	..	..	..	48	26	6	..	80	1	1	..	..	..	1	4	..	..	4	97	47	6	4	154
Total ..	449	132	22	9	612	7	..	..	..	7	499	203	31	..	733	8	3	..	..	..	63	12	..	..	18	1034	355	54	13	1456

Extension of the Mogden Isolation Hospital.—In the last Annual Report is the following :—

“ During the year the Visiting Physician presented a special Report on the want of accommodation at Mogden Hospital together with suggestions as to the possible immediate requirements. The subject is under the consideration of the constituent Authorities.”

The matter is not yet settled, but as now there is such little difference between the suggestions of the two Authorities there is hope of a speedy settlement.

At the meeting of the Council of the Borough of Richmond in January, 1904, a letter was read, dated the 17th December, 1903, from the Clerk to the Heston and Isleworth Urban District Council, in reply to the suggestion of the Town Council that a conference of representatives from the two Authorities should be held to discuss the question of a supplement to the existing agreement as to Mogden Isolation Hospital, stating that the Heston and Isleworth Council would no doubt appoint delegates at their meeting on the 12th January to attend such conference, and suggesting that the Town Council should also appoint representatives. Resolved that the following members of the Council be appointed to act as representatives of the Town Council in the matter, viz., Alderman Burt, Councillors Alabaster, Chancellor, Morgan, Ward, and Thompson, and that, if any one of those members should be unable or unwilling to act, Alderman Roberts should be appointed a representative in his stead.

At the meeting of Council in March it was resolved that the report of the representatives of the Town Council appointed to meet representatives of the Heston and Isleworth Urban District Council in conference as to the proposed extension of Mogden Isolation Hospital, be received.

The representatives of the Town Council reported as follows :—

The conference between representatives of the Corporation of the Borough of Richmond and the Heston and Isleworth Urban District Council was held at the Town Hall, Richmond, on Thursday, 18th February, 1904.

After an explanation by Councillor Alabaster of the result of the establishment and working of the Hospital from 1898 to 1903, the following proposals were submitted by Alderman Burt, on behalf of the Richmond Representatives, for consideration.

The present Hospital Buildings accommodate	30	Scarlet Fever Patients.
The New Buildings will accommodate	16	„ „
	<hr/> 46	
	<hr/>	
	Say 45	Patients.

Therefore, the present Hospital Buildings will accommodate two-thirds and the new buildings one-third of the total number.

The Richmond Representatives propose, subject to the approval of the Town Council :—

(1) That as regards the two-thirds represented by the present buildings, the net cost of maintenance of buildings, staff, and patients shall be borne by the constituent Authorities according to rateable value, as provided by the existing Agreement.

(2) That as to the remaining one-third represented by the new buildings, the net cost of maintenance of buildings, staff, and patients shall be borne by the two Authorities in equal shares or on the basis of population.

(3) That each Authority shall provide one-half of the capital cost of the new buildings, furniture, and fittings.

After discussion it was arranged that the above proposals be left in the hands of the Representatives of the Heston and Isleworth Urban District Council for further consideration.

At the meeting of Council in June it was resolved that the report of the Joint Isolation Hospital Committee be received.

The Committee reported that they desired again to impress upon the constituent Councils that it was of urgent importance that the enlargement of the Hospital should not be delayed.

At the meeting of Council in July a letter was read, dated the 20th June, 1904, from the Clerk of the Heston and Isleworth Urban District Council, urging upon the Town Council the great necessity of providing additional accommodation at Mogden Isolation Hospital. Resolved that the Town Clerk be instructed to reply to the letter stating that this Council is not prepared to join in extending the Hospital on the terms of the present agreement, which has resulted so unfavourably for the Borough, and that the Heston and Isleworth District Council be invited further to consider and reply to the proposals submitted by the representatives of this Council on the 18th February last, and upon which no communication has as yet been received.

At the meeting of Council in August—read letter, dated the 27th July, 1904, from the Clerk to the Heston and Isleworth Urban District Council, stating that that Council had passed the following resolution with regard to the suggested extension of the Mogden Isolation Hospital :—

“That the Clerk be instructed to write to the Town Council of Richmond expressing the regret of this Council at the course adopted by the Borough Council, and stating that this Council is not disposed to consider the extension of the Hospital except under the conditions of the existing Agreement.”

Read also copy of letter, dated the 27th July, 1904, addressed by the Clerk to the Heston and Isleworth Urban District Council to the Local Government Board (and forwarded by the Clerk of the District Council to the Town Clerk) sending copies of the Reports of the Joint Isolation Hospital Committee

and the Medical Officer of Health for the Heston and Isleworth Urban District with regard to the proposed extension of the Mogden Isolation Hospital, and copy of the correspondence which has passed between the Councils on the subject, and asking for an expression of the Board's opinion on the matter.

At the meeting of Council in September a letter was read, dated the 22nd August, 1904, from the Local Government Board with respect to the proposed extension of Mogden Joint Isolation Hospital, and suggesting that a compromise with regard to that matter might be effected between the Corporation and the Heston and Isleworth Urban District Council on terms different from those provided by the Agreement in force or proposed by the Town Council. Resolved that consideration of the letter be referred to the representatives of the Town Council, who were appointed to confer with the deputation from the Heston and Isleworth Urban District Council as to the proposed extension of the Mogden Joint Isolation Hospital, viz. : Alderman Burt and Councillors Alabaster, Chancellor, Morgan, Thompson, and Ward.

At the meeting of the Council in November, the Committee reported that at their meeting a letter was read, dated the 12th October, from Mr. H. J. Baker, the clerk to the Heston and Isleworth Urban District Council, enclosing copy of a resolution passed by that Urban District Council on the 11th October, 1904. The following are copies of the letter and resolution agreed to :—

Heston and Isleworth Urban District Council,
Clerk's Office, Town Hall,
Hounslow,
12th October, 1904.

Dear Sir,

MOGDEN ISOLATION HOSPITAL PROPOSED EXTENSION.

Herewith I send you copy of a resolution passed by my Council at their meeting held last evening, and shall be glad to

hear from you that the Town Council will agree to the course proposed therein.

Yours faithfully,

(Signed) H. J. BAKER, Clerk.

F. B. SENIOR, ESQ.,

Clerk, Richmond Town Council.

Copy Resolution referred to.

PROPOSED EXTENSION AT MOGDEN HOSPITAL.

"Resolved that the Richmond Town Council be informed that this Council will be prepared to pay one half of the cost of carrying out the extensions at Mogden Hospital recommended by the Joint Isolation Hospital Committee on the 27th day of July, 1903, and of any future extensions which may be mutually agreed upon between the Councils, subject to the cost of maintenance remaining on the terms of the existing Agreement."

(Signed) H. J. BAKER,

Clerk to the Council.

The letter of the Local Government Board, dated 22nd August, 1904, addressed to the Town Clerk of the Richmond Corporation, covering a copy of a letter of even date from the Local Government Board to the Heston and Isleworth Urban District Council was also read, which letters were submitted to the Town Council on the 13th September, 1904. Resolved, on the recommendation of the Committee—

1. That the proposal of the Heston and Isleworth Urban District Council of the 11th October, 1904, that each Council pay one half of the cost of carrying out the extensions at Mogden Hospital, considered by the Town Council on the 13th October, 1903, be agreed to.

2. That the proposal of the Heston and Isleworth Urban District Council that any future extensions should

be on similar terms be not agreed to, but, that on the contrary, it be clearly understood that the present arrangements shall be without prejudice to any future extensions of the Hospital.

3. That the proposal of the Heston and Isleworth Urban District Council that the cost of maintenance of and in the proposed present extension should be on the terms of the existing Agreement be not agreed to, but that the Council adhere to the proposal discussed at the Conference held on the 18th February, 1904, and submitted to the Town Council on the 8th March, 1904, as to the cost of maintenance of patients in regard to the present extension.

At the meeting of the Council in January, 1905, the following report of the Special Committee was presented :—

The above Committee met on the 6th January, 1905, when a letter was read dated the 16th December, from Mr. H. J. Baker, the Clerk to the Heston and Isleworth Urban District Council, enclosing copy of a resolution passed by that Urban District Council on the 13th December, 1904. The following are copies of the letter and resolution referred to :—

Heston and Isleworth Urban District Council,

Clerk's Office, Town Hall,

Hounslow,

16th December, 1904.

Dear Sir,

PROPOSED EXTENSION OF MOGDEN HOSPITAL.

I beg to inform you that your letter of the 10th ultimo was submitted to the District Council at their meeting of the 13th instant, when I was directed to point out that their resolution of the 11th October last merely states that they will be prepared to pay one half of the cost of the proposed and any future extensions

at Mogden Hospital, subject to the cost of maintenance remaining on the terms of the existing agreement. The District Council therefore passed the following resolution :—

“ That the Richmond Town Council be informed that the proposal contained in the resolution passed on the 11th October, 1904, should be accepted or rejected as a whole.”

I am, dear Sir,

Yours faithfully,

(Signed) H. J. BAKER, Clerk.

F. B. Senior, Esq.

Town Clerk, Richmond, Surrey.

The above resolution was considered, and it was resolved to recommend the Town Council as follows :—

To reply to the resolution passed by the Heston and Isleworth Urban District Council on the 13th December last (contained in their Clerk's letter of the 16th December, 1904), that the Urban District Council be informed that the Richmond Town Council cannot accept as a whole the proposal contained in Mr. Baker's letter of the 12th October, 1904, and are not prepared to go beyond their resolutions of the 9th November, 1904, on the subject.

This was adopted by the Council.

Percentage of
Infectious Cases
removed to
Hospital.

Of the 96 cases of Diphtheria, Scarlet Fever, and Enteric Fever which were notified in the Borough, there were 62 removed to Hospital, which is at the rate of 64·5 per cent., as compared with 75 per cent. for the previous year.

			1904. Per cent.	1903. Per cent.	1902. Per cent.	1901. Per cent.
Small-pox	...	...	—	100	90	100
Diphtheria and Croup	...	...	66	64	63	66·6
Scarlet Fever...	...	..	67·6	84·8	84·7	84·6
Enteric Fever	...	...	28	30	47	75

**Bacterioscopic
Examination of
Material from
Suspected Cases
of Diphtheria
and Enteric
Fever.**

The arrangement made between the Health Committee and the Lister Institute of Preventive Medicine whereby any medical practitioner in the Borough can obtain at the Town Hall a suitable apparatus for collecting and forwarding material from suspected cases to the Lister Institute, has been found of great service.

There were 7 such samples forwarded from patients suspected to be suffering from Diphtheria, 2 of which showed the presence of Diphtheria Bacilli, and 4 samples of blood from suspected cases of Enteric Fever, 1 giving the Widal reaction.

In the majority of the cases, from the after course of the illnesses, the medical practitioners considered those specimens which gave a negative result were from patients who were not suffering from the disease first suspected.

**Bacterioscopic
Examination of
Sputum.**

Three specimens of Sputum have been examined throughout the year by the Medical Officer of Health and tubercle bacilli were found in each instance.

Appointment of Medical Inspector of Elementary Schools.

As a result of a Report presented to the Education Committee in February, 1904 (*Public Health*, April, 1904, page 414) the Medical Officer of Health was appointed Medical Officer to the Education Committee as from September 1st, 1904.

The following is a list of his duties :—

1. To visit each School at least once a Term.
2. To report in writing annually, or oftener if necessary, as to the sanitary condition of the School premises, and the general health of the scholars.

3. To attend, when requested, any meetings of the Education Committee or Sub-Committees.
4. To inspect any scholar attending school who may be in ill-health, for the purpose of exclusion from school if considered advisable by the Medical Officer, and to report the same immediately to the Medical Officer of Health.
5. To make periodical examination of the eyesight and hearing of the children in the schools.
6. To examine blind, deaf, and defective or feeble minded children, to advise whether they are suitable cases to be dealt with under the Elementary Education (Blind and Deaf Children) Act, and to give the necessary certificates.
7. To examine truant children before their despatch to Truant Schools.
8. To examine, when required by the Committee, any child who is stated to be physically unfit to attend school, and to give a certificate.
9. To examine, when required by the Committee, any candidates selected for appointment under the Committee, and to give certificates.
10. To visit, when required by the Committee, any employee who is absent from duty on account of illness, and to report in writing.
11. To examine, when required, any Plans for new buildings, or alteration of existing buildings, and to report as to their sanitary arrangements, ventilation, lighting, &c.
12. To give the Committee the benefit of his advice on special occasions when required.

THE INFANTS' DEPARTMENT OF ELEMENTARY SCHOOLS AND INFECTIOUS DISEASE.

The following particulars concerning the most common infectious disease affecting young children is of such importance that I feel no apology is due for bringing the matter under notice, particularly now that the Local Authority is directly interested in the Education question as well as that of the Public Health. From the Registrar General's statistics, we find that throughout England and Wales the death rate from most infectious diseases, as well as the general death rate, has gradually improved in recent years, with the exceptions of the deaths due to Diphtheria, Measles and Whooping Cough. During the past quarter of a Century there has been an actual increase in the death rate of these three diseases. Speaking generally, the same may be said regarding the death rate of the Borough of Richmond.

The Elementary Education Act of 1870, gives parents the right to demand Elementary Education; the Act of 1876 (c. 79, s. 7) applied indirect, and the Act of 1880 (c. 23) applied direct compulsion to the parent to enforce the child's attendance.

Although the youngest age at which children can be compelled to attend school has been fixed by the Act of 1870 (c. 75, s. 74, unrepealed by the 1902 Act) as five years of age, yet, children have been encouraged to attend school from the age of three years and even younger. Children under 3 years of age are allowed to attend school, but their attendance is not registered for any purpose (see Parl. Sec., Board of Education, House of Commons, March 10th, 1904). Since the Elementary Education Act of 1891 (c. 56) "every school^l district must provide sufficient public school accommodation without payment of fees for children over three and under 15 years of age."

For some years there has been a gradual increase in the number of scholars attending school between the ages of three and five years, such procedure having been stimulated by a Government Grant in the past. As by the new Code this Grant is to be

continued, there is evidently no desire at present to discourage such attendance. This Grant will amount to 15s. per unit per annum for children between the ages of three and five years attending school.

Ten per cent. of the children attending the Elementary Schools in the Borough of Richmond are below five years of age. The number of scholars on the Register of the Elementary Schools in the Borough on March 31st, 1904, was 4,229, of these 453 were below five years of age.

The four most common epidemic diseases which affect school children are Scarlet Fever, Diphtheria, Measles and Whooping Cough. We find upon analysis of the death and other returns for England and Wales, extending over a number of years, that the highest death rate of all these diseases occurs below 5 years of age, that the susceptibility to attacks is greatest below that age and that the "case mortality," *i.e.*, deaths in proportion to attacks, is much greater below 5 years of age than after. The Registrar General referring to Scarlet Fever in one of his Reports, states, "The longer an attack is deferred the less liable is it to occur at all, and not only so, but that even suppose it to occur eventually, the less likely is it to end fatally."

The same remarks are, to a certain extent, applicable to the other diseases under discussion.

The following Table of particulars of deaths from these diseases in this Borough for the past 14 years will emphasise the above statement as regards the deaths.

During the past 14 years, since the Incorporation of the Borough of Richmond, 310 deaths from the diseased mentioned have been registered in the Borough. 273 of these deaths occurred below 5 years of age.

Borough of Richmond. Deaths from Scarlet Fever, Diphtheria, Measles and Whooping Cough 1891—1904.

Year.	Scarlet Fever.		Diphtheria and Membranous Croup.		Measles.		Whooping Cough.	
	Under 5 years.	5 Years and over.	Under 5 years.	5 Years and over.	Under 5 years.	5 Years and over.	Under 5 years.	5 Years and over.
1891	...	1	1	1	16	2	22	...
1892	...	...	1	1	7	2	8	...
1893	2	...	5	1	2	...	9	...
1894	...	...	5	4	4	1	11	...
1895	...	...	...	...	1	...	...	...
1896	4	...	5	1	10	1	9	1
1897	1	1	1	2	3	...	9	...
1898	1	...	4	...	6	...	4	...
1899	...	...	2	2	15	...	2	...
1900	1	1	2	1	4	1	16	...
1901	...	...	4	...	3	...	8	...
1902	2	4	4	...	16	1	6	...
1903	2	...	5	4	3	1	2	...
1904	1	...	2	1	12	1	10	1 (5 years of age)
Totals for 14 years	14	7	41	18	102	10	116	2
Totals, all ages.	21		59		112		118	

POPULATION.—1891 (Census), 26,875. 1901 (Census), 31,677. 1904 (Estimated), 33,320.

From the above Table it will be seen that in the Borough of Richmond 90 per cent. of the deaths from Measles and 98 per cent. of the deaths from Whooping Cough occur below 5 years of age.

Taking the four diseases together for the 14 years we find 88 per cent. of the deaths occurred below 5 years of age. Of the total deaths from these four diseases, Measles and Whooping Cough accounted for 74 per cent.

There is no doubt, therefore, that the postponement of the attacks of these diseases is of the utmost importance.

From several years experience, I am convinced that under existing arrangements, school attendance of children below five years of age is the chief cause of the rapid spreading of these diseases, and consequently, owing to the very young age of these children, the chief cause of the most fatal attacks. This is not to be wondered at when we consider the mode of onset of these diseases and the mild nature of some of the attacks.

SCARLET FEVER is usually ushered in with feverishness, and the rash, as a rule, appears within 36 hours, consequently there is not so much risk of frequent epidemics by means of the schools as from any of the three other diseases under discussion. A mild case is sometimes not recognised by the parent, and if the child is sent to school he will spread the disease. The medical inspection of scholars will be of great importance under such circumstances as has been shown in previous Annual Reports of the Medical Officer of Health.

DIPHTHERIA.—Many cases of this disease occur of such a mild nature that without a bacterioscopic examination the disease cannot be diagnosed. An infected child attending school will readily spread the disease to those surrounding him.

Extract from the Annual Report of the Medical Officer of Health, Richmond, 1901 :—

“ DIPHTHERIA.—Several cases of this disease occurred at Kew in September, chiefly amongst the scholars of one school. The disease had been absent from this Ward for several months when a case was notified on September 18th. Upon investigation

the patient was found to be a scholar of an Elementary School at Kew, who had been attending school up to and including the day the disease was diagnosed. Information was sent from the school the following day that 14 children were absent, said to be suffering from sore throat. After consulting one of the Managers of the Schools, and pointing out that it was not the duty of the Medical Officer of Health to examine school children, at his request, I examined the children in the Infants' and Girls' classes. Out of 150 children I found 57 whose throats were a little inflamed and lymphatic glands in the neck enlarged. In only one instance was there any clinical evidence of diphtheria. Nine "swabs" were taken of the throats of 9 children selected indiscriminately from the 57, and these swabs were forwarded to the Jenner Institute of Preventive Medicine for bacteriological examination. Although at this stage only one case of diphtheria had been notified, from previous experience, I considered it advisable to recommend immediate closure of the schools; this advice was at once acted upon. The result of the bacteriological examination of the "swabs" demonstrated the presence of diphtheria bacilli in six out of the nine. During the following three weeks over 20 other cases of diphtheria were notified, all scholars of the same school."

Medical Inspection of scholars will evidently be of much assistance in preventing the spread of this disease.

MEASLES.—For the first three days of this affection the symptoms are those of an ordinary feverish cold, sneezing, watery eyes and slight cough. The child is infectious during this stage. Upon the appearance of the rash on the third or fourth day the child will probably be kept from school, but unfortunately he will in the meantime have infected several others. In our investigations of this disease in connection with the scholars of the Infants' Department of an Elementary School at Kew, we found upon visiting the homes of the 29 affected children that they all began to be ill

on or about the same day. Evidently an unrecognised case had attended school about a fortnight before and thus infected 29 children.

WHOOPING COUGH.--This disease begins like an ordinary slight bronchitic cough, and the characteristic whoop may not develop until a fortnight after the commencement, and in some instances there may be no "whoop" throughout the illness. During the whole period the child is infectious, but the nature of the ailment may not be recognised and consequently the child may be attending school.

It follows, therefore, that there is little probability of epidemics of Measles or Whooping Cough being prevented altogether in the Infants' Departments by medical inspection of scholars. As the early symptoms of these diseases are similar to ordinary colds in the head or chest, and as often as many as 90 per cent. of the children attending the Infants' Departments during the winter months are not free from such symptoms, it is obviously impossible to isolate the one or more infected cases until the symptoms are definite, and consequently not until after they have spread the infection.

In spite of all efforts, probably, epidemics of these diseases will occur amongst school children from time to time, but when we realise that every year the child grows older the less is the susceptibility to these diseases, and the less likely is the illness to be fatal if any of these diseases are contracted, it is evident that every endeavour should be made to prevent young children from being exposed to the danger of infection.

Reasons other than school attendance have been suggested as maintaining the high death rate of these diseases, such as—

1. **DELICATE CHILDREN.** In epidemics the delicate children are taken off and if they did not die from one of the infectious diseases they would die from some other complaint.

2. EPIDEMICS OF THESE DISEASES WILL OCCUR FROM TIME TO TIME AMONGST SCHOOL CHILDREN OVER 5 YEARS OF AGE, and thus the disease will be taken into the household and the younger children will contract the disease, notwithstanding their exclusion from school.

As regards the first statement, experience shows that the deaths occur in many children who are apparently strong and robust, and as regards the second statement, although there is a certain amount of truth in it, yet by means of educating the public as to the nature of the disease and the advantages of isolation—such as medical inspection of scholars, circulars to parents, frequent visits of the Sanitary Inspector to infected houses, &c.—the spread of infection can be very much limited. Because disease is spread through the ignorance or carelessness of parents, obviously, this cannot be used as a legitimate excuse for allowing disease to be spread by school attendance.

Again, the infection at school is on a “ wholesale ” scale affecting many young children who have no older brother or sister, the home infection being of a limited nature.

The points in favour of school attendance at an early age are :—

1. Young children like to attend school with their brothers and sisters.
2. Mothers are glad to be relieved from the charge of the children for 4 or 5 hours each day.
3. If the younger children are not sent to school the elder ones are kept from school to look after them.
4. The earlier the habit of school attendance is formed and education begun the better for the child.
5. The school and its surroundings are often better, from a sanitary point of view, than their homes.

6. A conscientious desire on the part of some parents and school managers that religious instruction should commence at an early age.
7. That although there may not be much advantage gained in the "three R's" of education yet the moral training, drill and slight discipline are of advantage.

On the other hand we must realise :—

1. It is generally admitted that children who first attend school soon after reaching 5 years of age, as regards education, in a short time overtake those who started earlier.
2. The earlier period of life is one of developement; food, sleep, warm clothing, fresh air and play are the normal conditions for this.
3. Close application, even for short periods, is apt to cause eye defects in the very young.
4. Mothers are glad to get rid of the children in some instances so that they can go out to work. This necessity, unfortunately, is sometimes the result of intemperance on the part of the father.
5. The placing of 60 or more young children in one class room, with a very limited amount of air space per individual, as allowed by the Board of Education, is certainly prejudicial to health by vitiation of the atmosphere, and by the risk of wholesale infection when an infected child is present. If the children are playing together in the open air there is less risk of contamination, and a less number would be in contact. As a rule, it is the overcrowding in the bedrooms which is injurious, this, of course, is not altered by the children attending school.
6. Unfortunately many parents are indifferent as to the moral training of their offspring and no doubt in such instances attendance at school at an early age has been, and will

be, of advantage to the child. Broadly speaking this can be classed as "Education," but does this come within the definition of "Elementary Education"?

As regards the financial aspect, the "Epidemic Grant," which was abolished in March, 1903, formerly lightened the local expense. A far greater proportion of this Grant was received on behalf of the children in the Infants' Departments than on behalf of the other scholars. This abolition, therefore, will necessitate a greater local expenditure in future than at any period previously, and will, in proportion, be greatest in the Infants' Departments of the schools.

The remedy is difficult to suggest, short of exclusion from school of all children below five years of age. As the law stands at present this is not possible, but it would be of an advantage if the School Attendance Officer disregarded the non-attendance at school of any child below 5 years of age.

It has been suggested that crèches, each to have a maximum of ten children only, might meet the difficulty. The expense connected with this arrangement would be great, but on the other hand there would be 10 per cent. more accommodation in the existing schools for older scholars. If the crèches were conducted in accordance with the Education Code, possibly the Government Grants could be obtained.

With a declining birth rate, which will in all probability still further decline, the heavy mortality from Measles and Whooping Cough throughout the country amongst children below five years of age is a national loss which we can ill afford. Consequently, to what extent this mortality is assisted by school attendance, and whether the existing state of the law should be allowed to continue or not, deserve the serious consideration of the Board of Education and the Education Authorities.

SECTION III.

Sanitary Matters.

SECTION III.

SPECIAL SANITARY MATTERS.

Water Supply, Previous to the formation of the Metropolitan Water Board the added area to the Borough, viz., Petersham, Kew, and North Sheen, was supplied with water entirely by the Southwark and Vauxhall Water Company.

By Section 12 of the Metropolis Water Act 1902 it is provided that as from the "appointed day" as defined by the said Act such parts of the said Borough of Richmond as are within the limits of supply as defined by the said Act shall cease to be within the said limits of supply, and the powers rights and duties of the Council with respect to the supply of water shall extend throughout their said Borough and all such waterworks and plant transferred to the Board under the said Act as are situate in the said Borough and which were at the passing of the said Act, or had been within six months immediately previous thereto in actual use for the supply of any part of the said Borough (other than waterworks or plant used for supplying with water any other place within the said limits of supply) shall be transferred to and shall vest in the Council upon such terms as may be agreed upon between the Council and the Board or as in default of agreement may be determined by arbitration under the said Act and that the Council shall also pay to the Board in respect of the loss by the Board, and the acquisition by the Council of the right of supplying water within the parts of the said Borough within which the Council were not supplying water at the passing of the said Act such sum (if any) as may be agreed upon or determined in like manner.

The Agreement between the Metropolitan Water Board and the Corporation of Richmond, as finally arranged, was signed and dated May 18th, 1904. In accordance with that Agreement £35,000 has been paid to the Water Board in consideration of the transfer of the said waterworks and plant, and in compensation for

the loss by the Board and acquisition by the Council of the right of supplying water within the "added area" of the Borough.

The Board shall as from the said appointed day supply water in bulk for use within the Borough and, if required, to the extent of 150 million gallons per annum, on the following terms—first 75 million gallons at two pence per 1,000 gallons, second 75 million gallons or beyond at sixpence per 1,000 gallons, a minimum of £1,000 a year being required from the Corporation by the Board. These prices are subject to revision every seven years. The result of this transaction has been a diminution of the water rate to all ratepayers in the added area, and if in addition to this the constant service is instituted—and I am informed, this is being favourably considered by the Water Committee—the district can well be congratulated on the Agreement from a sanitary and financial point of view.

PETERSHAM MEADOW. Several large hollows in the meadow have been filled in, and measures instituted for piping the open water course crossing the meadow.

DEEP WELL. The water from this well continues in an excellent condition.

ANALYSES. Chemical analyses of the various supplies have been made by the Medical Officer of Health and bacteriological examination by Professor Klein at different periods throughout the year.

Red Lion Street area. During the year 1904 a distinct advance has been made in connection with this area, and there is every prospect that in the immediate future the nuisances thereon will be abolished and the area improved, both from a sanitary and esthetic point of view. In March a resolution was passed by the Council to purchase Nos. 1 to 6 Shrewton Cottages, and a shed or small warehouse at the corner of Red Lion Street.

At the meeting of the Council in May, the Street Improvement Committee reported that the question of the Red Lion Street Area was still engaging their serious attention, and they had under consideration several proposals for dealing with, and developing the area, and improving its sanitary condition. They had also been in negotiation with the Trustees of the Toby Estate for the purchase of their copyhold interest in several properties, which would, in whole or in part, be required for the improvement, whichever proposal for dealing with the area might be ultimately adopted. The properties referred to consisted of 28 dwelling houses, a forge and 3 sheds in the area, and Church Cottage outside the area.

It was resolved that the copyhold interest of the Trustees of the Toby Estate in 28 dwelling houses, a forge and three sheds in the Red Lion Street Area, and Church Cottage, outside the Area, be purchased, subject to a contract being entered into to the satisfaction of the Committee.

In July it was arranged to purchase the copyhold properties, 10 and 12 Prospect Place, and in August the stabling and premises opposite Down's Buildings. In October arrangements were made with Messrs. Clutton concerning the enfranchisement of the copyhold property within the Red Lion Street area, and at the meeting of Council in October it was resolved to purchase the copyhold interest in Nos. 1, 3, 8 and 10 Artichoke Alley, warehouse in Victoria Place, Nos. 5, 6, 7, 8, 2 Wellington Place, sheds and stabling at end of Victoria Place, and No. 27 Red Lion Street. The leasehold interests in Nos. 5, 7 and 9 Artichoke Alley, Church Cottage and Church House were also purchased.

At the same meeting of Council the advisability of applying to the Local Government Board for the issue of a Provisional Order under the Public Health Act 1875, was considered, and was adjourned for further consideration.

The following properties were recommended by the Street Improvement Committee to be included in such Provisional Order:

The Property situate within the area edged blue on a plan which was exhibited in the Council Chamber, except such properties as, at the date of the application, shall have been acquired by the Council.

The Coach Builder's Yard in Red Lion Street at the rear of No. 2, Hill Street.

Nos. 2 and 4, Hill Street.

No. 20, Hill Street.

Nos. 1A, 1, 2, and 3, George Street.

Nos. 1 and 2, King Street.

Nos. 3, 5 and 7, Hill Street.

The Yard behind Nos. 1 and 2, King Street.

Such portion of the Ship Hotel as overlaps No. 2, King Street.

It was resolved by the Council that such properties be included in the proposed Provisional Order.

At a Special Meeting of the Council held on Friday, the 21st day of October, 1904, convened in pursuance of a requisition signed by the Mayor, for the transaction of the following business, that is to say :—

1. To further consider the recommendations of the Street Improvement Committee as to the Red Lion Street Area, submitted to the last meeting of the Council and adjourned to this special meeting.
2. To read minutes of the Street Improvement Committee since the last meeting, unless the Council otherwise determine, and to receive the report and recommendations of the Committee and to take such action thereon as the Council may deem expedient.

The Committee reported that they had received from Mr. G. A. Breadmore a valuation of the undermentioned leasehold properties in the Red Lion Street Area, the copyhold interest in which the

Council had agreed to purchase from Toby's Trustees, and which leaseholds it was necessary should be acquired by the Corporation, viz :—

House and Shop, No. 20, Red Lion Street (formerly No. 1 Prospect Place) and two cottages in rear.	} Lease expires 25th March 1905.
Nos. 25 & 29, Red Lion Street.	
Nos. 11, 13 & 15, Artichoke Alley.	
Property in Eton Place.	} Lease expires 25th March, 1919.
No. 27, Red Lion Street.	

It was resolved that the leasehold properties in question be purchased accordingly, and that an agreement, embodying the terms of purchase recommended by the Committee, be sealed.

The Committee reported that they had further considered their recommendations submitted to the Council on the 11th instant, regarding the plan proposed for dealing with the Red Lion Street Area.

The Committee found that some misapprehension existed as to their intentions in regard to the widening of Red Lion Street itself. There had been no proposal to convert this street into an artery of traffic, but the Committee were of opinion that, in order to give satisfactory access both to the rear of the premises fronting upon George Street and to the new buildings to be erected on the South side of Red Lion Street, the roadway should be widened sufficiently to allow two vehicles to pass at any point. They were advised that a total width of 26 feet, including sidewalks, between Hill Street and the Red Lion Inn, would admit of this, and they recommended that a width not exceeding 26 feet be adopted.

RESOLVED, nem con., that the widening of that part of Red Lion Street between Hill Street and the Red Lion Inn to a width not exceeding 26 feet, including sidewalks, be approved.

The Committee reported that they had had before them the plans marked respectively A, B, C, D, E, F, of which copies had been sent to the members of the Council, and also another plan

received on the evening of their meeting from Councillor Banks, together with letters from Councillors Banks and Chancellor explaining their proposals.

The Committee were of opinion that Paradise Road from Mount Ararat Road to Halford Road, and Red Lion Street from Halford Road to the Red Lion Inn should be widened to 40 feet or 45 feet as might be practicable at various points, and that a new street, 36 feet wide, should be constructed from the Red Lion Inn to Victoria Place, and a second new street, 45 feet wide, from the Red Lion Inn to a point in Hill Street, immediately below the Talbot Hotel.

As a result of their consideration of the whole question, they had caused to be prepared a plan marked **H** of which a copy accompanied their report, and they recommended the Council to approve the same.

The Committee further recommended the Council to authorise them to take all necessary steps in the matter of scheduling the property and preparing for the application to the Local Government Board for the issue of a Provisional Order.

RESOLVED, nem. con., that the construction of a new street 36 feet wide, from the Red Lion Inn to Victoria Place, be approved.

RESOLVED, nem. con., that the construction of a second new street, 45 feet wide, from the Red Lion Inn to a point in Hill Street immediately below the Talbot Hotel, be approved.

RESOLVED, nem. con., that the widening of Paradise Road, from Mount Ararat Road to Halford Road, and of Red Lion Street from Halford Road to the Red Lion Inn, to 40 feet or 45 feet as may at various points be practicable, be approved.

RESOLVED, nem. con., that the plan of the proposed improvement in the Red Lion Street Area and in Hill Street, submitted by the Street Improvement Committee and marked **H**, be approved and adopted.

RESOLVED, nem. con., that the Street Improvement Committee be authorised to take all necessary steps in the matter of scheduling the property required for the widening of streets and improvement of the Red Lion Street Area, already agreed upon by the Council, and preparing the application to the Local Government Board for the issue of a Provisional Order.

In November the Council arranged to purchase the copyhold properties—Nos. 14 Artichoke Alley, 8 Prospect Place, 21 & 23 Red Lion Street, and the leasehold interest in No. 22 Red Lion Street.

At the same meeting of the Council it was also resolved that the statutory advertisements giving notice of the Committees' intention to apply for a Provisional Order be inserted in the "Richmond Herald" and the "Richmond and Twickenham Times" on the 12th, 19th, and 26th November instant.

Housing of the Working Classes. The Health Committee reported to the Council at the Meeting in December that they had requested the Borough Surveyor to report to them as to the desirability of erecting three additional Workmen's Dwellings on the vacant land, the property of the Corporation, in Manor Grove, and they would take such report into consideration at an early date.

The houses in Manor Grove built by the Corporation under Part III. of the Act continue to be in a satisfactory condition and are all occupied. Usually there is a long waiting list.

Mortuary. The new buildings are satisfactory and well cared for by the attendant. During the year there have been 50 bodies received at the Mortuary, 32 males and 18 females. Post mortem examinations were made upon 34 bodies, and 43 inquests were held.

Treatment of Sewage and Disposal of House and Trade Refuse. These matters are dealt with in a similar manner as explained in the Annual Report for 1901.

Sale of Food and Drugs Act.

The enforcement of this Act in the Borough has been carried out by the Inspector, acting under the County Council. Mr. R. A. Houghton, the County Inspector, reports as follows:—

I beg to forward herewith a list of the Articles purchased under the provisions of the above Act during the year 1904.

61 samples were taken, of which 53 were genuine, 7 slightly adulterated or deteriorated, and in one case only was it found necessary to take further proceedings, when a conviction was obtained.

I regret to report that the use of preservatives and artificial coloring matter appears to be more prevalent than formerly.

Articles Purchased.	Number of samples.	Genuine	Slightly adulterated or deteriorated.	Cases in which proceedings were taken.	Convictions obtained	Total Fines.
Milk ..	22	18	3	1	1	£1 7s. 6d.
Butter ..	9	8	1			
Spirits ..	13	12	1			
Beer ..	2	2				
Ice Cream ..	6	6				
Lime Juice ..	3	1	2			
Cocoa ..	3	3				
Sugar ..	1	1				
Vinegar ..	1	1				
Cheese ..	1	1				
Totals ..	61	53	7	1	1	£1 7s. 6d.

PUBLIC BATHS—SUPERINTENDENT'S RETURN OF BATHERS from 1st January to 31st December, 1904.

WEEK ENDING	SWIMMING BATHS.				WARM BATHS.				TOTALS.				Dressing Boxes.	
	1st Class.		2nd Class.		1st Class.		2nd Class.		Swimming.		Warm.			
	Gents.	Ladies	Gents.	Ladies	Gents.	Ladies	Gents.	Ladies	Gents.	Ladies	Gents.	Ladies		
1st January to 25th March ..					2928	109	1552	513			4480	622	426	
26th March to 10th June ..	7343	733	3718	150	1801	169	2572	876		11061	883	4373	1045	21
11th June to 16th September	16319	3525	8444	534	2474	256	3758	1504		24763	4059	6232	1760	..
17th September to 31st December	2315	383	628	72	3236	133	1934	714		2943	455	5170	847	539
Totals	25977	4641	12790	756	10439	667	9816	3607		38767	5397	20255	4274	986
For corresponding period of last year (1903.)	22950	4079	12627	716	10303	708	9649	3609		35577	4795	19952	4317	892

Total Number of Males (including Dressing Box Tickets)	..	60,008	56,421	47,100
Total Number of Females	..	9,671	9,112	8,674
Total Bathers	..	69,679	65,533	55,774

Corresponding period of 1903. Corresponding period of 1902.

ORDINARY SANITARY WORK OF THE HEALTH DEPARTMENT.

Staff. Chief Inspector : The late W. Parsons, Cert. San. Inst.
 Assistant Inspector : G. T. Norman, Cert. San. Inst.,
 part of year.
 Junior Assistant Inspector : W. S. Parsons.

Systematic Inspection. During the year there were 1,599 inspections of nuisances in course of abatement 1,111 houses inspected, 975 visits to cases of infectious diseases, besides systematic inspections of slaughter-houses, cowsheds, bakehouses, &c.

Abatement of Nuisances under the Public Health Acts. A summary of nuisances investigated by the Sanitary Inspectors during the year 1904 is given at the end of this Section, and it is satisfactory to report that at the end of the year, out of a total of 949 defects reported only 12 remained not done, all of which were reported during the end of December. Only 5 defects had to be reported to the Health Committee for their sanction to serve statutory notices on the owners, and these were abated during the time allowed by the notices.

The work of supervising the reconstruction of the drains and other sanitary arrangements where they are found defective is done by the Sanitary Inspector. During the year the drainage at 53 houses has been entirely reconstructed, *i.e.*, a fresh connection made to the sewer, new drains, either of tested earthenware or iron pipes, laid with efficient intercepting trap and the necessary chambers. All these drains stood the water test after they were covered. Full particulars of this work are kept in the Inspector's office for reference.

At 44 houses it was found that although a defect was discovered in the drains the reconstruction of a branch either to the water closet or sink pipes would put the drainage in a

satisfactory condition. These amendments were, in nearly every instance, the result of owners or occupiers employing inexperienced workmen, who, instead of using proper cane rods, had used iron rods, pokers, &c., for the purpose of unstopping the choked drains, consequently causing fracture of the pipes.

Seventy-one water closets have been reconstructed. In all these cases, the existing foul and defective water closet has been abolished and a wash-down or other suitable type of convenience fixed with efficient flushing apparatus, soil pipe and ventilating shaft of full bore. Careful supervision is exercised by the Inspector over this work. In all cases a lift-up seat is recommended, thus doing away with the objectionable "riser" (front boarding). In the case of cottage property the floor is made of concrete with a good fall from the back to the front of the structure so that it can be readily cleansed.

Where the pan or trap of a water closet was found broken it has been put under the heading of water closets defective. This occurred in 19 cases.

In most of the cases of the flushing apparatus being defective, the existing cistern was abolished and a suitable one fixed.

Sixty-seven houses were found to have defective dust bins; proper and suitable bins were provided in each case.

In eighteen cases the premises were found to be deficient of a proper and sufficient supply of water for drinking and domestic purposes, all arising from either the cistern or the service pipes being in a defective condition.

The walls and ceilings of ninety-six rooms were found to be in a dirty condition, and these were cleansed and limewashed.

Under the headings, "Walls and ceilings to be cleansed after infectious disease," and "Floors and furniture of infected rooms to be cleansed after infectious disease or in a dirty condition," 116

rooms were cleansed and 122 floors and furniture cleaned. Included under the latter heading are a number of floors of houses which were found in a dirty condition.

Considerable trouble has been caused by occupiers of stables delaying to get the manure pits emptied. Farmers do not appear to trouble to go out of their way to do this, and consequently the Sanitary Inspector has had to serve twenty-seven notices to have such accumulations removed.

Private Slaughter Houses. There are eight slaughter houses in the Borough. They have been regularly inspected. In four instances the walls and ceiling were found in a dirty condition. These were at once cleansed and lime-washed by the occupier.

Meat. Inspections of meat have been made by the Veterinary Surgeon and Sanitary Inspector. Special attention is given to this work, and all premises where the food of man is exposed for sale are visited from time to time. The Sanitary Inspector devotes several hours per week to this work, and it is gratifying to know that he has not found it necessary to make any seizures during the year. On several occasions tradesmen have sought advice of the Medical Officer or Sanitary Inspector as to the suitability of articles of food about which there was a doubt, and where it was considered that the articles were unfit for food they were at once destroyed.

Drainage Examinations. The water test is applied to all new drains, and to all drains relaid. The smoke test has been applied to the drains at 41 houses, and in 16 instances demonstrated that the drains were defective.

Dairies, Cowsheds, and Milkshops. There are 7 cowsheds and 22 dairies in the Borough, all of which have been regularly inspected. The following defects were discovered and remedied, viz. : Yard paving of one dairy defective.

Regulations under Section 13 of the Dairies, Cowsheds, and Milkshops Order were adopted April 7th, 1903, after being submitted to the Local Government Board.

Canal Boats. During the year one boat was inspected; this complied with the Acts in every respect.

SUMMARY OF THE SANITARY INSPECTOR'S REPORT
FOR THE YEAR 1904.

Number of visits made	...	...	...	4887
„ Complaints received and attended to	...	...	...	165
„ Statutory Notices served	...	...	...	5
„ Preliminary and Verbal Notices served	...	...	...	461

SUMMARY OF INSPECTIONS MADE.

Inspection of Nuisances in course of abatement	...	...	...	1599
Houses Inspected	...	...	...	1111
Visits to Cases of Infectious Disease	...	...	...	975
Inspections of Slaughterhouses	...	...	...	15
„ Milkshops	...	...	...	10
„ Cowsheds	...	...	...	14
„ Bakehouses	...	...	...	6
„ Workshops	...	...	...	19
„ Piggeries	...	...	...	17
„ Miscellaneous, Services of Notices, Interviewing Owners of Property, Builders, &c.				1121
				<hr/> 4887

SUMMARY OF NUISANCES INVESTIGATED BY THE SANITARY
INSPECTOR DURING THE YEAR 1904.

	No. done.	No. not done.	TOTAL.
Drains to be reconstructed ...	53	0	53
Drains amended ...	44	0	44
Drains cleared ...	56	4	60
Water Closets to be reconstructed ...	71	0	71
Water Closets defective ...	19	0	19
Water Closets, flushing apparatus defective ...	45	0	45
Water Closets, want of light and ventilation ...	1	0	1
Water Closets, soil pipes defective...	12	0	12
Premises without proper and suitably covered dust bins ...	67	0	67
Sink Waste Pipes in a defective condition ...	25	0	25
Premises without a proper and sufficient supply of water for drinking and domestic purposes	18	0	18
Drinking Water Cisterns in a defective condition	12	0	12
Drinking Water Cisterns without a proper cover	22	0	22
Drinking Water Cisterns in a dirty condition ...	24	0	24
Eave Gutters and Rain Water Pipes defective ...	38	1	39
Roofs defective ...	8	0	8
Yards without proper Paving and Drainage ...	39	1	40
Animals kept so as to be a nuisance ...	11	4	15
Houses so overcrowded as to be dangerous or injurious to the health of the inmates ...	0	0	0
Workrooms without proper light and ventilation	0	0	0
Walls and Ceilings in a dirty condition ...	96	0	96
Walls and Ceilings to be cleansed after Infectious Disease ...	116	0	116
Floors and Furniture of infected rooms to be cleansed after Infectious Disease ...	122	0	122
Foul accumulation to be removed...	27	2	29
Miscellaneous ...	11	0	11
TOTALS ...	937	12	949

FACTORY AND WORKSHOP ACT, 1901.

Underground Bakehouses. In two instances the requirements of the Health Committee for structural alterations could not be carried out, and consequently the bakehouses were closed. Certificates were granted to the occupiers of the other underground bakehouses with one exception. This certificate was withheld for a time, as the alterations were not considered satisfactory.

Bakehouses. These have been periodically visited by the Medical Officer, and generally found in a satisfactory condition. A new bakehouse, with all modern improvements, has been erected by one firm, and the operatives and the public are to be congratulated on the excellent arrangements therein provided.

The following is a summary of the work done during the year under this Act :—

FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES, AND HOMEWORK.

1—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories (including Factory Laundries)...	6	—	—
Workshops (including Workshop Laundries) ...	40	10	—
Workplaces ...	37	—	—
Homeworkers' Premises ...	16	—	—
Total ...	99	10	—

2—DEFECTS FOUND.

Particulars.	Number of Defects.			
	Found.	Remedied.	Referred to H.M. Inspector.	Number of Prosecutions.
<i>Nuisances under the Public Health Acts:—</i>				
Want of cleanliness ...	5	5	—	—
Want of ventilation ...	—	—	—	—
Overcrowding ...	—	—	—	—
Want of drainage of floors ...	1	1	—	—
Other nuisances ...	—	—	—	—
<i>Sanitary accommodations—</i>				
Insufficient ...	—	—	—	—
Unsuitable or defective ...	4	4	—	—
Not separate for sexes ...	—	—	—	—
	10	10	—	—

3—OTHER MATTERS.

Class.	Number.
<i>Matters notified to H.M. Inspectors of Factories:—</i>	
Failure to affix Abstract of the Factory and Workshop Act (S. 133) ...	—
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Act (S. 5).	<div> <div>Notified by H.M. Inspector</div> <div>Reports (of action taken) sent to H.M. Inspectors</div> </div>
	2
	2

Underground Bakehouses (S. 101):—

In use during 1903 ...	9
Certificates granted in 1904 ...	7
In use at the end of 1904 ...	7

Homework :—

Number of
Lists. Outworkers.*Lists of Outworkers (S. 107) :—*

Lists received	6	9
Addresses of outworkers	forwarded to other					
	Authorities ...				2	
	received from other					
	Authorities ...				9	

Wearing
Apparel. Other.*Homework in unwholesome or infected premises :—*

Notices prohibiting homework in unwholesome premises (S. 108)	...	...	...	...	—	—
Cases of infectious disease notified in homeworkers' premises	...	...	...	...	—	—
Orders prohibiting homework in infected premises (S. 110)	...	...	...	...	—	—

Workshops on the Register (S. 131) at the end of 1904—

Workshop Bakehouses	...	...	...	...	28
Dressmakers and Milliners	...	...	...	...	37
Laundries	...	...	...	...	27
Other trades	...	...	...	...	46
Total number of workshops on Register					138

Home Work.

Employers within the Borough notified five outworkers who resided within the Borough. Workroom and house were inspected in each case. Two outworkers who resided outside the Borough were also notified and the information transmitted to the districts concerned. Information was received from other authorities of nine outworkers residing in Richmond, and the workroom was inspected in each case.

A copy of the following circular letter, by order of the Health Committee, was forwarded to each employer in the Borough :—

Town Hall,
Richmond, Surrey.

HOME WORK.

Dear Sir or Madam,

I am directed by the Health Committee to call your attention to Section 107 of the Factory and Workshops Act of 1901, which refers to Outworkers. By the Act of 1891 power was given to the Secretary of State to require the occupier of any factory or workshop, and any contractor employed by such an occupier to keep a list showing the names and addresses of all persons employed by them (either as workmen or as contractors) outside the factory or workshop, and the places where they are employed. This requirement under the Act of 1901, which came into force in January last, now applies to *any place* from which work is given out. A copy of such list MUST be sent to the Town Council twice a year, on or before February 1st and August 1st, but a copy need only be sent to the Factory Inspector when he requires it.

A Special Order has been made by the Secretary of State requiring these lists to be kept by occupiers and contractors in the following trades :—

The making, cleaning, washing, altering, ornamenting, finishing, and repairing of wearing apparel, and any work incidental thereto.

The making, ornamenting, mending, and finishing of lace, and of lace curtains and nets.

Cabinet and furniture making and upholstery work.

The making of electro plate.

The making of files.

Fur pulling.

If you employ any Outworkers you are requested to furnish such list forthwith, as by any contravention of the Section referred to you render yourself liable to a fine of forty shillings, and in the event of a second offence to a fine of £5.

Believe me,

Dear Sir or Madam,

Yours truly,

J. H. CROCKER,

Medical Officer of Health.

SECTION IV.

Meteorological Report.

SECTION IV.

METEOROLOGICAL REPORT. Terrace Gardens.

From particulars furnished by Mr. E. Skelton, Borough Gardener.

JANUARY.

Barometer. The mean pressure for the month was 29·8 inches, being slightly below the mean for the 30 years previously, which was 30 inches. From the 6th of the month to the 14th, there was a gradual fall from above 30 to below 29 inches, and this was followed by a rise to 30·6 inches on the 22nd, when the mercury again fell, reaching 29 inches at the end of the month.

Thermometers. The mean of the *maximum* thermometer for the month was 44·29 degrees, and the mean for the month for the 30 years previously was 43·8 degrees. The *minimum* thermometer followed somewhat the variations of the maximum, the mean for the month being 33·6 degrees, this being the same as the mean for the preceding 30 years. The lowest temperature registered was 25 degrees on the 1st and 25th of the month.

Rainfall. Rain or snow fell on 22 days during the month, as compared with 16 for the previous year and 16 the mean for the month for the preceding 35 years. The rainfall was 2·53 inches, being above the mean for 20 years, which was 2·01 inches.

Wind. The wind was E. or S.E. for the first 6 days, then chiefly S.W. and S. during the remainder of the month.

FEBRUARY.

Barometer The mean pressure for the month was 29·4 inches, being below the mean for the month for the preceding 30 years, viz., 29·99. There was a gradual rise to the end of the month from the 17th.

Thermometers. The mean *maximum* temperature was 44·7, the mean for the preceding 30 years being 45·8. The highest point reached was 50·3 degrees on the 20th of the month. The mean *minimum* temperature was 34·2 degrees, as compared with 34·7 degrees the mean for the month during the preceding 30 years. The lowest record was at the end of the month when it registered 28 degrees.

Rainfall. Rain fell on 18 days during the month, the total rainfall being 2·18 inches, as compared with 1·69 the mean for the preceding 35 years.

Wind. During most of the month the wind was from the West chiefly S.W. veering to E. at the end of the month.

MARCH.

Barometer. The mean pressure for the month was 29·8 inches, being the same as the mean for the preceding 30 years.

Thermometers. The mean *maximum* temperature was 48 degrees, as compared with 50·1 degrees the mean for the preceding 30 years. The mean *minimum* temperature was 34·2 degrees, as compared with 35·3 the mean for the preceding 30 years.

Rainfall. Rain fell on 17 days during the month, the total fall being 1·34 inches, as compared with 1·49 the mean for the preceding 35 years.

Wind. Chiefly N. or N.E. until the 12th of the month, then S.W. changing to N. or N.E. towards the end of the month.

APRIL.

Barometer. The mean pressure for the month was 29·8 inches, as compared with 29·9 the mean for the preceding 30 years.

Thermometers. The mean *maximum* temperature was 59·3 degrees, as compared with 56·6 the mean for the preceding 30 years. The mean *minimum* temperature was 41·6 degrees, as compared with 39·9 degrees the mean for the preceding 30 years.

Rainfall. Rain fell 11 days in the month, the total being ·85 inches as compared with 1·65 the mean for the preceding 35 years.

Wind. Chiefly from the W. or S.W.

MAY.

Barometer. The mean barometric pressure for the month was 29·8 inches, as compared with 29·98 the mean for 30 years.

Thermometers. The mean *maximum* temperature was 61 degrees, as compared with 62·6 degrees the mean for the preceding 30 years. The mean *minimum* temperature was 45·6 degrees, as compared with 44·5 the mean for the previous 30 years.

Rainfall. Rain fell on 18 days. Total amount 2·80 inches, the mean for 35 years being 1·69.

Wind: S.W. with variations to N.E.

JUNE.

Barometer. The mean barometric pressure for the month was 29·9 inches, being the same as the mean for the preceding 30 years.

Thermometers. The mean *maximum* temperature was 65.9 degrees, as compared with 69.5 degrees the mean for the preceding 30 years. The mean *minimum* temperature was 49.3 degrees, as compared with 50.9 degrees the mean for the preceding 30 years. The lowest temperature registered was 45 degrees on the 7th.

Rainfall. Rain fell on 7 days, the total being only 0.91, as compared with 6.54 inches in June, 1903, and 3.6 inches during 17 days in June, 1902. The mean for the preceding 35 years was 1.93.

Wind. Chiefly from the N.E. during the first week, veering to N.W. and S.W. during the remainder of the month.

JULY.

Barometer. The mean pressure was 30 inches, being the same as that for the preceding 30 years.

Thermometers. The mean *maximum* temperature was 74 degrees, as compared with 72.7 degrees, the mean for the past 30 years. The mean *minimum* temperature was 56.1 degrees, the mean for the preceding 30 years being 54.2 degrees.

Rainfall. Rain fell on 9 different days to a total of 2.02 inches. The mean for the past 35 years was 2.27.

Wind. Chiefly from the West.

AUGUST.

Barometer The mean pressure was 30 inches, that for the past 30 years being 29.96.

Thermometers. The mean *maximum* temperature was 70.1 degrees, the mean for the preceding 30 years.

being 71.9 degrees. The mean *minimum* temperature was 52.7 degrees. The mean for the preceding 30 years was 53 degrees.

Rainfall. Rain fell on 9 days to the extent of 1.88 inches, the mean for the preceding 35 years being 2.30.

Wind. From the W.

SEPTEMBER.

Barometer. The mean pressure was 30 inches, being the same as the mean for the preceding 30 years.

Thermometers. The mean *maximum* temperature was 62.5 degrees, being below the mean for the preceding 30 years. The mean *minimum* temperature was 47.4 degrees, as compared with 49.7 degrees the mean for the preceding 30 years. The lowest point reached was 39 degrees on the last day of the month.

Rainfall. On 11 days rain fell; total 1.36 inches, the mean for the preceding 35 years was 2.21.

Wind. S.W. at the beginning of the month, veering to E. and N.E. during the last fortnight of the month.

OCTOBER.

Barometer. The mean pressure was 30 inches. The mean for the preceding 30 years was 29.8 inches.

Thermometers. The mean *maximum* temperature was 56 degrees, as compared with 56.8 degrees the mean for the preceding 30 years. The mean *minimum* temperature was 43 degrees, as compared with 42.9 degrees that for the preceding 30 years.

Rainfall. On 12 days rain fell; total 1.53 inches. The mean for the preceding 35 years was 2.7.

Wind. Chiefly from the N.W., changing to E. at the end of the month.

NOVEMBER.

Barometer. The mean pressure was 30 inches, being the same as the mean for the preceding 30 years.

Thermometers. The mean *maximum* temperature was 47·2 degrees, as compared with 49·8 degrees the mean for the preceding 30 years. The mean *minimum* temperature was 35 degrees, as compared with 38·5 degrees for the preceding 30 years.

Rainfall. Rain fell on 8 days and to the total amount of 1·5 inches. The mean for the preceding 35 years was 2·29.

Wind. Chiefly from the W.

DECEMBER.

Barometer. The mean pressure was 29·9 inches. The mean for the preceding 30 years was 29·95.

Thermometers. The mean *maximum* temperature was 44·9 degrees, as compared with 44·7 degrees the mean for the preceding 30 years. The mean *minimum* temperature was 34·8 degrees, as compared with 34·4, the mean for the preceding 30 years.

Rainfall. Rain fell on 13 days to the total of 1·89 inches. The mean for the preceding 35 years was 2·15 inches.

Wind. Chiefly from the W., S.W., or N.W.

RAINFALL, 1904.

MONTH.	Number of days on which rain fell in Richmond.		Total fall in inches.	
	1903	1904	Richmond 1904	London Mean for 1866-1900.
January	16	22	2.53	2.01
February	11	18	2.18	1.69
March	19	17	1.34	1.49
April	10	11	.85	1.65
May	16	18	2.80	1.69
June	11	7	.91	1.93
July	12	9	2.02	2.27
August	18	9	1.88	2.30
September	14	11	1.36	2.21
October	28	12	1.53	2.70
November	12	8	1.50	2.29
December	12	13	1.89	2.15
TOTAL	179	155	20.79	24.38

The rainfall for the year in Richmond was 20.79 inches, as compared with 36.13 inches for 1903, 21.2 inches for 1902, 17.54 inches for 1901, and 21.16 inches for 1900. January, February and May were the wettest months.

(Signed) J. H. CROCKER, M.D., &c.

Medical Officer of Health.

TOWN HALL,

RICHMOND, SURREY.

February 3rd, 1905.