

[Report of the Medical Officer of Health for Richmond].

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BOROUGH OF RICHMOND
(SURREY).

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR 1903,

BY

J. H. CROCKER, M.D.,

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Medical Officer of Health, Borough of Richmond,

AND

Visiting Physician, Mogden Isolation Hospital.

Richmond, Surrey.

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AND WATER LANE.

BOROUGH OF RICHMOND

SECRET

ANNUAL REPORT

MEDICAL OFFICER OF HEALTH

FOR THE YEAR 1903

J. H. GORDON, M.D.

Printed and bound by
The Richmond Printing Co.,
Richmond, Va.

TOWN HALL,
RICHMOND, SURREY,
February 12th, 1904.

To the Chairman and Members of the Health Committee.

GENTLEMEN,

Herewith I beg to present a Report upon the Health and Sanitary Conditions of the Borough for the year 1903, together with an epitome of the work done in the Health Department.

The following is an Extract from the Local Government Board Memorandum as to Annual Reports of Medical Officers of Health, dated October, 1903.

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

Believe me, Gentlemen,

Your obedient Servant,

J. H. CROCKER,

Medical Officer of Health.

HEALTH COMMITTEE, 1903.

HIS WORSHIP THE MAYOR.

NORTH WARD.

Councillor SKELTON.

„ A. J. WARD.

SOUTH WARD.

Alderman GASCOYNE, J.P.

Councillor ALABASTER.

„ HEASLER.

„ WADD, M.B. (*Chairman*).

EAST WARD.

Councillor COOK.

„ PIERREPONT.

„ TAYLOR.

„ THOMPSON.

WEST WARD.

Councillor BILLETT.

„ McDUGALL, J.P.

KEW WARD.

Councillor BEAUCHAMP.

„ DAYKIN.

Meetings every second Friday at 6.15 o'clock, p.m.

JOINT HOSPITAL COMMITTEE, 1903.

Members from the Richmond Corporation.

Alderman MARSH RAY.

Councillor METZNER.

Councillor ALABASTER (*Chairman*).

„ WADD, M.B.

„ DAYKIN.

„ A. J. WARD.

Meetings once a Month at 4.45 p.m.

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STATISTICAL SUMMARY

Population of Richmond - 1903

Population, estimated to the middle of the year	22,808
Male 11,404; Female 11,404	22,808
Annual Rate of Increase per 1,000 of population	1.0
Urban Rate of Increase per 1,000 of population	1.0
Annual Death Rate	13.0
Rate of Registration Births over Deaths	1.0
Registration Mortality per 1,000 births	11.1
Total Area of the Borough in Acres	2,534
The Mean Density of the Borough is equal to 12.9 persons per acre	

NOTICES

Statistical Summary.

Category	Rate per 1,000	Rate per 1,000	Rate per 1,000
England and Wales	1.4	13.4	1.0
Great Britain	1.4	13.4	1.0
100 smaller towns including Richmond	1.4	13.4	1.0
RICHMOND	1.0	13.0	1.0

STATISTICAL SUMMARY.

BOROUGH OF RICHMOND, 1903.

POPULATION, estimated to the middle of the year	...	32,808
BIRTHS. Males, 339; Females, 344	... ..	683
ANNUAL RATE OF BIRTHS per 1,000 of population	...	20·8
DEATHS. Males, 199; Females, 229	... ..	428
ANNUAL RATE OF DEATHS per 1,000 of population	...	13·0
ZYMOTIC DEATH RATE	... ..	·85
EXCESS OF REGISTERED BIRTHS OVER DEATHS	... ..	255
INFANTILE MORTALITY. Per 1,000 births	... ..	111
AREA. The Total Area of the Borough is	...	2534 acres
DENSITY. The Mean Density of the Borough is equal		to 12·9 persons per acre

1903.

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 ...	28·4	15·4	1·46	132
Rurul England & Wales	27·3	14·8	1·08	118
76 great towns... ..	29·7	16·3	1·89	144
103 smaller towns (including Richmond)	27·4	14·6	1·41	135
RICHMOND	20·8	13·0	0·85	111

SECTION I.

SECTION I.

Vital Statistics.

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 last two censuses; the allowance being made for the increase of population during that decade. The Registrar General in his quarterly returns for 1911 estimated the population of the Borough of Richmond for 1911 to be 82,304.

SECTION I.

VITAL STATISTICS.

Population. The following are particulars of the census 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 last two 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 1903 to be 32,808.

Divided into Wards the figures are as follows :—

Ward.	Population.		
		1901.	1903.
	Census.	Estimated at the Middle of the year.	Estimated at the Middle of the year.
North	9073	9139	9539
South	6038	6044	6078
East	9140	9176	9572
West	4727	4727	4765
Kew	2699	2714	2854
Total	31,677	31,800	32,808

Marriages. In the course of the year 312 marriages took place within the Borough, as follows :—

By the Established Church	202
At other places of Public Worship	30
At the offices of the Registrar	80
Total	312

This gives a marriage rate of 19 per 1,000 inhabitants in the Borough during the year 1903, as compared with 15·3 for the previous year. This is in excess of the mean annual rate for the previous ten years.

Births. The number of births registered during the year 1903 was 683, as compared with 658, the average for the preceding ten years. Of these, 339 were males and 344 were females. The birth rate for the year was **20·8** per 1,000 of the population. The average for the Borough during the preceding ten years was 21·8. There were 25 illegitimate births during 1903, 14 of these occurring in the Union Workhouse, 4 in the North Ward, 5 in the East, and 2 in the West Ward. The birth rate varied in the different Wards, being 26·2 in the North, 11·2 in the South, 25·7 in the East, 14·7 in the West, and 17·1 in the Kew Ward. The birth rate for England and Wales during 1903 was 28·4, being 0·2 per 1,000 below the rate in 1902, and lower than the rate in any year on record; for the 76 great towns on the Registrar General's list it was 29·7, and for the 103 smaller towns it was 27·4 per 1,000 of the population.

Deaths. The total number of deaths registered in the Borough during 1903 was 460; of these, 106 died in the Union Workhouse and Royal Hospital, 45 of whom belonged to outside districts. Eight patients from Richmond died at Mogden Isolation Hospital and 5 at Brookwood Asylum. Correcting for the above, results in a total of 428 deaths for the Borough—(199 males and 229 females)—which gives an annual rate of **13** per 1,000 of the population living.

The mean annual death rate of the Borough for the preceding ten years was 13·9. The death rate for England and Wales in 1903 was 15·4, the 76 great towns 16·3, and Rural England and Wales 14·8. 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, 34 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 12·4, South Ward 18·2, or without the Workhouse deaths 12·6, East Ward, 11·1, West Ward 11·3, and Kew Ward 12·9 per 1,000 of the population.

Births and Deaths during 1903 in the various Wards.

Wards.	Total Births.	Birth Rate per 1000 living.	Total Deaths	Death Rate per 1000 living.
North ...	250	26·2	119	12·4
South ...	68	11·2	111	12·6*
East ...	246	25·7	107	11·1
West ...	70	14·7	54	11·3
Kew ...	49	17·1	37	12·9
Total for Borough ...	683	20·8	428	13·0

* After deducting 34 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 28. This gives a zymotic death rate of ·85 per 1,000 persons living, being below the average for the Borough. The zymotic death rate of England and Wales for 1903 was 1·46, that for the 76 great towns 1·89, and Rural England and Wales 1·08.

Scarlet Fever.—2 deaths.

Measles.—4 deaths, all but one below five years of age.

Diphtheria and Croup.—10 deaths, six below five years of age

Whooping Cough.—2 deaths, both below five years of age.

Enteric fever.—One death.

Diarrhœa.—9 deaths, 7 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 148 deaths above 65 years of age, and 76 below one year of age.

Infantile Mortality. The total number of deaths under one year was 76; this is at the rate of 111 per 1,000 births. The average for the preceding 10 years was 132.

Tuberculosis. The total number of deaths attributed to this disease was 54, being 11 per cent. of the total deaths as compared with 10 per cent. for 1902. This is a little over a rate of 1.6 per 1,000 of the population, as compared with 1.3 for 1902, and 1 for 1901.

Respiratory Diseases. 51 deaths were registered as due to diseases of the chest other than phthisis. This gives a mortality of 1.5 per 1,000 of the population as against 2 for 1902 and 2.5 for 1901.

Deaths in Public Institutions.

	Parishioners.	Non-Parishioners.	Total.
In the Richmond Hospital	27	23	50
„ Union Workhouse ...	34	22	56
„ Brookwood Asylum ...	5	—	5
„ Mogden Hospital ...	8	—	8

Inquests. There were 32 inquests held in the Borough during the year, viz., Richmond 30, and Kew 2.

Coroner's Inquests held during the Year 1903, in the Kingston District of Surrey.

Kingston	...	...	...	...	60
Ham	...	...	...	...	4
New Malden	...	...	...	...	9
Surbiton	...	...	...	...	20
Hook	...	...	...	...	1

Wimbledon	...	...	...	...	33
Merton	...	...	...	...	8
Richmond	...	...	...	...	30
Kew ...	...	...	..	...	2
Mortlake	...	...	...	...	6
Barnes	...	...	...	...	31
Long Ditton	...	...	...	...	2
Thames Ditton	...	...	...	...	10
(142 Males and 74 Females)	...	...	...	...	<u>216</u>

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.	None.
Royal Hospital.	Dockwell Small-pox Hospital, Middlesex.	
	Brookwood Asylum.	



VITAL STATISTICS OF WHOLE DISTRICT DURING 1903 AND PREVIOUS YEARS
BOROUGH OF RICHMOND (SURREY).

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.				TOTAL DEATHS IN PUBLIC INSTITUTIONS IN THE DISTRICT.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	NETT DEATHS AT ALL AGES BELONGING TO THE DISTRICT.	
		Number.	Rate.*	Under 1 year of age		At all Ages.					Number.	Rate.*
				Number.	Rate per 1,000 Births registered.	Number.	Rate.*					
1	2	3	4	5	6	7	8	9	10	11	12	13
1893	28200	632	22.5	81	128	451	16.0	98	38	..	413	14.6
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
Averages for years 1893-1902.	30152	658	21.8	87	132	460	15.2	99	47	10	420	13.9
1903	32808	683	20.8	76	111	460	14	106	45	13	428	13

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

VITAL STATISTICS OF SEPARATE LOCALITIES IN 1903 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			75	13			43	7
1901 ..	31,800	707	427	78	9,139	226	110	28	6,044	76	90	6	9,176	266	107	28	4,727	97	70	7	2,714	42	48	11
1902 ..	32,300	641	426	59	9,403	211	119	19	6,068	66	98	5	9,320	232	107	22	4,735	81	60	8	2,774	51	42	5
1903 ..	32,808	683	428	76	9,539	250	119	29	6,078	68	111	8	9,572	246	107	24	4,765	70	54	8	2,854	49	37	7

CAUSES OF, AND AGES AT, DEATH DURING YEAR 1903.
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.	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	4	..	3	1	..	..	..	1	1	2	..	..	..
Scarlet Fever	2	..	2	..	..	..	..	..	..	1	1	..	..
Whooping-cough	2	1	1	..	..	..	..	2	..	..	..	..	..
Diphtheria and membranous croup	9	..	5	4	..	..	..	3	1	5	..	..	1
Croup	1	..	1	..	..	..	..	..	..	..	1	..	..
Enteric Fever	1	..	..	..	..	1	..	..	..	1	..	..	..
Epidemic influenza	8	..	..	..	..	2	6	1	3	..	1	3	1
Diarrhoea	9	7	1	..	..	1	..	4	2	2	1	..	2
Enteritis	2	..	..	..	..	..	2	..	2	..	..	..	..
Erysipelas	1	..	..	..	..	1	..	1	..	..	..	..	1
Other septic diseases	2	..	..	..	..	2	..	1	1	..	..	..	1
Phthisis	31	2	1	2	4	19	3	8	11	7	5	..	12
Other tubercular diseases	23	6	5	3	3	6	..	7	1	9	1	5	6
Cancer, malignant disease	29	..	1	..	..	21	7	6	9	6	5	3	4
Bronchitis	26	5	1	..	..	2	18	5	3	7	6	5	2
Pneumonia	24	3	4	..	..	11	6	9	7	5	3	..	7
Pleurisy	1	..	..	..	..	1	..	..	..	1	..	..	..
Alcoholism, Cirrhosis of liver	7	..	..	..	..	6	1	2	..	2	1	2	2
Premature birth	22	22	..	..	..	..	..	7	2	9	3	1	..
Diseases and accidents of parturition	1	..	..	..	..	1	..	1	..	..	..	..	..
Heart diseases	36	3	..	1	..	19	13	7	12	9	5	3	6
Accidents	8	3	..	1	2	..	2	4	2	..	1	1	2
Suicides	8	..	..	..	1	6	1	2	1	2	2	1	..
All other causes	171	24	8	4	2	44	89	48	53	39	18	13	59
All causes	428	76	33	16	12	143	148	119	111	107	54	37	106

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 1903 was 195. The number notified during the previous
year was 177; for the year 1901 the number was 131, and for 1900
it was 124.

TABLE OF MONTHLY NOTIFICATIONS.

SECTION II.		Total		Month	
Number of cases notified	Number of deaths	Number of cases notified	Number of deaths	Number of cases notified	Number of deaths
Infectious Diseases.					
1	0	1	0	January	0
2	0	2	0	February	0
3	0	3	0	March	0
4	0	4	0	April	0
5	0	5	0	May	0
6	0	6	0	June	0
7	0	7	0	July	0
8	0	8	0	August	0
9	0	9	0	September	0
10	0	10	0	October	0
11	0	11	0	November	0
12	0	12	0	December	0
13	0	13	0	Total	0

One of the above cases of enteric fever was brought from
Florence, and another from Spain; these were both treated in
the Royal Hospital.

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 1903 was 195. The number notified during the previous year was 177; for the year 1901 the number was 131, and for 1900 it was 154.

TABLE OF MONTHLY NOTIFICATIONS.

Month.	Totals	Small-pox.	Diphtheria.	Croup.	Erysipelas.	Scarlet Fever.	Enteric Fever.	Continued Fever.
January ...	5	1	2	...	1	1	...	...
February ...	20	...	3	...	1	14	2	...
March ...	35	...	1	...	5	28	1	...
April ...	19	...	2	...	3	12	2	...
May ...	17	...	2	...	...	15	...	...
June ...	16	...	5	1	...	9	1	...
July ...	20	...	3	...	1	13	2	1
August ...	9	...	3	...	2	4	...	...
September ...	20	..	9	...	1	8	2	...
October ...	10	...	3	...	1	6	...	...
November ...	14	...	5	...	1	6	2	...
December ...	10	...	4	...	2	3	1	...
Total ...	195	1	42	1	18	119	13	1

One of the above cases of enteric fever was brought from Morpeth, and another from Ham; these were both treated in the Royal Hospital.

CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1903.

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.										
Small-pox ..	1	..	..	..	..	1	..	1	..	..	..	..	..	1	..	..	..
Diphtheria ..	42	1	14	18	2	7	..	8	7	17	5	5	6	2	12	3	3
Membraneous croup ..	1	..	1	..	..	..	..	..	..	..	1	..	..	..	..	1	..
Erysipelas ..	18	..	1	1	1	14	1	1	4	5	5	3	..	..	..	..	..
Scarlet fever ..	119	3	44	59	11	2	..	26	11	43	39	..	21	8	37	35	..
Enteric fever ..	13	..	..	4	..	9	..	3	1	5	4	..	1	..	3	..	..
Continued fever	1	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..
Totals ..	195	4	60	82	14	34	1	38	25	70	54	8	28	11	52	39	3

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

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

NOTIFICATIONS OF INFECTIOUS DISEASES FROM 1891 TO 1903.

Disease.	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903
Small-pox .. ..	..	3	6	6	1	..	..	..	..	..	2	11	1
Scarlet fever ..	113	66	126	246	202	92	112	93	148	78	52	92	119
Diphtheria & mem- braneous croup	11	18	15	22	7	15	15	25	31	25	41	39	43
Enteric fever ..	11	36	6	10	15	6	15	8	10	21	12	17	13
Continued fever	20	1	..	..	..	..	6	8	6	4	4	..	1
Erysipelas ..	10	14	44	37	18	21	18	21	41	24	20	16	18
Puerperal fever ..	2	3	..	..	..	..	..	..	..	2	..	2	..
Total.. ..	167	141	197	321	243	134	166	155	236	154	131	177	195

Notification of Infectious Diseases by School Teachers. In 1901 arrangements were made with the Managers of the various Elementary Schools in the Borough for the notification of certain infectious cases by the School Teachers. The diseases included under the Infectious Diseases (Notification) Act are not placed on the list for the Teachers, as those diseases are legally bound to be notified by the parents or medical practitioner. The common infectious diseases, other than those which come under Notification Act, which may assume such an epidemic form as to necessitate the closure of a School are Measles, Whooping Cough, Chicken Pox and Mumps. When the School Teachers are informed that a child is from school said to be suffering from one or other of those diseases, a notification form is filled in and forwarded to the Medical Officer when the matter is investigated, and advice given to the parents as to the proper isolation of the patient.

The importance of these measures will be seen when it is realised that during the 13 years ending December, 1903, in the Borough of Richmond there have been 105 deaths from Measles and 101 deaths from Whooping Cough, whereas during the same period from Scarlet Fever—a disease which is considered by the majority of the public to be of a more serious nature than any of the above mentioned—there have been only 23 deaths, including the deaths of patients from Richmond at Mogden Hospital.

The following are particulars of the Notifications from the Schools during 1903 :—

PARTICULARS OF CASES NOTIFIED.

	Measles.	Whooping Cough.	Chicken Pox.	Mumps.
Suffering from ...	16	8	38	0
Other children not ill but } kept at home owing to } sickness in the house	15	10	33	0
	—	—	—	—
	31	18	71	0
	—	—	—	—

Number of houses in which the diseases occurred	...	43
" " notified but infectious disease not present		23
		—
Total houses visited	...	66
		—

Schools Notifying.			Number of Notifications (Houses).
Holy Trinity Schools, Princes Road	...	...	1
Holy Trinity Schools, Lower Mortlake Road	...	...	2
National Parochial School	...	...	2
St. John's School	...	...	1
St. Luke's School	...	...	24
Russell British School	...	...	5
St. Elizabeth's School	...	...	3
Discovered by Sanitary Inspector and other sources	...	...	5
			—
			43
Houses notified but no disease present	...	...	23
			—
Total	...	...	66
			—

PREVALENCE AND DISTRIBUTION OF INFECTIOUS DISEASES.

Small-pox. One case of this disease was notified in January from the Workhouse. The patient was a casual, who complained of feeling ill upon entering the workhouse grounds. He was isolated and the Medical Officer to the workhouse sent for, when the nature of the illness was at once recognised, and the patient removed to Dockwell Hospital. All precautionary measures were adopted, and no other cases occurred in connection with this patient.

Diphtheria. During the year there were 42 cases of this disease, and one of Croup, notified, as compared with 39 for the previous year. The annual average for the ten years ending December 31st, 1902 was 23. The disease was prevalent throughout the whole year, and existed in every ward, the greatest number of cases occurring in the East Ward, where there were 17 cases notified. The highest monthly notifications were in June and September, 5 and 9 respectively.

There was no epidemic in connection with any of the schools. Nine deaths occurred, being a case mortality of 21 per cent. Twenty-six of the patients were removed to Mogden Hospital, being 62 per cent of the cases notified.

As a difficulty has been experienced in readily obtaining anti-toxin in the Borough, particularly at night, or on other occasions when the Town Hall has been closed, arrangements have been made with the Committee of the Royal Hospital for the storing of serum at the Royal Hospital, Kew Foot Road. This concession has been much appreciated by the Medical practitioners in the Borough. The following is a copy of a circular letter sent to every Medical practitioner practising within the Borough :—

PUBLIC HEALTH DEPARTMENT,

TOWN HALL,

RICHMOND, SURREY,

August 15th, 1903.

DEAR SIR,

The Committee of the Richmond Royal Hospital, Kew Foot Road, have kindly consented, at the request of the Health Committee of this Borough, to allow a small quantity of anti-diphtheritic serum to be stored at the Royal Hospital for the convenience of the Medical Practitioners of the Borough, and they have arranged that upon the written or personal application of any Medical Practitioner in the Borough, such serum as required shall be supplied at any hour, day or night,

The stock will be renewed from time to time.

The anti-diphtheritic serum is obtained from the Lister Institute of Preventive Medicine, whose directions are as follows ;—

PRECAUTIONS TO BE OBSERVED WHEN USING
ANTI-DIPHTHERITIC SERUM.

1. For Prophylaxis it is recommended that 1 c.c. be injected in the case of healthy children or adults exposed to infection.

In cases of moderate severity, treated during the first three days of the disease, a dose of 2,000 units is sufficient. In more advanced cases and in all severe cases, 4,000 units should be injected, and the dose repeated if necessary.

2. The serum should be introduced into the subcutaneous tissue of the abdominal wall. The syringe, both *before* and *after* use, should be thoroughly washed with cold water, then boiled for five minutes.

3. The skin should be washed and disinfected according to the ordinary principles of antiseptis.

4. Joint pains and rashes of various types accompanied by rise of temperature sometimes occur after the injection. These need cause no apprehension.

5. It is important that a bacteriological diagnosis be made in each case. Specially prepared tubes and boxes for the forwarding of specimens may be obtained on application at the Public Health Department, Town Hall, Richmond. The membrane may also be forwarded in sterilised glass tubes or between folds of dry lint or blotting paper.

I would remind you that specially prepared tubes and boxes are also kept at the Public Health Department, Town Hall, for obtaining and forwarding specimens of pus, blood, &c., for the bacterioscopic diagnosis of suspected cases of Enteric Fever.

The expenses of the bacterioscopic examinations in Diphtheria and Enteric Fever are defrayed by the Corporation.

Believe me, dear Sir,

Yours faithfully

J. H. CROCKER, M.D., D.P.H.,

Medical Officer of Health.

Dr.....

Erysipelas. Eighteen cases were notified as compared with 16 for the previous year. One death was registered as due to this disease.

Scarlet Fever. One hundred and nineteen cases of this disease were notified throughout the year. There was a threatened epidemic during March, but prompt measures were taken as to removal to hospital with satisfactory results.

Twelve of the cases of this disease notified in March were scholars of one elementary school. On March 16th the Medical Officer of Health visited the school and inspected every scholar. One child was found "peeling" about the fingers, and upon interviewing the mother it was found the child had been kept at home—for what the mother thought was simply a cold—for a week from February 23rd. This child was removed to Mogden Hospital, all precautionary measures were taken in connection with the home, and the schools were thoroughly cleansed during the week end. The number of notifications rapidly diminished, and consequently the schools were not closed.

Towards the end of the year several cases of this disease were not removed to the hospital on account of the previous overcrowding at that Institution which necessitated a thorough cleansing and decorating of the wards.

Only two deaths were registered as due to this disease, being a case mortality of 1·6 per cent.

One hundred and one of the cases were removed to Mogden Hospital, being 84 per cent. of the cases notified.

Enteric Fever. There were 13 cases of this disease notified, as compared with 17 for the previous year. Four cases were removed to Hospital. One death was registered as due to this disease.

Continued Fever. One case of this disease was notified.

Measles. There were only 16 cases of this disease notified by the teachers, as compared with 245 in 1902. Altogether there were 31 children kept from school on account of suffering

from the disease, or because it existed in the household. Cautionary leaflets were left at each house. A copy of the leaflet was printed in last year's report. Four deaths occurred during the year from this disease, as compared with 17 during the year 1902.

Whooping Cough. There were 8 cases of this disease notified by school teachers during the year, and altogether 18 children were kept from school on account of this disease. During the previous year 32 cases were notified; in each instance advice was given as to isolation and precautionary measures adopted. Two deaths were registered as due to this disease, as compared with six for the previous year.

Chicken Pox. Several cases of this disease were investigated, some being seen in consultation with medical practitioners. Enquiries were made in every instance as to vaccination, and if the child had not been vaccinated the parents were advised to have this done immediately.

Altogether there were 38 cases of this disease notified by school teachers, and 71 children were kept from school in consequence. In June and July many cases of this disease arose in connection with scholars of St. Luke's Schools. No deaths were registered as due to this disease.

Diarrhœa. There were only 9 deaths from Diarrhœa during the year amongst young children, as compared with 10 for the previous year, and 23 for the year 1901. This disease is most prevalent during a hot and dry summer.

Tuberculosis. There were 31 deaths from phthisis and 23 from other tubercular diseases registered in the Borough during the year 1903, as compared with 26 and 16 respectively for the previous year. In other words, of the total deaths which occurred in the Borough during the year 1903, this disease claimed 11 per cent., the average for England and Wales being 10 per cent.

Of the 54 deaths, 25 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 15 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.

MEASURES TAKEN TO PREVENT THE SPREAD OF INFECTIOUS DISEASES.

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. Sanitas fluid and powder are supplied to householders free of cost upon an order 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.

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.

DOCKWELL HOSPITAL.

Only one case of small-pox was removed to this Hospital from Richmond. The patient recovered.

MOGDEN ISOLATION HOSPITAL.

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

Return as to Patients for the year ending the 31st day December, 1903.

ADMITTED.

	Scarlet Fever.	Diphtheria.	Enteric Fever.	Other Diseases.	Totals.
From the Borough of Richmond...	100	27	5	2	134
„ „ Richmond Union ...	6	—	—	—	6
„ „ Heston and Isleworth					
Urban District ...	97	20	3	—	120
„ „ Hounslow Barracks					
(Garrison) ...	10	—	—	—	10
„ „ Brentford Union					
(Isleworth) ...	4	—	—	—	4
„ „ Hospital Staff ...	1	1	—	—	2
	—	—	—	—	—
TOTALS	218	48	8	2	276

DISCHARGED.

	Scarlet Fever.	Diphtheria.	Enteric Fever.	Other Diseases.	Totals.
From the Borough of Richmond...	98	20	3	2	123
„ „ Richmond Union ...	6	—	—	—	6
„ „ Heston and Isleworth					
Urban District ...	95	21	4	—	120
„ „ Hounslow Barracks					
(Garrison) ...	22	—	—	—	22
„ „ Brentford Union					
(Isleworth) ...	6	—	—	—	6
„ „ Hospital Staff ...	1	1	—	—	2
	—	—	—	—	—
TOTALS	228	42	7	2	279

DIED.

	Scarlet Fever.	Diphtheria.	Enteric Fever.	Totals.
From the Borough of Richmond...	2	5	1	8
" " Heston and Isleworth Urban District ...	3	2	1	6
" " Brentford Union (Isleworth) ...	1	—	—	1
TOTALS	6	7	2	15

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
TOTALS	937	308	48	9	1302

Percentage of Infectious Cases removed to Hospital. Of the 176 cases of Small-pox, Diphtheria, Croup, Scarlet Fever, and Enteric Fever which were notified in the Borough, there were 133 removed to Hospital, which is at the rate of 75 per cent., as compared with 76 per cent. for the previous year.

	1903.	1902.	1901.
Small-pox	100 per cent.	90 per cent.	100 per cent.
Diphtheria & Croup	64 "	63 "	66.6 "
Scarlet Fever ...	84.8 "	84.7 "	84.6 "
Enteric Fever ...	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 21 such samples forwarded from patients suspected to be suffering from Diphtheria, 5 of which showed the presence of Diphtheria Bacilli, and 11 samples of blood from suspected cases of Enteric Fever, one 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.

Four specimens of Sputum have been examined throughout the year by the Medical Officer of Health, and tubercle bacilli were found in three instances.



SECTION III.

SPECIAL SANITARY MATTERS.

SECTION III.

Sanitary Matters.

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SPECIAL SANITARY MATTERS.

Water Supply. The supply for the Borough is from three sources : Deep Well, Petersham Well, and Southwark and Vauxhall Water Company.

At various periods throughout the year the Medical Officer of Health made chemical analyses of the water from the different sources of supply, a procedure which has been followed by him since his appointment in 1901. The results of the analyses together with some suggestions were reported to the Health and Water Committees, and are under consideration by the Water Committee.

Street Improvement Committee. The Street Improvement Committee completed the financial and other arrangements for the widening of George Street during the year, and are now considering the best means of dealing with the Red Lion Street area.

Red Lion Street Area. Previous to the appointment of the present Medical Officer of Health, the Council by resolution directed the Street Improvement Committee to formulate an improvement scheme for dealing with the badly constructed and irregularly arranged houses in the vicinity of Red Lion Street. In 1901, certain plots of property in this area were purchased by the Corporation, but owing to delay consequent on the Property being Copyhold of the Manor this was not enfranchised until the last year. This delay did not arise from any neglect on the part of the Corporation or its Officials. Upon completion of these negotiations, certain of the houses were closed and others

were put in a sanitary condition. Negotiations are now proceeding with regard to purchasing a large proportion of the remaining property within this area.

At a meeting of the Council held March 10th, 1903, in pursuance of notice, it was moved and seconded "That the Health Committee take all such steps as may be necessary to enable this Council to exercise the powers conferred upon it by the Housing of the Working Classes Acts with respect to the Red Lion Street area." This proposition was not carried, and it was eventually resolved "that the Street Improvement Committee be instructed to present to the Council as early as practicable a scheme for the improvement of the Red Lion Street area."

At the meeting of the Council held April 7th, the Street Improvement Committee reported that they had had under consideration the question of dealing with the Red Lion Street area, referred to them by the Council on the 10th March last. The subject would be further considered at an early date and a report presented to the Council as soon as possible.

At a meeting of the Council held 12th May, the Street Improvement Committee reported that they had considered a Report prepared by Mr. Richard Armstrong, F.R.I.B.A., upon the properties included in certain portions of what is known as the Red Lion Street area, and a copy of the Report, except such paragraphs thereof as relate to financial matters, accompanied their Report.

At a meeting of the Council held 4th August, the Street Improvement Committee reported that their attention had been called to a communication signed by 13 ratepayers acting under the Housing of the Working Classes Act, 1890, addressed to the Medical Officer of Health, directing him to inspect and report on the Red

Lion Street area, but, having regard to important negotiations now in progress, the Committee had passed the following resolution :—

“That inasmuch as the Committee are and for some time past have been taking steps for the acquisition by agreement of the properties referred to, and also have closed some of the insanitary premises in the area, it is in the opinion of the Committee desirable that the Medical Officer of Health should, for the present, defer the making of an official representation under the Housing of the Working Classes Act, 1890.”

The Council resolved that the Committee's action in this matter be approved.

At a meeting of the Council held 13th October, the Chairman of the Street Improvement Committee stated that the question of dealing with the Red Lion Street area was before the Committee, and they would report at the earliest possible opportunity.

At a meeting of the Council held 8th December, the Committee reported that they had had before them plans for the improvement of the Red Lion Street area, prepared respectively by Alderman Gascoyne, Councillor Carless, Mr. Armstrong and the Borough Surveyor, and they had appointed a Sub-Committee to examine such plans and the estimates as to the cost of carrying out the same, and to report to the Committee.

Housing of the Working Classes Act. During the year five houses were closed as unfit for human habitation. No legal proceedings were necessary. The three houses which were closed in Kew Road, reported in the Annual Report for 1902, have been demolished and the site built upon.

The houses built by the Corporation under Part III. of the 1890 Act, continue to be in a satisfactory condition, and are all occupied.

**New Mortuary,
Post Mortem,
and Waiting
Rooms.**

The new buildings, viz., Mortuary and Post Mortem Room have been completed and the portion of Eton Lodge left standing to act as a screen to the property on a higher level is being altered and adapted as waiting rooms. There was a desire on the part of some of the members of the Council to convert the upper rooms of Eton Lodge into a Coroner's Court. A communication, however, was received from the Local Government Board to the effect that the Corporation has no legal power to make provision for a Coroner's Court, and that the money borrowed for the purpose of altering Eton Lodge into waiting rooms could not be used for such a purpose.

In the event of an inquest being required in connection with a body at the mortuary, it would be a great convenience that this should take place upon the premises. Provided, therefore, the upper rooms at Eton Lodge are not in use at such a time, the Health Committee propose allowing them to be used for this purpose.

This proposed arrangement, of course, is entirely at the discretion of the Health Committee, and can be terminated at any time they consider it advisable. In no sense must it be considered as the provision of a Coroner's Court by the Corporation.

The Mortuary just completed consists of two rooms for the reception of bodies, with a wide passage between these rooms. Glass windows each side of the passage will allow of the jurymen viewing a body without going into the room.

Iron Catacombs, 16 in number, are placed at the end of each room, and in the larger room is a special air-tight tank for the reception of decomposed bodies.

In the yard there is a glass case where clothing can be hung up for inspection.

The post mortem room is on a separate, but adjoining site, to comply with the Public Health Act, 1875.

This room is fitted up with improved fittings; hot water is furnished by means of a geyser, and every convenience possible provided for the use of the medical men who may have to use this room.

Both the mortuary and Post Mortem room are lined throughout with white smooth surfaced tiles. Water, Gas, and Electric Light are laid on. These buildings are a vast improvement on the old Mortuary.

The total number of cases taken to the Mortuary during the year was 40 (Males 23, Females, 17). Post Mortem examinations were made upon 22 of these, and inquests held upon 32.

Sewerage of the Borough. These were fully described in the Annual Treatment of Sewage and Disposal of House and Trade Refuse. Report for 1901. The main sewer was re-laid in Duke Street and George Street from Greenside to King Street during the early part of the year.

Drinking Fountain and Cattle Trough. During the year the Metropolitan Drinking Fountain and Cattle Trough Association offered to provide a cattle and dog trough with a fountain end for human beings. This offer was accepted by the Council in July, and the Fountain has been fixed on the Gasworks Bridge, Lower Mortlake Road.

Richmond, &c., Open Spaces Act, 1902. At the meeting of the Council, 7th July, 1903, the Conveyance to the Corporation of Petersham Common, Petersham Meadows and the Richmond Riverside Land, under Section 5 (2) of the above Act was completed. These open spaces are therefore now vested in the Corporation.

Kew Bridge— The General Purposes Committee have under consideration the matter of constructing a Women's Lavatories, &c. Lavatory in Bush's Road. It is also proposed that the County Council shall erect a Men's Urinal at the West side of the New Bridge. This matter is receiving the consideration of the Surrey County Council.

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 give herewith a list of the samples taken during the year ended December 31st, 1903, which shows the quality of Milk sold in your District is well up to the usual standard.

The only samples found to be adulterated were those of two Greengage Jams, which, according to the Public Analyst, may have been an accidental admixture.

Proceedings were taken in one case, and the Defendant ordered to pay the Court Costs.

Articles Purchased.	Number of Samples	Genuine	Slightly Adulterated or Deteriorated	Cases in which proceedings were taken	Convictions Obtained.	Fines.
Milk ..	35	35				
Butter ..	9	9				
Spirits ..	10	10				
Ginger ..	1	1				
Liver Pills ..	1	1				
Magnesia ..	1	1				
Jam ..	2		2	1	1	Costs, 7s. 6d.
Totals..	59	57	2	1	1	£0 7s. 6d

PUBLIC BATHS—SUPERINTENDENT'S RETURN OF BATHERS from 1st January to 31st December, 1903.

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 27th March ..					3132	125	1510	496			4642	621	391
28th March to 12th June ..	6013	509	3609	146	1868	171	2688	925	9622	655	4556	1096	30
13th June to 18th September	14481	3221	8130	552	2173	262	3410	1461	22611	3773	5583	1723	..
19th September to 31st December	2456	349	888	18	3130	150	2041	727	3344	367	5171	877	471
Totals	22950	4079	12627	716	10303	708	9649	3609	35577	4795	19952	4317	892
For corresponding period of last year (1902.)	17155	3380	9696	895	10331	820	9075	3579	26851	4275	19406	4399	843

44

Total Number of Males (including Dressing Box Tickets)
Total Number of Females

56,421
9,112

Total Bathers

65,533

Corresponding period of last year (1902).

47,100
8,674

55,774

ORDINARY SANITARY WORK OF THE HEALTH DEPARTMENT.

Staff. Chief Inspector : W. Parsons, Cert. San. Inst.
Assistant Inspector : G. T. Norman, Cert. San. Inst.
Junior Assist. Inspector : W. S. Parsons.

Systematic Inspection. During the year there were 2,651 inspections of nuisances in course of abatement, 1,055 houses inspected. 803 visits to cases of infectious diseases, besides systematic inspections of slaughterhouses, milkshops, cowsheds, bakehouses, &c.

Abatement of Nuisances under the Public Health Acts. Details of work under this heading are given at the end of this Section. Many of these abatements were of a permanent nature, as for instance, under the heading "drains reconstructed," at 68 houses a new system of drainage was laid, in each instance, under the supervision of the Officers of the Health Department, whilst under the heading "water closets to be reconstructed," in 118 instances water closets of an approved form were fixed with proper flushing apparatus, soil pipe and ventilating shaft of full bore. In the case of cottage property the "riser" (front boarding) has been abolished under such circumstances, and the floors constructed of concrete with a fall towards the door. In other property a lift up seat has been constructed. Full particulars of these details are filed in the Health Department.

Private Slaughter Houses. There are 8 slaughter houses in the Borough. They have been regularly inspected and found satisfactory.

Meat. Inspections of meat offered for the sale of food have been made by the Veterinary Surgeon and Sanitary Inspector. Thirteen sheep's hearts were seized on December 29th, 1902, and the owner summoned before the Magistrates during January, 1903, when he was fined £10 and costs.

Drainage The water test is applied to all new drains, and to **Examinations.** all drains relaid. The smoke test has been applied to the drains at 73 houses, and in 27 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.: Walls and ceilings of one dairy dirty. 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 3 boats were inspected, the same number as in 1902. On December 2nd, His Majesty's Inspector under the Canal Boats Acts made his annual visit for the purpose of reporting to the Local Government Board as to how the Acts were enforced, and expressed himself satisfied with the way the duties were performed.

SUMMARY OF THE SANITARY INSPECTOR'S REPORT
FOR THE YEAR 1903.

Number of Visits made	...	...	...	5666
„ Complaints received and attended to			...	217
„ Statutory Notices served		...	...	9
„ Preliminary and Verbal Notices served			...	638

SUMMARY OF INSPECTIONS MADE.

Inspection of Nuisances in course of abatement	...	...	2651
Houses Inspected	...	...	1055
Visits to Cases of Infectious Disease	...	...	803
Inspections of Slaughterhouses	...	...	16
" Milkshops	...	...	14
" Cowsheds	...	...	17
" Bakehouses	...	...	25
" Workshops	...	...	152
" Piggeries	...	...	25
" Miscellaneous, Services of Notices, Inter- viewing Owners of Property, Builders, &c.			908
			—
			5666
			—

SUMMARY OF NUISANCES INVESTIGATED BY THE SANITARY
INSPECTOR DURING THE YEAR 1903.

	No. done.	No. not done.	TOTAL.
Drains to be reconstructed	68	1	69
Drains amended	34	0	34
Drains cleared	59	0	59
Water Closets to be reconstructed ...	118	3	121
Water Closets, defective	6	2	8
Water Closets, flushing apparatus defective...	54	0	54
Water Closets, want of light and ventilation...	1	0	1
Water Closets, soil pipes defective ...	26	1	27
Premises without proper and suitably covered dust bins	66	3	69
Sink Waste Pipes in a defective condition ...	27	1	28
Premises without a proper and sufficient supply of water for drinking and domestic purposes	15	0	15
Drinking Water Cisterns in a defective condition	27	0	27
Drinking Water Cisterns without a proper cover	47	1	48
Drinking Water Cisterns in a dirty condition	25	0	25
Eave Gutters and Rain Water Pipes defective	40	1	41
Roofs defective	29	0	29
Yards without proper Paving and Drainage ...	70	1	71
Animals kept so as to be a nuisance ...	10	0	10
Houses so overcrowded as to be dangerous or injurious to the health of the inmates ..	8	1	9
Workrooms without proper light and ventila- tion	7	0	7
Walls and Ceilings in a dirty condition ...	236	0	236
Walls and Ceilings to be cleansed after Infectious Disease	172	0	172
Floors and Furniture of infected rooms to be cleansed after Infectious Disease ...	172	0	172
Foul accumulation to be removed ...	20	1	21
Miscellaneous	22	1	23
TOTALS	1359	17	1376

FACTORY AND WORKSHOP ACT, 1901.

Underground Bakehouses. The Medical Officer of Health presented to the Health Committee on January 30th a Report on Underground Bakehouses, containing particulars of suggested requirements for these structures already in use at that time in the Borough. This Report was adopted and ordered to be printed, and a copy was forwarded to the occupier of each underground bakehouse. A copy of this Report can be obtained upon application to the Medical Officer of Health.

The structural alterations have been satisfactorily carried out under the supervision of the Borough Surveyor and Medical Officer of Health, and certificates granted in four instances. With the exception of two other structures which, in the opinion of the Medical Officer of Health, cannot be satisfactorily altered, the remainder are in course of alteration and certificates will be granted at an early date.

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

Visits of Inspection...Bakehouses, 25 ; Workshops, 152 ; Total, 177
 Number on Register.. „ 31 ; „ 98 ; „ 129

Insanitary conditions discovered and remedied:—

Bakehouse	...	...	Walls and ceilings dirty	...	3
„	...	...	„ defective	...	1
„	...	...	Water closet, inside	...	1
„	...	...	„ „ flushing apparatus..	...	1
„	...	...	Gully traps defective	...	1
„	...	...	Yard without paving & drainage...	...	1
Workshops and Laundries...			Overcrowded	...	7
„	„	...	Insufficiently ventilated	...	9
„	„	...	Walls and ceilings dirty	...	4

"	"	...	Roofs defective	...	...	2
"	"	...	Cistern defective	...	...	1
"	"	...	Cover to cistern	...	...	1
"	"	...	Yard without paving & drainage...			1
"	"	...	Water closet defective	...	...	1
"	"	...	Want of proper drainage	...	...	1
"	"	...	Flush to water closets...	...	...	2
"	"	...	Rain water pipe defective	...	...	1

Home Work. Employers within the Borough notified 9 outworkers who resided within the Borough. Workroom and house were inspected in each case. 13 outworkers who resided outside the Borough were also notified and the information transmitted to the Districts concerned. Information was received from Chiswick of two outworkers residing in Richmond, and the workroom was inspected in each case.



SECTION IV.

MAY 1897.

METEOROLOGICAL REPORT.

TERRACE GARDENS.

From particulars furnished by Mr. E. S. Weston, Barrington, Massachusetts.

JANUARY.

SECTION IV.

Meteorological Report.

The mean for the month was 44.5 degrees and the mean for the month for the 30 years previously was 43.5 degrees. The maximum thermometer followed somewhat the variations of the maximum. The mean for the month being 50.7 degrees, as compared with 52.5 degrees the mean for the preceding 30 years. The lowest temperature registered was 22 degrees on the 15th.

Rainfall. Rain or snow fell on 16 days during the month, as compared with 8 for the preceding year and 16 the mean for the month for the preceding 35 years. The rainfall was 2.5 inches being above the mean for 20 years, which was 2.01 inches.

SECTION IV.

METEOROLOGICAL REPORT. Terrace Gardens.

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

JANUARY.

Barometer. The mean pressure for the month was 29.9 inches, being slightly below the mean for the 30 years previously, which was 30 inches. With slight variations the barometer kept above 30 inches during the month, from the 13th being between 29 and 30 inches previous to that date.

Thermometers. The *maximum* thermometer fell from 50 degrees on the 9th of the month to 32 degrees on the 13th, and then gradually rose to 50 degrees at the end of the month. The mean for the month was 44.5 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 36.7 degrees, as compared with 33.6 degrees the mean for the preceding 30 years. The lowest temperature registered was 22 degrees on the 16th.

Rainfall. Rain or snow fell on 16 days during the month, as compared with 8 for the previous year and 16 the mean for the month for the preceding 35 years. The rainfall was 2.28 inches, being above the mean for 20 years, which was 2.01 inches.

Wind. The wind was S.W. for the first 9 days, then N.E. and E. until the 22nd, when it again veered to the S.W. and continued there during the remainder of the month.

FEBRUARY.

Barometer. The mean pressure for the month was 30 inches, being practically the same as the mean for the month for the preceding 30 years, viz., 29.99. It fell from 30.5 on the 17th to 29.3 on the 27th.

Thermometers. The mean *maximum* temperature was 50.8, the mean for the preceding 30 years being 45.8, The highest point reached was 60 degrees on the 20th of the month. The mean *minimum* temperature was 40.3 degrees, as compared with 34.7 degrees the mean for the month during the preceding 30 years. The lowest record was on the 2nd, when it registered 30 degrees. The lowest in 1902 was 17 degrees.

Rainfall. Rain fell on 11 days during the month, the total rainfall being 0.91 inches, as compared with 1.69 the mean for the preceding 35 years.

Wind. During the month the wind was from the West, chiefly S.W.

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 53.5 degrees, as compared with 50.1 degrees the mean for the preceding 30 years. The mean *minimum* temperature was 37.4 degrees, as compared with 35.3 the mean for the preceding

30 years. The lowest point was reached on the 11th, when 28 degrees were registered.

Rainfall. Rain fell on 19 days during the month, the total fall being 2.12 inches, as compared with 1.49 the mean for the preceding 35 years.

Wind. Chiefly S.W. throughout the month.

APRIL.

Barometer. The mean pressure for the month was 29.7 inches, as compared with 29.9 the mean for the preceding 30 years.

Thermometers. The mean *maximum* temperature was 53.4 degrees, as compared with 56.6 the mean for the preceding 30 years. The mean *minimum* temperature was 37 degrees, as compared with 39.9 degrees the mean for the preceding 30 years. The lowest was 28 degrees on the 16th and 17th.

Rainfall. Rain fell 10 days in the month, the total being 1.82 inches, as compared with 1.65 the mean for the preceding 35 years.

Wind. Chiefly from the N. and N.W.

MAY.

Barometer. The mean barometric pressure for the month was 29.7 inches, as compared with 29.98 the mean for 30 years. There was a gradual rise to 30.3 on the 24th.

Thermometers. The mean *maximum* temperature was 63 degrees, as compared with 62.6 degrees the mean for the preceding 30 years. There was a sharp rise of nearly 3 degrees from the 16th to the 27th of the month. Previous to the

16th the temperature was between 50 degrees and 60 degrees. From the 16th to the 27th it rose from 50 degrees to 78, keeping above 70 degrees for the remainder of the month. The mean *minimum* temperature was 46.4 degrees, as compared with 44.5 the mean for the previous 30 years.

Rainfall. Rain fell on 16 days. Total amount 3.64 inches, the mean for 35 years being 1.69. On the 30th of the month the rainfall was 1.34 inches.

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 degrees, as compared with 69.5 degrees the mean for the preceding 30 years. The mean *minimum* temperature was 49 degrees, as compared with 50.9 degrees the mean for the preceding 30 years. The lowest temperature registered was 41 degrees on the 13th and 27th.

Rainfall. Although rain fell on 11 days only, the total was 6.54 inches, as compared with 3.6 inches during 17 days in June, 1902. The mean for the preceding 35 years was 1.93.

Wind. Chiefly from the N., veering to S.W. at the end of the month.

JULY.

Barometer. The mean temperature was 29.8, being slightly lower than that for the preceding 30 years.

Thermometers. The mean *maximum* temperature was 68.9 degrees, being below the mean of the preceding 30 years, which was 72.7 degrees. The mean *minimum* temperature was 54.1 degrees, the mean for the preceding 30 years being 54.2 degrees.

Rainfall. Rain fell on 12 different days to a total of 4.17 inches. The mean for the past 35 years was 2.27.

Wind. Chiefly from the West.

AUGUST.

Barometer. The mean pressure was 29.7 inches, that for the past 30 years being 29.96.

Thermometers. The mean *maximum* temperature was 67 degrees, the mean for the preceding 30 years being 71.9 degrees. The mean *minimum* temperature was 52.2 degrees. The mean for the preceding 30 years was 53 degrees.

Rainfall. Rain fell on 18 days to the extent of 3.49 inches, the mean for the preceding 35 years being 2.30.

Wind. From the W.

SEPTEMBER.

Barometer. The mean pressure was 29.9 inches, being the same as the mean for the preceding 30 years.

Thermometers. The mean *maximum* temperature was 65 degrees, being slightly below the mean for the preceding 30 years. The mean *minimum* temperature was 51.3 degrees, as compared with 49.7 degrees the mean for the preceding 30 years. The lowest point reached was 38 degrees on the 12th.

Rainfall. On 14 days rain fell; total 3.06 inches. the mean for the preceding 35 years was 2.21.

Wind. S.W. at the beginning of the month, veering to N. and N.E. towards the end of the month.

OCTOBER.

Barometer. The mean pressure was 29.5 inches. The mean for the preceding 30 years was 29.8 inches.

Thermometers. The mean *maximum* temperature was 58 degrees, as compared with 56.8 degrees the mean for the preceding 30 years. The mean *minimum* temperature was 47.4 degrees, as compared with 42.9 degrees that for the preceding 30 years.

Rainfall. On 28 days rain fell; total 5.19 inches. The mean for the preceding 35 years was 2.7.

Wind. S.W. or S. during the whole of the month.

NOVEMBER.

Barometer. The mean pressure was 29.9 inches, being the same as the mean for the preceding 30 years.

Thermometers. The mean *maximum* temperature was 50 degrees, as compared with 49.8 degrees the mean for the preceding 30 years. The mean *minimum* temperature was 38.4 degrees, as compared with 38.5 degrees for the preceding 30 years.

Rainfall. Rain fell on 12 days and to the total amount of 1.51 inches. The mean for the preceding 35 years was 2.29.

Wind. Chiefly from the W.

DECEMBER.

Barometer. The mean pressure was 29.6 inches. The mean for the preceding 30 years was 29.95.

Thermometers. The mean *maximum* temperature was 43.1 degrees, as compared with 44.7 degrees the mean for the preceding 30 years. The mean *minimum* temperature was 34.4 degrees, being the same as the mean for the preceding 30 years.

Rainfall. Rain fell on 12 days to the total of 1.4 inches. The mean for the preceding 35 years was 2.15.

Wind. W. and S.W for the first eleven days, then chiefly E. for the remainder of the month.



RAINFALL, 1903.

MONTH.	Number of days on which rain fell in Richmond.		Total fall in inches.	
	1902	1903	Richmond 1903	London Mean for 1866-1900.
January	8	16	2.28	2.01
February	10	11	.91	1.69
March	10	19	2.12	1.49
April	10	10	1.82	1.65
May	22	16	3.64	1.69
June	17	11	6.54	1.93
July	10	12	4.17	2.27
August	21	18	3.49	2.30
September	8	14	3.06	2.21
October	19	28	5.19	2.70
November	13	12	1.51	2.29
December	13	12	1.40	2.15
TOTAL	161	179	36.13	24.38

The rainfall for the year in Richmond was 36.13 inches, as compared with 21.2 inches for 1902, 17.54 inches for 1901, and 21.16 inches for 1900. June, July, and October were the wettest months, there being only three days of the latter month when rain did not fall. In eleven days of rain during the month of June over six-and-a-half inches of rain fall were recorded.

There were 18 more days on which rain fell during the year 1903 than during 1902, and 65 more days than during the year 1901.

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

Medical Officer of Health.

TOWN HALL,

RICHMOND, SURREY.

February 12th, 1904.







