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**Surrey County Council.**

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**ANNUAL REPORT**

OF THE

**COUNTY MEDICAL OFFICER OF HEALTH**


INCLUDING

Reports to the Authorities of the United and  
Separate Sanitary Districts, 1893,

OF

**MEDICAL OFFICERS OF HEALTH**

**WITHIN THE COUNTY.**



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# ANNUAL REPORT

1900-1901

## COUNTY MEDICAL OFFICER OF HEALTH

LONDON :

Printed for the Surrey County Council by H. KEMSHEAD, Kennington, S.E.

# ANNUAL REPORT

OF THE

## COUNTY MEDICAL OFFICER OF HEALTH,

INCLUDING THE

### Reports to the Authorities of the United and Separate Sanitary Districts, 1893, &c.

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As the work which devolves on the Medical Officer of Health to the County Council tends to become interwoven with that of the Medical Officers of Health within the Administrative County, so the Annual Reports on the Public Health and Sanitary condition of the County as a whole, and of its component Districts separately, become naturally more closely allied.

This year the subjects reported on are for the sake of convenience and for ready reference taken in order, as follows :

1. Summarized statement of the work of the County Medical Officer of Health during the year 1893.
2. Changes in Official Appointments. District Reports. List of Medical Officers of Health.
3. County Death Rate and Statistics.
4. Working of the Notification Act.
5. Epidemic Diseases in the County.
6. Preventive Measures.
7. Progress made in Hospital Provision.
8. Housing of the Working Classes Act.
9. Improvements in House Sanitation and Lectures on Public Health.



10. Reports of Medical and other Officers on General Sanitary Conditions.
11. Progress made in Sewerage Schemes for the Prevention of River Pollution and the Improvement of the Public Health in the County.
12. Concluding Remarks.

# 1. SUMMARIZED STATEMENT OF THE WORK OF THE COUNTY MEDICAL OFFICER OF HEALTH.

This may be considered under four heads, (*a*) Advising and Conferring, (*b*) Inspecting, (*c*) Corresponding, (*d*) Reporting.

(*a*) CONFERENCES AND CONSULTATIONS.—Besides attending all Meetings of the Council and Committees to which I have been summoned, I have held 105 Consultations and Conferences with District Medical Officers. The first of these was on January 2nd, 1893, and related to an awkward question of Sewage disposal in the Epsom District in which Dr. Jacob had called me in. The greater number of Conferences or Consultations related to difficulties, which, under existing circumstances, are likely to arise in the working of the Notification Act. The source of these difficulties, and the nature of my advice, will be referred to under the proper heading. They occurred in eleven of the sixteen separate Sanitary Districts. Very important Consultations have been held with the Medical Officers concerned at various times during the year, with reference to outbreaks of the following Epidemic Diseases: *Cholera* (reported as Asiatic), with Drs. Mair, Shelswell, and Brushfield: *Small-pox*, with Drs. Sloman, Tanner, Hall, Parson, Pocklington, and Beale-Collins: *Diphtheria*, with Drs. Morton, Oldman, Adams, Lorimer, Lake, and Fussell: *Scarlet Fever*, with Drs. Woodforde, Lorimer, and Rowland.



Other important matters on which I have been consulted or conferred with, have related to Isolation Hospitals, their Establishment and Management, Questions of House Sanitation, Housing of the Working Classes, Sewage Disposal, and River Pollution. These Consultations or Conferences were in the following Urban and Rural Districts.

URBAN.	RURAL.
—	—
Sutton.	Guildford (Shere & Albury).
Epsom.	Epsom (Leatherhead).
Carshalton.	Dorking (Abinger).
Reigate.	Farnham (Frimley, Alder-
Guildford.	shot, &c.)
Godalming.	Hambleton (Cranleigh,
Kingston.	Bramley, Haslemere, &c.)
Surbiton.	Kingston (Robin Hood, &c.)
Wimbledon.	Godstone (Oxted, &c.)
Barnes.	Windsor (Sandpits, Egham
Richmond.	&c.)

(b) INSPECTION.—This has related partly to the foregoing Official Duties and partly to Sources of Water Supply and the Purification of Rivers. The Inspection at Leatherhead, 1893 (like those at Surbiton in 1892 and Esher in 1891), related also to the General Sanitary condition of the place about which I am prepared to give evidence, if necessary. I have also made Inspections and taken note of the Slaughterhouse provision in the town and neighbourhood of Guildford with reference to the supervision of meat supplies and public health requirements generally.

(c) CORRESPONDENCE.—This includes all the letters written by the County Medical Officer on questions large and small relating to Public Health. A certain proportion of these are in answer to

letters marked "Private," referring to outbreaks of infectious illness and other matters, respecting which too much publicity is not desirable. The most urgent summonses received—as for example, those relating to the occurrence of Asiatic Cholera have necessitated telegraphic communication.

(d) REPORTING.—This includes the Special Reports in the Quarterly Volumes of the Council. The Report which was published in May, 1893, and entitled "Health Report," 1892, included a "Statistical Review" for the years 1889-92, and involved a great deal of care and thought in its preparation. It is hoped that this publication will prove valuable for reference.

A considerable part of the Work of Reporting has consisted in numerous written and verbal communications, "Interim Reports" to the Chairman of the Sanitary Committee.

## 2. CHANGES IN OFFICIAL APPOINTMENTS, &c.

The Report for 1892 contained a full account of the Sanitary Medical Service in the County. On this occasion I have merely to state that three changes have taken place in 1893, and that the Rural Districts of Croydon and Guildford and the Urban District of Kingston now have different Medical Officers. In the first-named District the prevailing system (which I cannot think is the best) has been abandoned in favour of the "whole service" system. This system was apparently adopted tentatively, but so well has it answered, and so excellent has been the Administrative Work of the Medical Officer of Health, that, as I gather from the published reports, the Authority has resolved, with the consent of H. M. Local Government Board, to place the present appointment on a footing that will be likely to ensure its permanent and progressive usefulness. In the latter Districts, viz.: Guildford Rural and Kingston, appointments of a different kind have been made, "whole service" not being stipulated for. Under these



conditions the Medical Officer of Health for Guildford R. S. D, has, he informs me, recently been appointed Medical Officer to the Guildford and Godalming Joint Hospital Board.

With regard to the District Reports, I have again to thank my colleague, Dr. Jacob, and the several Medical Officers of Health, for the exertions they have made to facilitate the production of this Report at a comparatively early date.\* At present the only Report wanting is that of the Epsom Rural District, and in that case through the courtesy of the Medical Officer, I have been favoured in advance with an important part of it, viz. : that which contains the Returns of Mortality and Sickness. Surrey is, I believe, the only County in England in which complete information as to its health and sanitary condition is available so soon after the close of the year, to which the County Report refers.

With regard to the character of the Report and their classification, I have little to add to what I said in the "Health Report for 1892." On this occasion it is sufficient to say that, in my opinion, there is progressive improvement in the character of the Reports as a whole. Although several of the Reports are still open to the criticism it was my duty to make last year, there is an increasing proportion of those which indicate unmistakably a considerable advance in public opinion in favour of preventive medical work. Among the Reports which indicate special care and thought in its preparation is that of the Medical Officer of Health for the Godstone Rural Sanitary District (Dr. Oldman). The passages relating to the prevention of Influenza and Diphtheria are reproduced in this Report.

With regard to the Reports of the newly appointed Medical Officers of Health, it is my duty to refer especially to that of the

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\* I have also to thank Dr. Barton, of the Brookwood County Asylum, for his kind assistance in affording me opportunity of making necessary corrections for deaths at that Institution belonging to various districts in the County.



Medical Officer of Health for the Croydon Rural District (Dr. L. Darra Mair, D.P.H.), as showing excellent Public Health administrative work which is greatly to the credit of the Authority concerned; also to that of the Medical Officer of Health for the Borough of Kingston-on-Thames (Mr. H. Beale Collins, D.P.H.), which contains much valuable advice on questions affecting the Public Health. The Report of the Medical Officer of Health for the Guildford R.S.D. (Mr. W. Wellington Lake, D.P.H.), is drawn up on the well known and established lines of his predecessor. The Report of the Medical Officer of Health of the Hambledon Rural District, (Dr. Hall, of Milford), seems to be much upon the same lines as those of his predecessor.

Most of the Reports are now printed, and several of them are issued in a convenient pamphlet form.

The following is a list of Medical Officers of Health in the County.

SURREY COUNTY COUNCIL.—Edward Seaton, M.D., The Limes, Clapham Common, S.W.

THE UNITED DISTRICTS.—E. L. Jacob, B.A. Lond.: M.R.C.S., L.S.A., 8, Altenburg Gardens, Clapham Common, S.W.

The United Districts include the following:—

URBAN.			RURAL.		
	Area (in acres).	Estima- ted Popu- lations for 1893.		Area (in acres).	Estima- ted Popu- lations for 1893.
Sutton .....	1900	15,160	Epsom..... ..	34,200	23,645
Epsom .....	4400	8,476	Chertsey .....	42,100	34,274
Carshalton...	3000	5,633	Dorking .....	39,200	10,430
Dorking .....	1400	7,274	Reigate .....	44,000	14,600
Reigate .....	6000	24,402			

The following are the separate Districts :—

DISTRICT.	Area in Acres.	Population.	Name, Qualifications, and Residence of Medical Officer of Health.
Farnham, Rural .....	35,700	19,383	J. A. Lorimer, L.R.C.P., M.R.C.S., Farnham.
Farnham, Urban .....	800	5,576	S. J. Sloman, L.R.C.P., M.R.C.S., Farnham.
Hambledon, Rural ...	60,200	19,042	Geo. Hall, M.D., &c., Milford, near Godalming.
Guildford, Urban .....	600	14,645	J. Morton, M.B., Lond., &c., Guildford.
Guildford, Rural .....	66,000	31,207	W. Wellington Lake, M.R.C.S., L.S.A., D.P.H.
Godalming, Urban ...		8,743	W. Parson, M.R.C.S., M. & L.S.A., Godalming.
Kingston, Rural .....	17,300	13,163	O. C. Gibbes, M.D., &c., D.P.H., Surbiton.
Kingston, Urban .....	1,100	28,454	H. Beale Collins, M.R.C.S., L.S.A., D.P.H., &c., Kingston.
Surbiton, Urban .....	1,000	10,271	M. O. Coleman, M.D., &c., D.P.H., Surbiton.
Wimbledon, Urban ...	3,200	28,436	E. Pocklington, M.R.C.S., L.S.A., Wimbledon.
East Molesey, Urban...	700	5,047	J. J. Knox, M.A., M.B., Camb., East Molesey.
Ham, Urban .....	Included in Kingston Rural	1,412	J. Donald, M.R.C.S., L.S.A., Kingston.
New Malden, Urban...	Ditto	3,688	E. Child, M.R.C.S., L.S.A., New Malden.
Croydon, Rural .....	21,900	27,703	L. D. Mair, M.D., Lond., D.P.H., Croydon.
Godstone, Rural .....	44,000	17,273	C. E. Oldman, B.A., M.D., Camb., Betchingley.
Barnes, Urban .....	4,400	15,423	J. Adams, M.D., &c., Barnes, S.W.
Richmond, Urban .....		28,230	J. T. Rowland, M.D., &c., Petersham.

The above estimates of population include those of Public Institutions, and the areas are approximately correct.



### 3. COUNTY DEATH-RATE AND STATISTICS.

The carefully prepared Statistical Tables published in the Report for 1892, will, it is hoped, prove useful for some time to come as a standard of comparison. During the summer of 1893 the Table of Rates of mortality from Typhoid Fever in the several Urban and Rural Districts was, by direction of the Sanitary Committee, reprinted and circulated among the Authorities with a letter pointing out its special value as an index of the condition of their Districts in view of possible introduction of Cholera.

The County Death-rate for 1893 was 14·1 per 1000 persons living, being exactly the same as that of the 4 years, 1889-92, which may be referred to as the "Average." The diminished mortality from Influenza was, unfortunately, counter-balanced by an increase in that of the ordinary Zymotic Diseases, the Diphtheria Death-rate being much above the "Average." The mortality from Typhoid was also higher than the "Average," a certain proportion of the cases from which local outbreaks started having derived infection from visits to Worthing and other places where the disease prevailed. The Diarrhœa mortality was also high, owing to the unusually dry season.

The important Statistical Tables A and B (which have been verified and carefully revised, where needful, after correspondence or conference with the Medical Officers of Health) are appended hereto, as is also Dr. Jacob's exceptionally valuable Table of Death-rates for a long series of years.

The following are the Birth-rates and Death-rates in the Administrative County of Surrey for the year 1893, compared with the average of the four years 1889-92.

	Average four years 1889-92.		Year 1893.	
Birth-rate per 1000 living	...	26·2	...	25·6
Death-rate per 1000 living	...	14·1	...	14·1
Mortality of Infants under one year per 1000 Births	...	109	...	110



## WORKING OF THE NOTIFICATION ACT.

The Notification Infectious Diseases Act is now in force throughout the County of Surrey, the only district which had continued to remain outside the Operation Act, having in the year under notice ultimately decided to adopt it. It is unnecessary to recall the circumstances which finally brought about the event, but I must not fail to observe that the universal *voluntary* adoption of the Act gives great distinction to the County of Surrey, and is remarkable evidence of the influence of County opinion in matters affecting the Public Health.

It is not likely that the adoption of an Act which affects the relation of Medical Practitioners to their Patients, and to each other in no small degree, should be entirely free from friction at the first. It is, therefore, not surprising that a great deal of my attention has been required in deciding or advising on points of difficulty or dispute in which my special experience has been considered of value.

The questions on which I have been referred to have included the following, viz. : The specific nature of Choleraic Disease ; the Diagnosis of doubtful cases of Small-pox and other diseases ; the desirability or otherwise of publishing Notification returns ; the Official inter-communication of information respecting prevalent fectious diseases ; the Notification of Erysipelas ; the Notification of Measles ; the Notification of Phthisis ; the Notification of Influenza ; the Notification of cases of Throat illness at schools ; the circumstances under which a Medical Officer of Health may invite another Practitioner to "review a Diagnosis" in the case of Notifications respecting which differences of opinion have arisen.

I reserve for special report on a future occasion a description of the nature of the difficulties above-mentioned. I shall then

hope to have the opportunity of explaining fully the reasons which have influenced my action, which has always been with the object of removing misapprehensions and easing the working of the Act.

One of the important advantages to be derived from the Act is the information it affords of the progress and fatality of Epidemic Disease in the County. These records, kept year by year, may be expected to prove of great practical value from the preventive point of view,

The following Section of the Report is devoted to that part of the Reports of Dr. Jacob, and the 18 Medical Officers for the separate Districts which relates to this subject.

## EPIDEMIC DISEASES IN THE COUNTY.

### INFLUENZA.

It is disappointing that the Medical Officers of Health who are engaged in general practice have, as a rule, failed to make use of their special opportunities of observing the conditions which favour the spread of Influenza. Dr. Oldman, of Bletchingley, however, shows that there is no indifference or want of interest on his part in a matter which concerns the public health in an important degree. The following is his account of the Influenza at the Workhouse:

“The inmates of the workhouse, which is situated at Bletchingley, suffered very severely during November and December, five cases proving fatal.

The first known case was admitted from the Casual Ward into the Isolation Hospital on November 14th, after which another case appeared on November 27th, amongst the inmates (who were sleeping



(A)

**TABLE A (Urban).**  
TABLE OF DEATHS during the year 1893, in the Urban Sanitary Districts of Surrey; classified according to Diseases, Ages, and Localities, and showing also the Populations of such Localities, and the Births therein during the Year.

URBAN SANITARY DISTRICT.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SERVED AGES.								MORTALITY FROM SERVED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.																											
	Census, 1891.	Estimated to middle of 1893.		At all ages.	Under 1 year.	1 and under 3.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	Smallpox.	Scarlatina.	Diphtheria.	Meningitis.	FEBRILE.												Cholera.	Erysipelas.	Measles.	Whooping Cough.	Typhoid and Enteric.	Rheumatic Fever.	Ague.	Phthisis.	Consumption and Tuberculosis.	Heart Disease.	Injuries.	All other Diseases.	TOTAL.
															Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Forpatal.	Cholera.	Erysipelas.	Measles.	Whooping Cough.	Typhoid and Enteric.	Rheumatic Fever.	Ague.													
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.	31.	32.	33.	34.						
Farnham ...	5,545	5,570	177	82	16	11	1	3	27	24	Under 5 5 upwds.	...	...	1	1	...	...	1	...	...	1	...	1	3	...	2	...	...	...	5	10	9	...	2	15	27			
Guildford ...	14,316	14,645	380	230	46	31	20	6	73	54	Under 5 5 upwds.	...	...	12	...	...	...	1	...	...	...	...	2	1	...	7	...	...	...	23	16	17	3	...	3	45	77		
Godalming ...	8,117	8,743	234	126	21	6	8	7	48	36	Under 5 5 upwds.	...	...	1	2	...	...	2	...	...	...	...	1	...	...	...	...	...	...	15	16	12	2	...	1	18	27		
Dorking ...	7,132	7,274	166	111	9	9	6	8	40	39	Under 5 5 upwds.	...	...	1	...	...	...	...	...	...	...	...	1	...	3	1	...	...	...	10	20	5	...	...	...	56	93		
Epsom ...	8,417	8,476	204	130	31	9	6	4	44	36	Under 5 5 upwds.	...	...	1	4	...	...	1	...	...	...	...	2	...	1	...	2	1	6	...	...	7	1	...	...	18	40		
Sutton* ...	11,987	13,170	303	156	36	16	6	5	55	38	Under 5 5 upwds.	...	...	...	...	...	...	1	...	...	...	...	2	...	1	1	...	1	1	...	8	17	15	5	...	...	25	52	
Carshalton ...	5,425	5,633	158	78	14	11	3	4	23	23	Under 5 5 upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	4	...	...	...	5	8	...	1	...	...	11	25	
Kingston ...	27,059	28,454	828	530	114	63	22	25	197	109	Under 5 5 upwds.	...	...	3	19	5	...	...	...	...	...	...	1	...	8	26	...	...	...	42	68	46	14	...	...	82	177		
Wimbledon...	25,761	28,436	780	379	107	35	22	14	120	81	Under 5 5 upwds.	...	...	2	1	3	1	...	...	...	...	...	6	...	1	...	5	1	15	...	...	2	25	...	1	...	...	91	142
East Moulsey	4,666	5,047	131	65	8	2	2	7	26	20	Under 5 5 upwds.	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	11	10	4	1	...	...	6	10		
Ham .....	1,393	1,412	32	22	4	3	3	2	4	6	Under 5 5 upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	1	...	...	1	1	...	...	...	...	...	7		
New Malden	3,437	3,688	111	57	12	2	5	2	24	12	Under 5 5 upwds.	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	2	...	...	3	9	4	...	...	...	13	14		
Surbiton .....	10,052	10,271	186	128	15	8	4	3	57	41	Under 5 5 upwds.	...	...	2	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	6	20	19	5	...	...	...	16	23	
Reigate* .....	21,885	23,641	530	322	44	29	20	20	105	104	Under 5 5 upwds.	...	...	1	1	2	...	...	...	...	...	...	...	...	8	2	8	...	...	...	1	11	1	1	...	...	...	37	73
Richmond ...	26,875	28,280	632	431	81	36	17	13	145	139	Under 5 5 upwds.	...	...	2	4	1	...	...	...	...	...	...	...	...	2	9	8	...	...	...	...	30	...	4	...	...	57	117	
Barnes.....	14,673	15,423	412	260	54	39	26	15	76	50	Under 5 5 upwds.	...	...	1	19	1	...	...	...	...	...	...	...	1	...	4	...	...	...	1	22	1	...	...	...	43	93		
Totals ...	196,740	208,113	5,264	3,107	612	310	171	138	1,064	812	Under 5 5 upwds.	...	...	11	60	16	...	...	...	...	...	...	...	4	31	30	91	...	...	...	8	162	3	16	...	488	922		

\* For the purposes of this Table and Table B, the following Public Institutions are excluded from the Urban Sanitary Districts in which they are situated:—

The South Metropolitan District Schools from Sutton; Earlswood Asylum from Reigate.

† In estimating the populations shown in column 3 of Tables A, and used for calculating the rates in Tables B, allowance has been made, as follows, for certain other Public Institutions than those enumerated in Note \*:—The population of each Union Workhouse has been distributed proportionally among all the Sanitary areas in the Union; and the population of the County Lunatic Asylum in Guildford Rural District has been similarly distributed among all the Sanitary areas in the County.



TABLE B (Urban), 1893.—Density, Birth-rate, General Death-rate, Infant Mortality, Death-rates at various Ages, Death-rates from the principal Zymotic Diseases, and from Diseases of the Respiratory Organs.

URBAN SANITARY DISTRICT.	Persons per acre (estimated).	Birth-rate to 1000 persons living.	Death-rate to 1000 persons living.	Deaths of Infants under one year to 1000 Births.	DEATH-RATES TO 1000 LIVING.			DEATH-RATES TO 1000 LIVING AT ALL AGES.										
					At ages 1-15.	At ages 15-65.	At 65 years of Age and upwards.	Principal Zymotic Diseases.	Small- pox.	Measles.	Scarlet Fever.	Diphtheria.	Membranous Croup.	Whooping Cough.	Fever.	Diarrhoea and Dysentery.	Phthisis.	Respiratory Diseases.
Farnham ...	7.25	31.8	14.7	90	6.8	8.9	79.2	1.80	...	0.54	...	0.18	0.18	...	0.18	0.72	0.90	2.15
Guildford ...	24.25	25.9	15.7	121	11.7	8.6	75.9	2.80	0.20	0.14	...	1.71	...	...	0.07	0.68	1.57	1.57
Godalming ...	(?)	26.8	14.4	90	4.7	10.8	76.8	0.57	...	...	...	0.11	0.23	...	0.23	...	1.72	2.40
Dorking ...	5.40	22.8	15.3	54	6.9	10.7	84.2	0.82	...	0.41	...	0.27	...	0.14	...	...	1.37	3.02
Epsom ...	1.92	24.1	15.3	152	5.9	9.1	75.2	1.89	...	0.24	...	0.12	0.59	0.12	0.12	0.70	1.30	2.12
Sutton*	8.26	23.0	11.8	119	5.4	7.3	71.7	1.59	...	0.30	0.08	...	0.08	0.23	0.15	0.75	0.75	1.90
Carshalton ...	1.93	28.0	13.8	89	7.5	8.1	81.0	1.42	...	...	...	...	...	0.71	...	0.71	0.89	2.31
Kingston ...	25.92	29.1	18.6	138	9.5	12.7	84.3	2.64	0.04	...	0.25	0.81	0.21	0.28	0.07	0.98	1.51	3.51
Wimbledon ...	8.83	27.4	13.3	137	6.4	7.6	71.2	1.09	0.07	0.18	0.10	0.10	0.04	0.04	...	0.56	0.81	1.97
East Moulsey ...	6.46	26.0	12.9	61	2.7	10.4	80.0	0.59	...	...	...	...	...	0.89	...	0.20	2.18	2.38
Ham ...	9.61	22.7	15.6	125	12.2	7.3	83.3	4.96	...	4.25	...	...	...	...	...	0.71	2.12	2.83
New Malden ...	3.53	30.1	15.5	108	5.8	11.9	61.2	1.08	...	0.27	...	...	...	...	0.27	0.54	0.81	2.71
Surbiton ...	8.76	18.1	12.5	81	4.7	8.6	76.6	0.68	...	...	0.29	0.29	...	...	0.10	...	0.58	2.14
Reigate*	4.07	22.4	13.6	83	6.9	8.4	85.2	1.25	0.04	0.42	0.08	0.08	0.13	0.08	0.04	0.38	1.52	2.16
Richmond ...	(?)	22.4	15.3	128	7.2	8.5	88.5	1.10	...	0.07	0.07	0.18	0.04	0.32	0.04	0.38	0.85	2.76
Barnes ...	(?)	26.7	16.9	131	13.5	9.6	70.6	2.71	...	...	0.06	2.20	0.06	...	0.13	0.26	1.30	2.71
Total of above Districts	(?)	25.3	14.9	116	7.7	9.2	79.4	1.61	0.03	0.18	0.09	0.48	0.10	0.15	0.07	0.51	1.19	2.45

\* See foot note to Table A.

(A) **TABLE A (Rural).**  
**TABLE OF DEATHS** during the year 1893, in the Rural Sanitary Districts of SURREY, classified according to Diseases, Ages, and Localities, and showing also the Populations of such Localities, and the Births therein during the Year.

Populations of such Localities, and the Births therein during the year.																																						
RURAL SANITARY DISTRICT.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.								MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.																										
	Census, 1891.	Estimated to middle of 1893.†		At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.		Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	FEVER.					Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhoea and Dysentery.	Eclamptic Fever.	Ague.	Typhoid.	Bronchitis, Pneumonia, and Pleurisy.	Heart Disease.	Injuries.	All other Diseases.	Total.					
																Typhus.	Erysipelas or Typhoid.	Continued.	Relapsing.	Puerperal.																		
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.	31.	32.	33.	34.					
Farnham* ...	18,447	19,383	573	275	59	38	22	17	86	53	Under 5 upwds.	...	...	4	3	...	...	...	...	...	...	...	1	3	1	3	...	...	20	19	1	2	45	97				
Hambleton ...	18,428	19,042	486	216	35	13	12	9	60	87	Under 5 upwds.	2	...	3	...	...	...	...	...	...	...	...	1	...	...	2	...	...	21	24	30	8	34	168				
Guildford*†	28,981	29,644	834	375	69	43	37	20	114	92	Under 5 upwds.	...	1	14	1	...	...	...	...	...	...	...	1	...	...	3	4	...	37	30	27	10	127	263				
Chertsey .....	32,772	34,274	863	485	103	57	31	19	133	142	Under 5 upwds.	...	1	8	6	...	...	...	...	...	...	...	18	12	16	...	...	...	1	24	1	1	72	160				
Dorking .....	10,091	10,430	234	122	23	9	10	3	27	50	Under 5 upwds.	...	...	3	...	...	...	...	...	...	...	...	1	...	...	2	...	...	...	1	3	...	...	22	32			
Epsom* .....	19,514	20,754	494	282	62	27	16	11	73	91	Under 5 upwds.	...	2	5	5	...	...	...	...	...	...	...	...	8	8	3	...	...	...	2	15	1	2	38	89			
Kingston* ...	12,499	13,163	312	189	33	21	6	11	52	66	Under 5 upwds.	...	...	8	...	...	...	...	...	...	...	...	1	...	...	3	...	...	1	15	27	25	9	57	135			
Reigate .....	13,934	14,600	379	169	30	17	11	7	44	60	Under 5 upwds.	...	...	2	1	...	...	...	...	...	...	...	...	6	1	4	...	...	...	1	10	1	...	21	47			
Croydon* ...	26,013	27,703	760	405	106	42	29	9	115	104	Under 5 upwds.	...	2	...	...	...	...	...	...	...	...	...	1	...	7	19	18	...	...	...	...	31	4	3	64	148		
Godstone* ...	16,795	17,273	431	207	38	15	16	13	55	70	Under 5 upwds.	...	...	6	...	...	...	...	...	...	...	...	...	1	4	5	2	...	...	...	...	4	10	...	...	21	53	
East Grinstead*	3,204	3,308	77	50	10	5	8	4	11	12	Under 5 upwds.	...	...	4	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	4	1	...	11	15	
Windsor* ...	10,736	11,094	288	160	23	23	16	10	51	37	Under 5 upwds.	1	2	1	...	...	...	...	...	...	...	...	...	...	9	...	1	...	...	...	...	...	1	9	...	...	22	46
Totals ..	211,414	220,668	5,731	2,935	591	310	214	133	821	866	Under 5 upwds.	2	8	59	18	...	...	...	...	...	...	...	...	4	68	47	66	...	...	...	...	12	13	13	13	435	1,104	
											5 upwds.	2	14	61	5	...	£0	1	...	10	...	...	1	8	8	2	18	17	1	17	285	279	75	1000	20,203			

\* For the purposes of this Table and of Table B, certain Public Institutions and Parishes are excluded from the Sanitary Districts in which they are situated:—The Parish of Dockenfield (situate in Hampshire) excluded from Farnham; the Convict Prisons at Woking excluded from Guildford; Kensington and Chelsea District Workhouse Schools excluded from Epsom; Banstead Lunatic Asylum excluded from Epsom; Cane Hill Lunatic Asylum and Holborn District Workhouse and Schools excluded from Croydon; Caterham Imbecile Asylum excluded from Godstone. In East Grinstead District the Parish of Lingfield only is included in the Tables, the remainder of the District being in Sussex, and in Windsor District the parishes of Egham and Thorpe only are included, the remainder of the District being in Berkshire.

† See Foot Note † Table A Urban.

‡ The Parish of Woking was separated from Guildford Rural Sanitary District, and created a separate Urban Sanitary District, on 1st August, 1893; for the purposes of these Tables it is however included in the Rural Sanitary District.

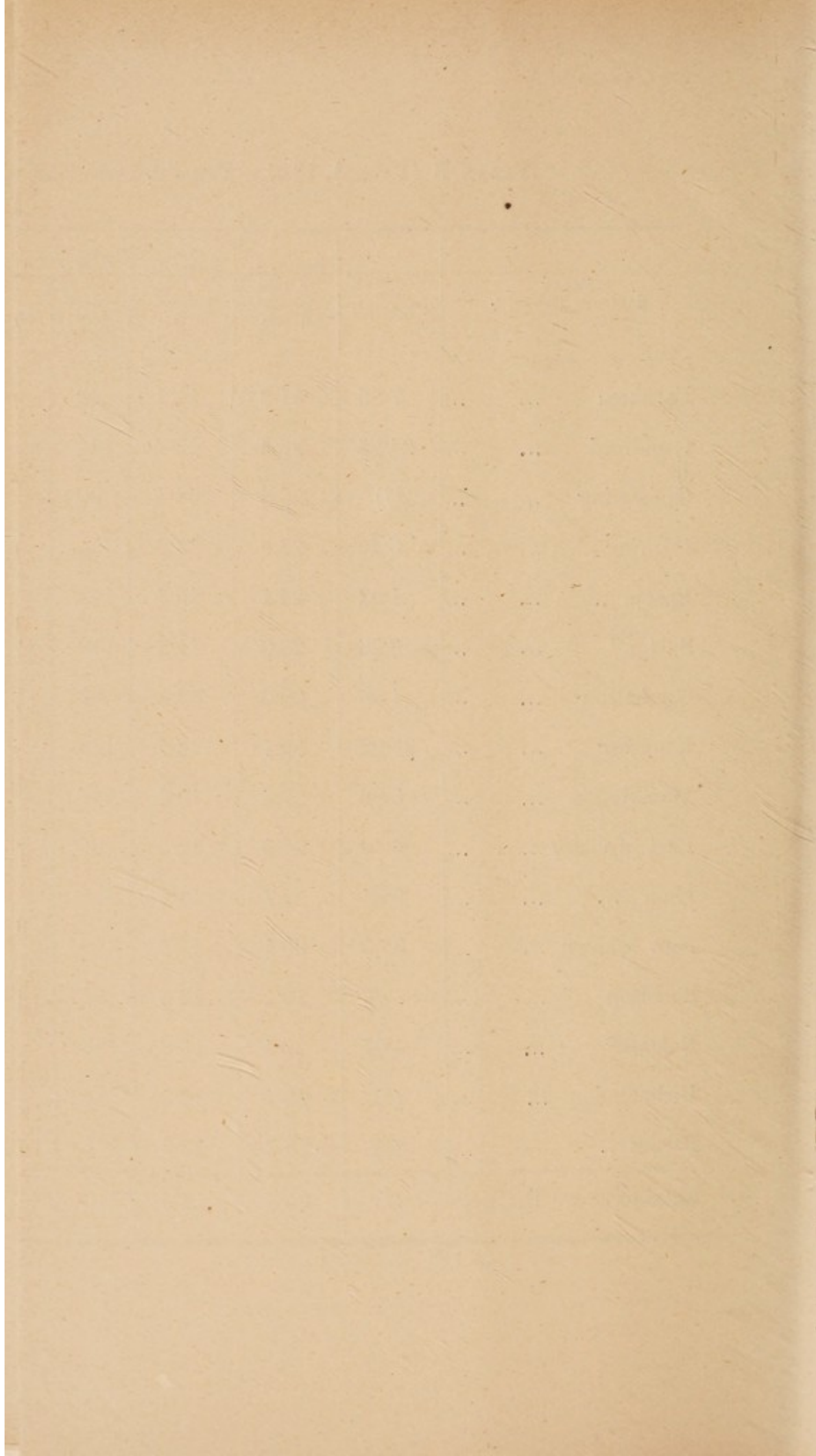
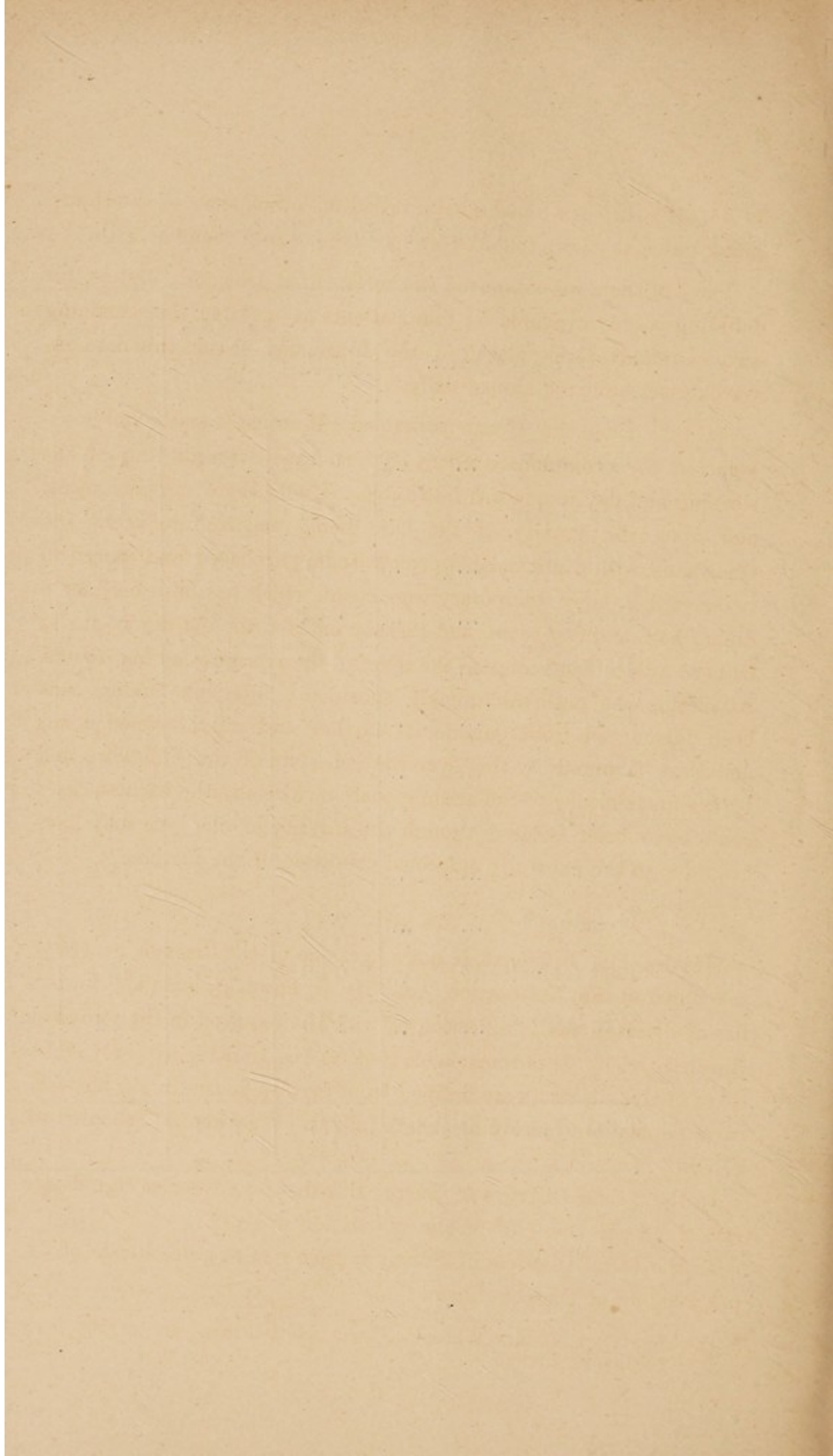




TABLE B (Rural) 1893.—Density, Birth-rate, General Death-rate, Infant Mortality, Death-rates at various Ages, Death-rates from the principal Zymotic Diseases, and from Diseases of the Respiratory Organs.

RURAL SANITARY DISTRICT.	Persons per acre (estimated).	Birth-rate to 1000 persons living.	Death-rate to 1000 persons living.	Deaths of Infants under one year to 1000 Births.	DEATH-RATES TO 1000 LIVING.			DEATH-RATES TO 1000 LIVING AT ALL AGES.										
					At ages 1-15.	At ages 15-65.	At 65 years of age and upwards.	Principal Zymotic Diseases.	Small- pox.	Measles.	Scarlet Fever.	Diphtheria.	Membranous Croup.	Whooping Cough.	Fever.	Diarrhoea and Dysentery.	Phthisis.	Respiratory Diseases.
Farnham* ... ..	0.54	29.6	14.2	103	9.0	9.2	53.5	2.58	0.05	0.88	...	0.72	0.15	0.05	0.21	0.52	1.03	2.06
Hambleton ... ..	0.31	25.5	11.3	72	4.1	6.1	75.0	0.84	0.10	...	...	0.32	0.05	...	0.21	0.16	1.10	1.73
Guildford* ... ..	(?)	28.1	12.7	83	7.9	7.8	57.9	1.82	...	0.03	0.07	1.11	0.10	0.03	0.14	0.34	1.25	1.52
Chertsey ... ..	0.81	25.2	14.2	119	7.7	7.5	80.1	2.33	...	0.58	0.06	0.38	0.20	0.38	0.15	0.58	0.96	2.30
Dorking ... ..	0.27	22.4	11.7	98	5.6	4.9	77.4	1.25	...	...	0.10	0.76	0.10	...	0.10	0.19	0.86	2.40
Epsom* ... ..	0.68	23.8	13.6	126	6.4	6.7	83.0	1.98	...	0.39	0.24	0.39	0.29	0.39	0.10	0.18	0.96	2.07
Kingston* ... ..	1.09	23.7	14.4	106	6.7	7.6	110.2	0.84	...	...	...	0.61	...	...	...	0.23	1.29	2.58
Reigate ... ..	0.33	26.0	11.6	79	5.7	6.0	79.4	1.38	...	0.48	...	0.14	0.07	0.07	0.14	0.48	0.89	1.51
Croydon* ... ..	1.34	27.4	14.6	139	7.1	7.8	85.0	2.23	...	0.25	0.22	0.14	...	0.72	0.25	0.65	1.01	2.64
Godstone* ... ..	0.44	25.0	12.0	88	5.6	6.5	76.1	1.85	...	0.23	0.06	0.92	...	0.29	0.12	0.23	0.98	1.16
East Grinstead* ...	0.36	23.3	15.1	130	11.6	7.9	58.5	2.11	...	0.30	...	1.21	0.30	...	...	0.30	1.21	0.60
Windsor* ... ..	1.19	26.0	14.4	80	11.1	9.0	73.3	2.07	0.09	0.99	0.45	0.36	...	...	...	0.18	0.90	1.98
Total of above Districts	(?)	26.0	13.3	103	7.1	7.3	75.4	1.84	0.02	0.34	0.10	0.54	0.10	0.22	0.14	0.38	1.04	1.98

\* See foot note to Table A.





in a ward which was much overcrowded in consequence of the House being unusually full), followed by four others on November 28th.

Three of them were removed to the Isolation Hospital. But as this building is only available for four patients at one time, the remaining two were unavoidably placed in the Infirmary. From this date onwards cases occurred almost daily.

At that time the House contained 143 inmates and is only constructed to accommodate about 100, so that overcrowding of the sleeping and day rooms was inevitable. Under these circumstances, and upon the gravity of the case being reported to them, the Guardians, with commendable promptitude, purchased and caused to be erected a large temporary iron room, which has been used as a dining hall and day room, and thereby enabled the old day rooms to be used as sleeping rooms to the relief of the overcrowded bed rooms. After this the outbreak quickly subsided. Infection having once been introduced from outside, its further and rapid extension was doubtless favoured by the overcrowded state of the buildings, and by the insufficiency of the accommodation, whereby the earliest cases could have been isolated, though the severity of the type may have been due to the naturally enfeebled condition of the victims."

### MEASLES.

Measles like Influenza is not as yet one of the diseases generally scheduled in the Notification Act. It is, however, included in the list of diseases, the Notification of which is required in the Croydon Rural District. It is remarkable that, as Dr. Mair reports, only eight cases of this disease were notified from private houses in six months, in a population (excluding the Holborn Workhouse Schools) of 27,703.

In the Urban Districts of Surrey this disease gave rise to a death rate of 18 per 100,000\* of the population in 1893.

In the Rural Districts of Surrey it gave rise to a death-rate of 34 per 100,000 of the population.

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\* The Figures for Measles, Whooping Cough, and Diarrhoea, are in proportion to 100,000 Population.



### WHOOPING COUGH.

In the Urban Districts of Surrey this disease gave rise to a death-rate of 15 per 100,000 of the population.

In the Rural Districts of Surrey it gave rise to a death-rate of 22 per 100,000 of the population.

### DIARRHŒA.

In the Urban Districts of Surrey this disease gave rise to a death-rate of 51 per 100,000 of the population.

In the Rural Districts of Surrey it gave rise to a death-rate of 38 per 100,000 of the population.

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I now proceed to give an account of the Notifiable Diseases in the following order: Cholera, Small-pox, Scarlet Fever, Diphtheria, and Membranous Croup, Enteric (Typhoid) and Continued Fever.

### CHOLERA.

Dr. Mair reports: "One case of Cholera occurred in Mitcham in September. I reported it fully to the Authority at the time, and an account of the case was also published in the "British Medical Journal."\* The case was fatal, and it will be recollected that although the case could not be connected with any previous case, in spite of careful enquiry by Dr. Seaton and myself, yet Dr. Klein, of the Local Government Board, found in the material that was sent to him, the particular kind of "*comma bacillus*," which is, at any rate, the invariable accompaniment of true Asiatic Cholera, and, so far as is known at present, of no other disease. Apart from Dr. Klein's statement, everything pointed to the case being one of ordinary "English Cholera," or "Cholera Nostras." Very vigorous measures were taken to prevent the spread of the disease, and it is a matter for congratulation that there is only one case to report."

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\* November 25th, 1893.



## SMALL-POX.

The chief feature in the history of the introduction and spread of Small-pox in 1893 in Surrey, as elsewhere, is the part played in the spread of the disease by the Vagrant Class. The introduction of Small-pox at some of the Workhouses was followed by serious results.

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*Wimbledon.*—Twenty-one cases were notified at Wimbledon, but there were no deaths. The first, was in February, an undertaker's assistant, who was infected at Kingston Workhouse. The case was taken to the Hospital. In May, cases occurred at Herbert Road and Denmark Road. In September, a case occurred at Wilton Road. In October, at the Durnford Road Hospital, in the case of a boy admitted three days before from Norman Road suffering from Scarlet Fever. This case gave rise to thirteen others among Scarlet Fever patients.

Two cases occurred in December in Alexandra Road.

*Richmond.*—Six cases notified at Richmond. Two were promptly removed to a Hospital; the other four successfully managed at home. All the cases occurred during June and September.

*Barnes.*—Two cases occurred. One took it from washing infected clothing, and this case gave rise to a second. Both cases were sent to Highgate.

*Kingston.*—Sixteen cases have been notified during the year, of which twelve occurred in the Workhouse. The cases outside the Workhouse were in Norbiton, and were isolated at home.

Two cases were admitted into the Isolation Hospital at Tolworth, one from *Hampton*, in the County of Middlesex, and one from *Surbiton*.

*Sutton.*—Cases reported as Chicken-pox in May were really mild Small-pox. Cases isolated at a cottage, Gander Green Lane. Further case in June.

*Epsom.* — Case April 7th, Church Street, contracted from unrecognized case. April 23rd, second case. Case at Workhouse, April 15th, a tramp. April 22nd, case admitted from South Street. May 10th, inmate under treatment in part of the Infirmary which adjoins "Separation Ward." May 15th, another Infirmary case. May 29th, Casual Ward case. These five Workhouse cases were removed to Highgate.

*Chertsey.*—One case imported from Reading in May.

*Egham and Thorpe.*—One death (under 5 years of age) returned from these districts which are included in Surrey.

*Farnham.*—One case was reported in June.

Two cases reported in the *Farnham Rural District*, one of these a parturient woman gave birth to an infant which was found to be suffering from Small-pox, which terminated fatally.

*Hambledon Workhouse.*—Eight cases with two deaths.

*Witley.*—One case, infection taken at the Hospital Ships, Longreach.

*Guildford.* — There were in all fourteen cases from January 21st to June 23rd. In ten cases infection was from a tramp in the Union Workhouse.

One case of supposed Small-pox was notified in the *Guildford Rural District*.

*Godalming.*—1st Quarter. Case removed to Guildford Workhouse.

*Dorking.* — January 21st, case admitted from a Common Lodging House in Church Street into Workhouse. January 25th, case from same place. March 18th, case from Falkland Gardens, caught when cleansing infected ward. March 19th, Workhouse nurse. April 16th, a boy aged 7, from Hart Road, the only unvaccinated one in a family of five children, The school he attended was close to the Common Lodging House.



One case from Leatherhead fell ill at Mickleham, March 30th. Re-vaccination. No spread.

*Reigate.*—On January 21st, a lodger in Nutley Lane admitted ill into the Receiving Ward of the Workhouse, died of Small-pox on the 30th. On February 14th, the undertaker who conducted her funeral failed with the disease. Infection from another source was introduced into the Workhouse which gave rise to a case on February 8th. On March 2nd, a third case occurred.

On February 12th, a resident near the Workhouse (70 yards N.E. of the infectious wards) fell ill of Small-pox. This case gave rise to two others among persons who refused re-vaccination.

On February 23rd, a case occurred at Chipstead, Reigate Rural (illness contracted in London), and was removed to the Workhouse at Redhill. On about February 28th, a case at Burstow was removed to Workhouse. Had been an inmate of the Workhouse, and may have contracted the disease there.

*Bletchingley.*—A case of Small-pox was admitted into the Casual Ward of the Workhouse, July 6th, and immediately isolated. Vaccination was performed upon all the inmates of the House where it was considered advisable (in 70 cases). The House was closed against visitors.

## SCARLET FEVER.

The remarkable facts are the mildness of the type of the disease (*vide* observations of Dr. Owen Coleman, of Surbiton, and others) and the consequently low rate of mortality from the disease in proportion to its extensive prevalence. The deaths were only in the proportion of 1 per 10,000 of the inhabitants. It is especially noteworthy that the Farnham Rural District (Dr. Lorimer's) stands among the best of the Rural Districts in the County, in respect of freedom from Scarlet Fever, as shown by the death rate.

*Wimbledon.*—Two hundred and ninety-four cases were notified, the greater number in the latter half of the year. The disease was very mild, and to this fact its spread was due, children being found at school and playing in the streets in the peeling stage. One hundred and sixty-six were treated at the Infectious Hospital, where 13 of them contracted Small-pox.

*Richmond.*—There were 126 cases at Richmond, the spread mainly attributable to want of Hospital accommodation. So far as the action of the Staff was concerned, the greatest care was exercised to limit channels of infection. No suspicion attached to milk supplies.

*Barnes.*—Sixty-three cases and one death.

*Kingston.*—Two hundred and seventy-seven cases have been notified during the year, of which seven only were fatal. The spread is attributed to the absence of Hospital accommodation.

At Thames Ditton, in August, September, and October; of a very mild character, diagnosis difficult. Further cases in November and December. In all 16 cases in 10 houses. Solitary cases at Weston Green, Thames Ditton, Winters Bridge, and Clump Meadows.

At Long Ditton, in second half of the year 14 cases in 12 houses, of which 9 were treated in Hospital: At the Rushett.

Esher West End. A case in February. On October 1, in High Street. In December, another in High Street.

At West Molesey, six cases during April-July.

At Hook, a case in April.

At Southborough, in August, two cases.

At Malden, in December, three cases.

*Ham.*—Three cases, two in one house.

*New Malden.*—Has been of a mild type. In August, two cases. In October, November and December, 21 cases. In all 20



households attacked. One of the sources of an outbreak is said to have been a milk supply.

*East Molesey*.—Thirty-four cases (starting from imported cases), spread due to want of Hospital accommodation.

*Surbiton*.—Ninety-four cases and three deaths. Dr. Coleman comments on the extensive dissemination and mild character of the epidemic.

Six deaths registered in the *Croydon Rural District*. Prevalent throughout. Morden and Woodmansterne alone free.

*Sutton*.—Excluding eight cases in the South Metropolitan District Schools, 63 cases were notified in 42 houses, and 49 of the sick were removed from 29 infected houses to the Isolation Buildings.

*Epsom*.—One case at Epsom Medical College, January 30th, followed by five others; in June, September, November, and December, six cases at Workhouse. All removed to the Temporary Hospital. Forty-three cases in 34 private houses, more than half in 4th quarter. None fatal.

*Carshalton*.—More prevalent than usual. Twenty-five cases in 16 houses. Seven in Mill Lane and adjoining streets, three of the sick removed to Sutton, and one to Wimbledon Local Board's Hospital. None fatal.

*Epsom Rural District*.—Five deaths were registered.

*Chertsey, Long Cross, Addlestone, Horsell, Windlesham, Weybridge, Hersham, and Walton*.—Altogether 190 cases in 120 houses, two deaths. Bisley the only Parish in Chertsey R.S.D. free.

*Windsor Rural District*.—Five deaths were registered.

*Farnham*.—36 cases were notified during the year. The epidemic reached its height in November, when 13 cases occurred. An instructive case occurred of spread at a school by a slight unrecognised case.

Farnham Parish, 18 cases; Frensham, 44 cases; Docketfield, 2 cases; Frimley, 37 cases; Ash, 3 cases; and Seale, 6 cases. Exceedingly mild type of disease. No deaths in the Farnham R.S.D.

The Villages in the *Hambleton* District, with the exception of Shalford, seem, from the Medical Officer's Report, to have been remarkably free. Bramley, 4 cases; Cranleigh, 1 case; Haslemere, 2 cases; St. Martha, 3 cases; Shalford, 12 cases; Witley, 2 cases; and Womersley, 4 cases.

*Guildford*.—There were in all 65 cases, distributed fairly evenly throughout the year.

Unusually prevalent in the Parishes of Shere, Stoke, Worplesdon, and Woking. A few cases in the Parishes of Albury, Merrow, Send, Ockham, St. Nicholas, East Horsley, West Horsley, and Godalming. Altogether 205 cases notified in 118 houses, disease of mild type, only two fatal. Sixty-nine cases removed to Isolation Hospital; the schools at Woking Station, St. John's, Woking, and at East Horsley, temporarily closed. In April, the business of the Post Office at Pitch Place, Worplesdon, was temporarily transferred to another house in consequence of the appearance of Scarlet Fever in the Postmaster's family. Of 30 cases notified in Godalming Parish, 19 occurred in King Edward IV.'s School, at Witley. The spread of the disease throughout the Guildford R.S.D. was materially promoted by means of slight and un-recognised cases.

*Dorking*.—Nine cases in eight houses, none fatal.

At Ockley, in January, a milk outbreak, subsequent spread owing apparently to want of Hospital.

Seventy-nine cases in whole district in 38 houses—one fatal. Illnesses in many cases slight and unrecognised.

*Reigate*.—Was unusually prevalent during nearly the whole year, 132 cases (with two deaths) occurring in 93 private houses, 90 cases (with two deaths) occurring in Earlswood Asylum, and nine cases in the Workhouse.



In January and February there was some suspicion that a certain milk supply was responsible for an outbreak, but how the milk became infective was not discernible. On three occasions, certain schools appeared to be the means of spreading the disease, and in July, the Lidlow School was closed for a month for that reason.

Was unusually prevalent, especially at Betchworth, Horley, Merstham, and Burstow. Altogether, 82 cases were notified in 46 houses, and 49 cases were removed to the Authority's Hospital. None of the illnesses ended fatally. The Public Elementary Schools at Gatton, Betchworth, and Lidlow were temporarily closed.

*Caterham.*—One death occurred.

## DIPHTHERIA.

### INCLUDING MEMBRANOUS CROUP.

Diphtheria is the most serious item in the Zymotic Death-rate. It amounted to 5 deaths per 10,000 of the population. The Rural Districts, with Death-rates of over 8 per 10,000, were Guildford (11), Lingfield (12), Godstone (9). The Urban Districts, with Death-rates over 8 per 10,000, were Barnes (22), Guildford (17), Kingston (8) \*

The apparent ratio of mortality cases notified varies considerably, but it cannot at present, as I have pointed out, be regarded as an index of variations in the type of disease. It must rather be considered an indication of the varying conditions of sanitary administration in several Districts. This explains the apparent anomalies in the comparison of Attack-rates and Death-rates in areas of different sanitary administration.

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*Wimbledon.*—Thirty-seven cases were notified at Wimbledon, and three proved fatal. At nearly all the houses the drains were found in a "deplorable state."

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\* N.B.—The figures for Scarlet Fever and Diphtheria are in proportion to 10,000 of the Population.

*Richmond*.—Fifteen cases were notified.

*Barnes*.—One hundred and fifty-nine cases were notified (32 deaths). They were mostly in the early summer, and necessitated the closure of Schools by Dr. Adam's advice.

*Ham*.—One case, fatal, in a young lady who was on a visit to Ham, and who had probably taken the infection elsewhere. The house where the case occurred was examined by Dr. Donald, who found nothing wrong.

*East Molesey*.—One case only notified.

*New Malden*.—The first case occurred in Derby Villas and was removed to the Tolworth Hospital. The rest occurred during the last quarter of the year.

*Kingston*.—127 cases, together with cases of Infectious Sore Throat, discovered by Dr. Beale Collins by visiting absentee scholars. A large number of the cases occurred either in the neighbourhood of the Hogg's Mill stream or in the course of the old Latchmere brook.

At Long Ditton, cases notified in June and following months :—

At Esher, in May.

At West Molesey, a case in August.

At Hook, a case in October.

At Kingston Hill, a case in May.

At Southborough, one in November.

At Vale Road, four in December.

*Surbiton*.—23 cases in 19 houses. Three deaths. Four cases occurred in one House, the first being imported and the spread of the disease being due to insufficient isolation.

*Croydon Rural* had a light mortality as compared with the other Rural Districts in the County.



*Sutton*.—Two cases (preceded by sore throats) occurred in July, one at Beulah Road. In October, one in Carshalton Road, in October, one case of croup, Benhill Street.

*Carshalton* was exceptionally free.

*Epsom*.—February, one, East Street, and one, Woodcote; March, one at cottage in East Street; July, one on the common; one in South Street; September, one on the common; November, one in South Street. Only one case in each house, and no special sanitary defects.

*Epsom Rural* had a death-rate rather below the average of the Rural Districts.

*Chertsey*.—14 cases in eight houses. One death.

*Addlestone, New Ham and Ottersham*.—18 cases in 16 (?) houses. Six deaths.

*Chobham*.—10 cases in eight (?) houses. One death.

*Horsell*.—Seven cases in seven houses. Two deaths.

*Bagshot*.—16 cases in 12 houses. Two deaths.

*Windlesham*.—Three cases in three houses.

*Weybridge*.—Four cases in four houses. One death.

*Hersham and Walton*.—10 cases in 10 houses. Six deaths.

Altogether, including Membranous Croup with Diphtheria, there appears to have been in the whole Chertsey Rural District 82 cases and 19 deaths.

*Egham and Thorpe* had a death-rate rather below the average of the Rural Districts.

*Farnham*.—Thirteen cases were notified. They occurred in 11 houses, eight of which were in a bad sanitary condition from want of proper water supply and drainage.

*Farnham Parish*.—13 cases. Four deaths.

*Frensham*.—Five cases. One death.

*Dockenfield*.—One case.

*Frimley*.—Seven cases.

*Ash*.—35 cases. Six deaths.

*Seale*.—One case.

Altogether in the Farnham Rural District there would appear to have been 62 cases and 11 deaths, but the whole number of deaths from Diphtheria and Membranous Croup belonging to the District were not less than 17.

Bramley, one case; Cranleigh, 11 cases, mostly at the Surrey County School; Ewhurst, two cases; Haslemere, two cases; St. Martha, two cases; Shalford, three cases; Witley, five cases. Altogether there were 26 cases reported. Six deaths from Diphtheria and one from Membranous Croup, or seven in all.

*Guildford*.—Diphtheria was specially prevalent, more so than it has been for the last 27 years. The cases, 139 in number (19 deaths), occurred as follows: In January, 9; February, 7; March, 9; April, 7; May, 8; June, 16; July, 16; August, 16; September, 7; October, 16; November, 14; and December, 14. Between the 28th of July and the 12th of August, a series of 12 cases occurred suddenly on one milk supply. The circumstances of the outbreak led to the conclusion that the milk was the cause of the outbreak. Schools exercised the predominant influence in the continuance of the cases, and Dr. Morton considers the cesspool system as a powerful factor in their origin.

During the first half of the year at Bell Fields, Stoughton Road, Slyfield Green, and the Parish of Stoke, 41 persons attacked in 31 houses.

At Pirbright five cases in one house, at Woking four cases in four houses, in Worplesdon eight cases in five houses, at Merrow three cases in three houses, at Ripley two cases in two houses, one at Albury, and one at Wanborough.



During the second half of the year the disease became suddenly epidemic at Stoughton, in the Parish of Stoke, as many as 15 fresh families having been attacked by the middle of July. The outbreak was connected with schools, which were closed by the advice of the Medical Officer of Health. Towards the close of the year the disease again appeared at some cottages near Stoughton Barracks, and the Board Schools were again closed a few days before the Christmas holidays. Altogether in the Parish during this portion of the year 72 cases were notified in 42 houses.

During this half of the year other cases notified were at Woking, three cases in three houses. At Pirbright ten cases in six houses, at Normandy and other parts of Worplesdon eleven cases in ten houses, at Compton four cases in two houses, one at Puttenham, one at West Clandon, one at Send, two cases in one house at Ockham, four cases in four houses in the Parish of St. Nicholas, and ten cases in eight houses at Merrow.

Altogether during the year in the entire district 283 cases (33 of which ended fatally) were notified in 127 houses, and 95 of the sick were removed to the Isolation Hospital.

*Dorking*.—Eleven cases in eight houses. April, in South Street; May, in Mill Lane; June, in High Street; September, in North Street; November, in Meadowbrook Road; North Street, two; South Street, one; December, two, South Street. In one house out of eight the drains were out of order.

Sixteen deaths were registered, of which 11 were at Oxted.

Ockley, January, one case, and two "throat illnesses" next door. Three cases in a cottage at Ockley Green, where a fatal case occurred in December, 1892.

Capel.—One case. In February, Capel, one case. Next five months, none. August 30th, September 4th, appeared in four cottages among school children. Infants School closed. September, two more cases. Boys and Girls School closed, not re-opened till

October 23rd. In meanwhile disinfected. There were 11 cases in five houses, four ending fatally.

Westcott.—In latter half of October cases of diphtheria and sore throats in five cottages.

National Schools closed till end of year. Disease only appeared in two fresh houses after, one of them a child attending Sunday School. Nine cases, three fatal in seven houses.

Capel.—In December, three fresh cases, two were children attending National School. One child in previously infected family.

Pixholme.—Case in December.

Thirty-one cases, eight fatal in 21 houses in district.

Membranous Croup.—October, one case fatal, Abinger Hammer.

*Reigate.* — In January, a case in Shrewsbury Road, February, two cases at Redhill, and one at Earlswood. In March, a case in Lesbourn Road; in April, one in Somers Road, and at Garden Row, Redhill. In May, one at Doods Road, one in Brighton Road, Redhill, and one in the London Road. In June, one in Glovers Road and another in Doods Road. In August, a case at Meadvale. In September, one in Monson Road, and in November, one in St. Mary's Road. It was impossible to establish any connection between these various cases, and except in two or three instances, no sanitary defects, to which they could have been attributed, were discovered at the infected premises. Altogether 15 cases, two of which were fatal, were heard of in 15 houses.

In January, a death took place from Membranous Croup in St. Mary's Road, and in the same month a case was reported from Hutchlands Road, Redhill. In March, two deaths from this disease occurred, one at Station Cottages, Redhill, and one at Meadvale.

*Reigate.* — Sixteen persons were attacked with this disease in 12 houses, viz.: in January, at Burstow, one case, and at Horley, two



(one of which was a recurring case in April). In May, a case at Horley. In July, one at Betchworth, and one at Nutfield. In September, two in Horley, and two in Leigh. In October, three in Horley, two at Betchworth, and in December, one at Buckland.

In the Godstone District, where Diphtheria prevailed, the Notification Act was not in force.

At Lingfield, four deaths were registered.

### ENTERIC (TYPHOID) FEVER.

The Districts which had comparative high death-rates from Enteric (Typhoid) Fever, were the Rural Districts of Farnham, Hambledon, and Croydon; the Urban Districts of Godalming and New Malden. Referring to the "Average" death-rates, as given in the Report for 1892, it will be seen that Godalming Urban and Hambledon Rural are both among the Districts with heavy Typhoid death-rates. It is plain, therefore, that they are in need of special attention as regards their water supply and drainage.

It will be observed that in most cases local insanitary conditions accounted for the occurrence and spread of the disease.

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*Wimbledon.*—Sixteen cases were notified without a death. Six were imported. There was evidence of polluted drinking water in three cases. Five were probably due to defective drainage.

*Richmond.*—Six cases were notified, and some were removed to the Richmond Hospital.

*Barnes.*—Two deaths recorded.

*East Molesey.*—Two cases, in one of which Dr. Knox, who was the Medical Officer of Health, found the drainage unsatisfactory.

*New Malden.*—One case following influenza. One at a home near an unhealthy swamp. One from London. One continued fever; may have arisen from an unclean cistern.

*Kingston*.—Seven cases were notified; including one contracted at Woking, and one following influenza. Two of the cases were fatal.

*Surbiton*.—Five cases (January 1st, November 1st, December 3rd). All on Surbiton Hill!

*Mitcham, Merton, Beddington, Coulsdon, Merton, and Wallington, in the Croydon Rural District*.—21 cases reported in latter half of the year, with four deaths. The total deaths in the whole year were seven, which at the same rate of mortality would give a total of 37. Owing to the change in official appointments, the actual number cannot be obtained for this Report.

*Sutton*.—January, 1, Poplar Cottages, Robinhood Street. April, 1, Montague Terrace, Collingwood Road (drains in bad order). June, 1, Western Road (drains in bad order). July, 1, High Street (drains in bad order). All drains re-laid, &c.

September and October, two cases contracted out of the district.

A *doubtful* case in Worcester Road, in December.

*Carshalton*.—Three cases reported, one in June, at a house in North Street (two drainage defects discovered). One in August, at a house in Sutton Grove, and one in October, at a house in Ringstead Road.

At Esher, in June and August, three cases from Guildford, Worthing and London.

At Kingston Hill, in August, one case.

*Epsom*.—October, one at Leith Cottages, East Street; during following two months three further cases. Removed to Hospital. Sewer blocked with roots of trees. Two in Providence Place, off East Street. Drains out of order. One doubtful case at Workhouse.

*Epsom Rural District*.—The death-rate was rather below the average of the Rural Districts in 1893.



Goosepool, Chertsey, one case in February ; at Addlestone, three cases in March and April ; Weybridge, one case, Bagshot, one case, Windlesham, one case, Oatlands, one case, in April ; Windlesham, one case, Chertsey, one case, in May ; Walton, three cases, New Ham, one case, in June ; Chertsey, one case, Weybridge, one case, in August ; Bagshot, one case in September ; Ottershaw, one case in October ; Hersham, one case, Chobham, one case, in November. Altogether in the Chertsey Rural District, 20 cases heard of in 20 houses. Five were imported. Four were fatal.

No deaths were recorded in Egham and Thorpe (Windsor R.S.D.)

*Farnham*.—Eleven cases were notified. Out of the 11 persons attacked, six drank pump water.

Farnham Parish, seven cases ; Frensham, three cases ; Ash, one case ; Seale, one case. Altogether in the Farnham R.S.D. 12 cases ; notified. Four deaths.

Aldfold, one case ; Bramley, two cases ; Cranleigh, two cases ; Haslemere, one case ; St. Martha, 1 case ; Witley, two cases ; Wonersh, one case. Altogether ten cases notified and four deaths recorded in the Hambledon R.S.D.

*Guildford*. — There were 20 cases, 13 of which originated in Guildford itself. The first cases occurred at the top of Bright Hill.

During the first half of the year three cases were notified, one each at Stoughton and Woking (both contracted outside the district), one near Witley Station. During the latter half of the year cases were notified in July at St. John's, Woking (the family had been drinking water from the Basingstoke Canal as their own well had run dry). In August, a doubtful case at Jacob's Well, Worplesdon ; in October, one at Slyfield Green, Stoke (water supply objectionable) ; one at Box Grove, Stoke ; one at Woking (contracted in America) ; in November, one at Ryder Hill, Worplesdon ; one in Stoughton Road, Stoke (polluted well water) ; one at Busbridge, near Godalming ; in

December, one at Shackleford near Godalming (sanitary arrangements defective); and two cases in a cottage at Ockham.

Altogether 14 cases (of which four ended fatally) were notified in 13 houses, six of the cases having been infected outside the district.

Of "doubtful continued fever," one case was reported at Ripley Village in June.

April 26th, a labourer living at Westcott, working at Abinger and Gomshall. June 8th, case at Mickleham, from another County.

*Reigate*.—In February, a case occurred in a cottage near Redhill Common (where the water-closet drain was stopped), and was followed by two others in the same house. Early in May, a case occurred in Chapel Road, Redhill, probably contracted at Worthing. The first week in June, three other members of the family fell ill with the disease, these attacks being due to the bad Sanitary Condition of the house which has been since altered. In August and September, two imported cases occurred. In December, three cases occurred in Shrewsbury Road, Redhill, Nutley Lane, an Insanitary house, and an imported case at Earlswood.

Was unusually prevalent. In July and August, three cases occurred at Horley. In August, a case occurred at Merstham from Worthing, and another at Nutfield Marsh. Two cases also occurred at Walton-on-the-Hill in August and September. A case also occurred at Burstow in September. In October, four cases occurred in Charlwood, and one case at Burstow. In November, two cases at Charlwood, and one at Merstham. In December, a case at Horley. Seventeen cases in all. In most cases, local conditions accounted for the occurrence and spread of the disease.

*Godstone Rural*.—Two deaths were registered, of which one was at the Barracks.

Appended to this section is the masterly and instructive Report by Dr. Oldman, of Bletchingley, on Diphtheria at Oxted.



*Diphtheria at Oxted.*

By C. E. OLDMAN, M.A., M.D. Cantab., Medical Officer of Health.

The first case occurred early in the year, during April, at the Rectory Lodge, and had, apparently, origin in the surroundings of the house. The small dip-well, from which the drinking water was derived, was much exposed to the danger of being contaminated with the dust and dirt from the ground in its vicinity, where numerous fowls were kept and had liberty to roam, being unprovided with a covering of any kind.

The school being closed for the Easter holidays, no risk of extension by that means existed, and no other case occurred, even in the family. The next case appeared in July, and was the commencement of a series, which ultimately assumed epidemic proportions and involved a number of deaths. The following is an abstract from a special report, made at the time, and fully describes the circumstances attending the outbreak :

"In consequence of the Notification Act not being in force in this district, some days elapsed after the first case occurred in the above outbreak, before I became acquainted with the fact that Diphtheria existed at Oxted at all, and then on July 5th, on my visiting the spot, to my surprise, I found it extensively prevalent and fresh cases occurring daily, so that it became an urgent question that immediate steps should be taken to arrest the progress of the epidemic.

"Finding on enquiry that the disease was at that time confined exclusively to children, and especially those attending the Infant School, I advised that it should be at once closed, which was done that day, and in consequence of fresh cases still occurring during the next two days, the large school was closed also. Although this step was productive of much inconvenience to the Master and Managers by reason of the proximity of the examination, upon the result of which the financial position of the school much depended, nevertheless, I am pleased to be able to commend to your notice the readiness with which both Managers and Master acquiesced in my views, and agreed to carry out any suggestions I might think proper to make.

"The first known case as regards date of illness of the series was that of a boy aged 7, living in a house amidst fairly good surroundings, and attending the Infant School, whom I will call A. He came home from school on June 23rd not feeling well, and as he was the subject of a chronic inflamed throat his mother kept him at home, but did not send for a doctor,



After being in bed one day and feeling better he was allowed to get up, and being at home doing nothing, his mother set him to nurse the baby. On June 30th, which was two or three days after he commenced doing so, the baby fell ill and was pronounced by a doctor to be suffering from Diphtheria, which proved fatal on July 4th, forming A (2) in the series—which suggests the probability that the illness of the brother who nursed him was also Diphtheria. No further mischief appears to have accrued from these two cases.

“In the interval, other cases occurred on June 24th, 25th, 28th, 29th, making B. C. D. and E. of the series, which showed no immediate connection with one another, except that they attended the Infant School, B. dying on July 6th, and C. on July 7th.

“From July 1st onwards, fresh cases were of daily occurrence until July 12th, making 29 in all up to that date, but some were doubtless contracted in the houses amongst the members of the families of the first cases and not due to school influence, inasmuch, as all children from infected houses were kept from school as soon as any member thereof was pronounced by a doctor to be so suffering. At this period, the closure of the school on July 5th, began to show its influence on the progress of the epidemic, with the result that one fresh case only, occurred on July 17th, and two on the 16th and 17th (the latter being traced to contagion probably conveyed direct by means of a toy which had been used by a convalescent from the disease), other than in houses previously containing a case.

“Now taking into consideration the salient features of the outbreak, the points which at once attract attention, are—

- 1st. That it was confined to children living widely apart.
- 2nd. The cases followed one another in quick succession, and at only two or three days' intervals, indicating probable infection by close or personal contact with each other, which in the case of children living at a distance, could probably only be effected by their meeting together for some common purpose such as
- 3rd. Attending School, and
- 4th. Being chiefly amongst children under nine years of age, probably therefore in
- 5th. The Infant School,

so that closing the school at once seemed likely to be of use in arresting



the progress of the epidemic, a suggestion which I have previously said was readily adopted.

“With a view to if possible ascertaining the source from which the epidemic arose, I visited the schools first and made a close inspection of them in company with the Sanitary Inspector. The sanitary arrangements consisted of three earth closets for the Infants and Girls, and two more, together with a urinal, for the Boys. These earth closets were defective, and being without the usual supply of earth, were offensive in consequence. They were, however, usually emptied at regular intervals by someone specially engaged for the purpose—who also flushed the urinal at the same time. The water supply was from a well from which a sample was taken, and on analysis proved to be unfit for drinking purposes. There being no lavatory, the drainage merely provided for the conveying of the rain water by pipes into a neighbouring ditch. These surroundings, though unsatisfactory and highly injurious to the health of the children frequenting the school and whose average attendance was about 160, would probably influence both schools alike, and would therefore scarcely justify the conclusion that they were the source of an outbreak of illness which affected exclusively the children in the Infant School; consequently, the probability arises, that the disease was imported from without, and that the influence of the school was merely instrumental in its propagation and extension. On comparing, too, the dates upon which the children fell ill with those of their attendance at school as marked in the register, it is to be noted that some were at school during the day, or part of it, upon which they afterwards fell ill, which in the case of an illness like Diphtheria, would mean that such children would be a source of infection to others during those school hours, extending even to the books, drinking cups, and other articles which they individually might make use of. Several children, too, were in the habit of bringing their dinner with them and remaining during that hour instead of going home, being provided with bottles of tea or other beverages. These bottles were frequently passed from one to another, and sometimes made use of by other children than their owners, for obtaining water from a pail provided for the purpose, wherewith to quench their thirst, thereby affording a ready means of conveying infection; and it is even reported that sometimes they drank from the pail direct, which would still further favour its transmission.

Pursuing my investigations outside the school boundaries, two possible sources presented themselves—



1st.—An accumulation of filth and sewage in a field close to the road and not far from the school, arising from the drainage of several houses in the village and immediately opposite the cottage where one of the earliest cases resided, marked C in the series. The parents of several of the children agreed in saying that this field formed a convenient playground for their children, and that they often came home complaining of the smells arising from this accumulation of sewerage, which being in close proximity to the road was also noticed by the teachers and others as they passed to and from school, particularly during the very hot weather. Here it was that case A, who, as I have previously mentioned, has a chronic inflamed throat, frequently stayed on his way home and played with his intimate friend C, who lived opposite, and being somewhat specially susceptible by reason of the condition of his throat may have contracted the disease there and conveyed it to his friend and others near him during school time. He also took his dinner to school and admits having frequently lent his drinking bottle to others, and was one of those who attended school during the day upon which he afterwards fell ill, and would be in an infectious condition probably.

2nd.—Enquiry into the circumstances attending the illness of the seventh case marked G in the series, shewed him to be living in one of the houses in the Station Road called Marsland Cottages, upon which I have on a former occasion been obliged to report unfavourably. A little boy, aged 6, who attended school on June 30th, was taken ill, and pronounced to be suffering from Diphtheria on July 2nd, which proved fatal on July 7th. For some days previous to this illness an older brother, aged 8, who also attended the Infant School had been ailing and not feeling well, but not sufficiently ill in the estimation of the parents to suggest their sending for the doctor. His mother, who was confined on June 14th, states that this general ailing of this boy commenced about a week after that date, by which she is able to fix it, but she still kept sending him to school, and the register shows that he did so attend with an occasional absence for half a day. He, however, became so far worse as to be in bed one day during the week ending June 30th, but got fairly well by the time his brother fell ill. There is little doubt but that he suffered from the disease, and his present condition shows it also by one very significant symptom, viz., absence of the patellar reflex, so that the inference is that he not only conveyed the disease to his younger brother but probably to other children during his attendance at school also, and this clearly early in the outbreak. Corroborative evidence of this view presents itself in the explanation of the following case which occurred later and amongst children attending an altogether



different school. In the station road there is an Institution called the Laleham Orphanage for Girls, which children are in the habit of attending Limpsfield School and not Oxted. One of these children fell ill and was pronounced to be suffering from Diphtheria on July 10th. It appears, however, that the Matron of this Orphanage is in the habit of holding a Sunday School in a room elsewhere in the Station Road, and that this boy was one who usually attended that school, and in fact did so attend on the last day upon which they met, viz., July 2nd; and further that this girl was specially deputed to sit near, and take charge of him during school time, which very plainly indicates the source of infection in her case and confirms the probability of his infectiousness. Reverting to this boy's home I find that so far back as March 31st, 1892, I reported to the Sanitary Authority on this block of Cottages as follows:—

“That closets drain in a cesspool with an overflow into a disused well without any ventilation. The larders are back to back with the closets, and though provided with flushing tanks they are defective and incompetent, admitting of the accumulation of soil in the pans.”

On the day of my last inspection (July 5th, 1893) they were in the same condition, and the water had been cut off from the flushing tanks altogether for some time past, the sink gully was full, and I was informed that during heavy rains the sewage frequently regurgitated and stood several inches deep around the gully. The cesspool is situated within 4 feet of the dwellings, and the rain water pipes simply lead into a hole in the ground and the water is allowed to soak away. Here then are surroundings decidedly favourable to the development of Diphtheria, and doubtless the prolonged dry season would materially enhance their influence by favouring the natural upward tendency of the ground air which would be mingled with the emanations arising from this saturated condition of subsoil. Evidence of this, too, is to be seen in the staining on the walls of the larder which I am told is even sometimes offensive in consequence. Milk and food kept under such circumstances would prove a fertile soil for the development of Diphtheria.

These two sources seem sufficient to account for the introduction of the illness amongst the children attending the Infant School and to be then propagated and distributed by that influence, so that closing the school proved an effective measure in arresting the further progress of the epidemic.

No further cases occurred until September, on the 18th of which the school was re-opened. On the assembling of the children, I attended and carefully examined their throats, in which my partner, Mr. Furber, kindly assisted me,



with a view to the rejection of any child we thought not well or who had any symptoms of throat illness, and although scarcely one in ten had a healthy throat, there were none that we could exclude as likely to develop Diphtheria. During the period in which the school was closed, a complete re-construction of the sanitary arrangements was carried out. The old earth closets were removed and a trough system with automatic flushing tank substituted. The well was abandoned and a new supply of water obtained from the Limpsfield and Oxted Company's mains, which were extended to the school for the purpose. Cases however, occurred subsequently, but they were apparently unconnected with school attendance, and were for the most part amongst members of families living in close proximity to houses where cases had occurred previously, or who had been brought into close contact with children who had previously suffered during the epidemic, but had apparently recovered. And as the power of infecting others persists in the throat of a sufferer from the disease for a variable period, it is possible these may have contracted their illness in that way. The total number of cases were 56, with 11 deaths, being a mortality of 19·6 per cent.

The sanitary condition of Oxted generally is one which would tend to favour the development of such a disease as Diphtheria or its recrudescence after being suppressed by energetic but temporary measures. There being no system of drainage, the houses are for the most part provided with ordinary privies, which are of a bad type of construction. Being made of wood with vault directly under the floor and seat, they are a source of danger to those using them, and although doubt has been cast upon the general opinion that Diphtheria has its origin in such like conditions of offensive excremental accumulations, still these act injuriously upon the health of the community by lowering their vitality and by developing throat illness which would render the subjects of it the more susceptible to the infection when presented to them and diminish their power of resistance to its invasion.

It has been said on authority that Diphtheria never attacks a healthy throat but one rendered unhealthy by previous illness.

The above conditions are eminently calculated to produce such an illness from time to time and thus indirectly produce the Diphtheria. The pail system would be a better substitute pending the completion of the drainage scheme which is in progress of being promulgated for Oxted in conjunction with Limpsfield, and specially for those cases which cannot by their position be embraced in it. The adoption of small pails would not be attended with much



expense, and being readily emptied would not prove a source of pollution to the general atmosphere as the present privies are.

The accumulation of filth and sewage matter in the field near the school alluded to above has been removed, and the drainage from the cottages improved. The defects also mentioned in connection with Marsland Cottages have been remedied.

### PREVENTIVE MEASURES.

Under this heading I propose to briefly recapitulate the chief preventive measures which are adopted in the County.

Obviously they must arise mainly from the information, advice, and action of the Medical Officer of Health of the district.

It is, perhaps, unnecessary for me to repeat the expression of my opinion of the value of Dr. Jacob's work in this respect. As to the extent of its influence on the prevalence of Epidemic Disease in the County it is of course in the nature of things impossible to gauge it accurately, but I apprehend there can be no reasonable doubt that it has been the means of saving many valuable lives.

It is with much pleasure also that I am able on this occasion to point to valuable work in the same direction by other Medical Officers of Health in the County. I may refer especially to the reports of Dr. Oldman, Godstone, R.S.A., Dr. Mair, D.P.H., Croydon, R.S.A., and Mr. Beale-Collins, D.P.H., Kingston U.S.A. This branch of Preventive Work may be considered under three headings: (1) General Precautionary Measures, including Disinfection, &c. (2) Inquiries respecting School influence in the development and spread of Epidemic Disease, and action taken. (3) Inquiries respecting Milk infection, and action taken. (4) Inquiries respecting Water infection or pollution, and action taken.

#### *General Precautionary Measures.*

The following account, which is taken from Dr. Jacob's Report on one of the United Group of Districts, summarizes the action which is generally taken to prevent the spread of Disease.



The houses infected with Small Pox, Scarlet Fever, Enteric Fever, Croup, or Diphtheria, were visited. In the case of Small Pox vaccination or re-vaccination was advised. Isolation of the sick was inculcated, and was assisted by the removal of fifty to the Authority's Hospital, and of five to the Workhouse. Disinfectants for use during illness were in most cases supplied and their proper use explained; the water supply, when suspected, was analysed; all nuisances and sanitary defects discovered upon the premises were remedied as far as was practicable; and, after the illnesses were over, notices to cleanse and disinfect the infected rooms and their contents were served in most instances. Many rooms were personally fumigated by the Inspector. At several houses infected articles were destroyed and compensation given under Sec. 121 of the P. H. Act, 1875. Infected articles were also removed from the houses of the poor and disinfected, at the cost of the Sanitary Authority, by Mr. R. F. Holloway, of Hackbridge, in his hot air chamber.

#### *School Precautions.*

Dr. Mair (Croydon Rural) makes the following remarks respecting school influence :

“The past year has been marked by the prevalence of Scarlet Fever nearly everywhere, and especially so in the Metropolitan Parishes. Situated as this district is, on the confines of these places, it is not surprising that infection has been several times conveyed from them into the district, and I find that the disease was imported 10 times, from London, or from Wimbledon, or Croydon.

The main agency which has kept up the prevalence of the disease in the district has been undoubtedly Schools, and altogether 83 cases were due, directly or indirectly, to infection from school. The type of the disease was very mild, and it was found repeatedly



that children had attended school until the appearance of the rash, while in some cases, owing to the indistinctness or partial character of the rash, the children had been allowed to return to school or play with their fellows, when, on examination, they were found to be peeling. Such cases were discovered in Mitcham and Wallington, and there were doubtless other cases which were not discovered at all. One school in Mitcham was closed about a week before the usual time, in July, owing to an outbreak affecting one particular class of scholars, namely, females between the ages of 10 and 13; but otherwise it was thought that the closure of any particular school would have led to no good result. Apart from the above outbreak, the disease affected all ages, and both sexes alike, and it was in connection with Mitcham only that this question had to be considered, and Mitcham is the parish above all the others where, if a school had been closed, the intercourse amongst the children would have been as great as if it had not been closed."

At Kingston, Mr. Beale-Collins has taken measures to improve the hygienic condition of schools. He reports as follows:—

"All the Public Schools, and several Private Schools, have been inspected, and such recommendations as I have made have been carried out, or are in progress. As regards the Elementary Schools, there was a deficiency in closet and lavatory accommodation, below the standard laid down in the code. In addition to this the Schools were all of them too full. Children, when learning, require plenty of light and air, expensive articles which the public must make up its mind to pay for if they wish the children to take full advantage of the education, and grow into healthy men and women.

The Grammar School has been thoroughly overhauled, and several Private Schools have been put into a better sanitary condition.

Now that the electric light is available, the question arises whether it would not be advisable to commence afternoon school somewhat later during the winter months, so that the scholars might get fresh air and exercise during the better part of the day."



Mr. Collins also makes suggestions as to the best means of preventing the development of Diphtheria at schools, which deserve the most careful consideration of the Corporation.

At Surbiton, Kingston Rural, Farnham and elsewhere, very active steps have been taken by the Medical Officers of Health to stop infection at Schools.

During the year the question of School closure has been under the consideration of almost every Medical Officer in the County.

The whole question of School Influence in the development and spread of disease has been very much under consideration, especially in the group of districts of which Guildford is the centre, and which includes Farnham, Guildford, and Hambledon Rural Districts. In this part of the County Diphtheria specially prevailed in 1893, and was the object of special inquiry by the Local Government Board. It is highly important that the best available means should be adopted for preventing its recurrence.

### *Precautions as to Milk Infection, &c.*

Dr. Jacob reports that at Ockley, where Scarlet Fever had been more or less prevalent during the latter half of the previous year, it broke out suddenly, in the middle of January, in six houses, in and near the village. The outbreak appeared to be attributable to infection of a portion of the milk which was supplied to these families from a local dairy, but it was doubtful *how* the milk had become infective. [Two explanations were thought of: —1, that a youth who helped to milk the cows, and who was apparently attacked *simultaneously* with the other sick persons, had really been attacked *before* them and had infected the milk; the other, that the milk of a recently calved cow, which was first distributed for human consumption two days before the outbreak, had somehow acquired infective properties. This cow, however, as also the other cows,



appeared to be perfectly healthy in all respects]. During the four following months, though the schools were kept closed, and all precautions were apparently being taken, *except the removal of the sick to an isolation hospital*, the disease spread to a few fresh houses in this and in the neighbouring parishes, and did not finally disappear till June.

Dr. Morton reports on a series of cases of Diphtheria at Guildford at the end of July and early in August, which he had good ground for attributing to milk. The source of the outbreak, however (which only accounted for a small proportion of all the cases in the town during the year 1893), was discernible with special difficulty by reason of the mass of cases probably due to other dominating influences.

Dr. Morton says: "Diphtheria was very prevalent, more so than it has been for the last twenty-seven years, and distributed throughout the year as follows:—

1 January	...	cases 9	...	Deaths none.
2 February	...	" 7	...	" 3
3 March	...	" 9	...	" 1
4 April	...	" 7	...	" 1
5 May	...	" 8	...	" 0
6 June	...	" 16	...	" 2
7 July	...	" 16	...	" 1
8 August	...	" 16	...	" 3
9 September	...	" 7	...	" 1
10 October	...	" 16	...	" 3
11 November	...	" 14	...	" 3
12 December	...	" 14	...	" 1

There was nothing remarkable in the distribution of the cases until between the 28th of July and the 12th of August, when it was found that 12 cases occurred on two small milk-walks supplied by the same farm. I enquired into this outbreak, and reported thereon.

The conclusion arrived at was, that, 'taking the sudden onset of the particular series of cases from July 28th to August 12th, their

occurrence in a part of the district usually free, their occurrence among large milk consumers, and being upon one small milk supply distributed by two dairymen, that the milk was the cause of the outbreak.'

The series of cases on the milk supply ceased suddenly, as soon as attention was drawn to it.

It is highly probable that Schools may have exercised a predominant influence in the continuance of the cases throughout the year in the town and neighbourhood, but it cannot be overlooked that the enormous number of cesspools in the district, leaking into the soil and poisoning the air, may be a very powerful factor in the origin of many cases."

Dr. Child, New Malden, reports on an outbreak which was attributable to milk. Dr. Coleman recalls the facts respecting the Surbiton diphtheria milk outbreak, which was cut short by his vigorous action. There are also numerous other references in the reports of Medical Officers of Health, showing that they have made inquiries in the case of suspicious outbreaks, and have in many instances advised precautionary measures which must have been very beneficial.

At the time of writing this report, an excellent illustration of the value of the Notification system, and the work of the Medical Officer of Health, is afforded by the recent Richmond Milk Epidemic, which was cut short by Dr. Rowland.

### *Precautions as to Water Infection, &c.*

A considerable proportion of the cases of Typhoid (Enteric) Fever were traced to well waters contaminated by the soakings of privies, drains and cesspools. The warning afforded by the Worthing Epidemic, and the reports of Cholera, led to much needed inquiries respecting water supplies in many parts of the County.<sup>1</sup>



On the other hand, it has to be recorded, with regret, that the water supply in part of Farnham Town so frequently reported on by the Medical Officer of Health, and which I know to be very bad and deficient, is still used for cottage property. Dr. Sloman connects the occurrence of Typhoid (Enteric) Fever with "this serious blot on the Sanitary Management of the District."

### PROGRESS IN HOSPITAL PROVISION.

At the meeting on February 14th, 1893, a special Report on the whole subject of Hospital Provision for the Isolation of Infectious Diseases, regarded from the County point of view, was before the Council, and the Report was extensively circulated among Authorities.

On December 21st, Lord Thring's Act received the Royal Assent, and it is hoped that it will ultimately prove of great benefit to the Public Health. Its operation must, however, to a large extent, depend upon the growth of public opinion in favour of the Isolation of Small-pox and Fevers, and a recognition of the fact that this is an essential part of our preventive system. Without the force of public opinion it will be impossible to overcome the opposition of those in whose neighbourhood the hospitals may be most suitably placed. So far as this opposition is founded on prejudice, it should be discouraged as much as possible by those who are responsible for promoting Sanitary Improvements.

Special attention was drawn in the Report, above mentioned, to the tendency on the part of some Local Authorities to behave as if any makeshift arrangement will do for an Isolation Hospital. They may have selected for the purpose an old house on the edge of a Sewage Farm, in which it is practically impossible to effectually separate cases of different infectious diseases, and where serious consequences have actually followed the attempt to treat cases of different



disease under the same roof. Under these circumstances, the plain duty of the Medical Officer of Health is to refuse his sanction to the use of the Building. It is needless for me to say more at present, as the subject has quite recently been under the notice of the Council, and as it is known that the Authority in question is earnestly desirous of effecting improvement in Hospital Accommodation. The subject, however, is extremely important as affecting the whole question of Notification and Hospital Isolation, and it should be present to the mind of every Medical Officer of Health within the County.

I cannot altogether be silent on the practice, which is still permitted, of sending cases from Rural Districts into Towns for Isolation! I observe this has been stopped by the Authorities of Croydon Borough, but it will be seen that cases of Small-pox are still allowed to be removed from distant country places in Surrey to the Small-pox Hospital at Highgate!

*Wimbledon.*—Dr. Pocklington refers specially in his Report to proposed Hospital Isolation, to the Scarlet Fever Epidemic, and the dangers of the existing Hospital.

*Proposed Isolation Hospital.*—Plans were prepared by the Surveyor for the proposed Isolation Hospital, containing two 12-bed pavilions, and one 10-bed pavilion, with two and three-bedded wards, together with the Administrative Block, to be erected on a site adjoining the present Hospital, Durnsford Road. The plans were laid before the Board on the 1st February, 1893, and approved, and the Local Government Board Enquiry, held by Dr. Deane Sweeting, on the 10th November, 1893. Subsequent to this the Local Government Board have required Mortuary, Laundry and Disinfecting Chambers to be added to the scheme similar to those originally proposed by the Surveyor. The Board are now awaiting the sanction of the Local Government Board for this scheme.



During the latter part of September, Scarlet Fever increased to such an extent that it was necessary to erect an additional Hospital Tent similar to that erected last year. The new tent (No. 2) is erected some 15 feet away from the old one. Several improvements have been made in the arrangements. The Lavatory Tent attached is larger (about 10 feet by 8 feet), both the walls and roofs being double. The floor under the closet, wash basin and bath of this tent has been concreted. The tent for the reception of patients is heated by a No. 3 self-contained saddle-boiler with two rows of four-inch cast-iron pipe. Both the Hospital Tents have been fitted with windows in the side, which provide sufficient light and add to the comfort of the patients, who are enabled to see what is going on outside.

The Board decided, on the 15th November, to erect without delay a Corrugated-Iron Hospital for the reception of Small-pox patients. It is much to be regretted that this building was erected in such haste, and that the details were not considered by the Surveyor. This building contains two wards, 26 feet 6 inches by 17 feet, separated from each other by a central portion, containing a nurses' room 11 feet by 11 feet, and a small ward 11 ft. by 12 feet. The outer ends of the larger wards communicate with small additions, containing a bath room, water-closet, and slop-sink. At a distance of nine feet from this Block a small Administrative Block is situated, containing kitchen, two bed rooms, wash-house, bath, water closet, and store.

It is to be regretted that the consideration of proper Hospital accommodation has been so far delayed as to necessitate temporary measures, which are most unsatisfactory, and occasion great anxiety on the part of those responsible for the buildings and the treatment of patients therein.

*Barnes.*—Dr. Adams regrets to say that the Hospital is not sufficient to cope with the large number of infectious cases that are brought under notice by the working of the Notification Act.



No less than 122, or exactly one-half of those notified were treated in the Hospital, and there were some urgent cases which could not be taken in from want of room, the difficulty was increased by the fact that epidemics of two different diseases were running at the same time, and there were at different times during the year more requiring admission of either disease than would fill all the beds.

He thinks the Hospital might be enlarged either by adding a new wing, or what would be better, would be to divert the footpath and take in the ground near the Mortuary, and erect a building which could be used for convalescents. The difficulty is in being obliged to keep the patients so long after they have recovered before they can be dismissed.

Details of the admission to the Hospital are given in the following table :

		Mortlake.	Barnes.	Added Area.	Total.
Scarlet Fever	...	9	30	15	54
Diphtheria...	...	47	21	0	68
		—	—	—	—
Total ...		56	51	15	122

The 54 cases of Scarlet Fever treated at the Hospital all recovered. One child admitted, who had suffered from an undetected attack of the disease, and was consequently not well cared for, and the disease was followed by rheumatic fever and heart disease. He was to have been taken into the Richmond Hospital, but in the interval of a bed becoming vacant it was discovered that he was desquamating. Dr. Adams was informed of the circumstances, and had him removed to the Hospital, where he died at the end of about two months from heart disease. Three other children from the same family were admitted to the Hospital with Scarlet Fever.

Of the 68 cases of Diphtheria admitted, 11 died. Some were admitted in a dying condition. Dr. Adams found it necessary to



perform tracheotomy in four cases, three of whom recovered, and one died.

*Tolworth Isolation Hospital.*—Dr. Gibbes reports that it has 13 male and 13 female beds, besides the cottage, which has two beds, and accommodation for a nurse. This is specially reserved for Small-pox patients, and without its use during the past year it would have been impossible to have managed the hospital satisfactorily, as several patients would have had to be refused, or Small-pox cases kept improperly isolated. This has been the busiest year since the opening of the hospital, the whole of the wards having been kept more or less continuously in use.

The number of cases under treatment during the past year was 116, 54 from the Kingston Rural District, 9 from Hampton, 52 from Surbiton, and one from New Malden. This last case was sent in by mistake, and the patient was too ill to be sent back.

Five deaths have taken place: one in a case of Diphtheria from Hook, and one, also from Diphtheria, from Kingston Extra Urban, three have occurred in patients admitted from Surbiton, viz., from Typhoid Fever, Scarlet Fever, and Diphtheria, 19 patients remained under treatment in the hospital at the end of the year,

*Croydon Rural.*—Dr. Mair reports that only 47 cases out of the 172 which occurred, or 27 per cent., were removed to hospital. During the four months, July to October, 35 per cent. were removed, while after October only 13 per cent. were removed. The reason for this difference is that after October, the Infirmary at the Croydon Workhouse was closed to all but pauper cases. Consequently, 25 cases were due to defective isolation at home, but to this number should be added several of those which are included amongst those deriving their infection indirectly from schools. Thirty-seven were sporadic cases, besides which there were six others which could not be traced satisfactorily.



There were eight cases, and possibly 12, which were caused by infection lingering about those discharged from Croydon Infirmary. Even in the best-managed hospitals, used only for isolation purposes, such unfortunate cases undoubtedly occur from time to time. The most striking example occurred in one house at Addington. A girl employed in Croydon went home ill, and was sent to the Infirmary. On her discharge three other children at her house took the disease within a few days; they were likewise removed, and two of them died. On the discharge of the surviving child two more at home became ill, and of these one also died.

Of the remaining three cases of this disease, two occurred in the house of a medical man, who was attending several cases at the time, and one derived the infection from "rags."

*Sutton, Carshalton, and Epsom Rural.*—Dr. Jacob reports that in March the Local Government Board issued their Provisional Order, forming this district and the Epsom Rural and Carshalton Urban Sanitary Districts into an United District, for the purpose of providing an Isolation Hospital for the joint use of persons residing in the United District, and the Order was in due course confirmed by Parliament. The Joint Hospital Board, on which the Authority of Sutton has five representatives, has since made a provisional agreement for the purchase of eight acres of land in the parish of Cuddington as a site for the joint Hospital, and has applied to the Local Government Board to sanction a loan for the purchase of the land. It has also received sketch-plans and estimates for the necessary buildings from Mr. Searles-Wood, F.R.I.B.A., but had not finally approved of them before the year closed.

Dr. Jacob's report for the Chertsey Rural Sanitary District, contains the following account of the New Hospital at *Ottershaw*:

By the middle of the year, the buildings for the new Isolation Hospital at Ottershaw were completed, and in August were brought



into use. Owing to the unusual prevalence of scarlet fever in the district, the wards were soon full of patients, and have remained so ever since. They consist of:—(a) an administrative block, with two sitting rooms, kitchen, scullery, store rooms, &c., on the ground and five bedrooms upstairs for the matron, nurses, and general servant; (b) a scarlet fever block containing two wards with accommodation for eight female and four male patients (to each of whom an air space of 2,000 cubic feet is allotted), a nurse's day room, bath room, closets and lavatories; (c) an "isolation block," in one-half of which are two wards with accommodation for six patients (having an equal cubic space per head), nurse's day room, and other offices, and in the other half are two wards capable of receiving four patients suffering from another disease, with similar day room and offices; (d) a block containing one of Washington Lyon's large steam disinfectors, wash-house and laundry; and (e) a block containing mortuary, ambulance shed and work shop. The cost of the buildings, the fences for enclosing the three acres which form the site, the water-pipes and cisterns, steam disinfectors, &c., was £4000.

*Guildford Joint Hospital.* — The Medical Officer for the Guildford Rural District reports that the houses infected with Scarlet Fever, Diphtheria, Erysipelas, Membranous Croup, Puerperal Fever, Doubtful Continued Fever, or Enteric Fever were visited; disinfectants were supplied and their proper use explained; isolation of the sick was inculcated and was, in many cases, secured by their removal to the Sanitary Authority's Isolation Hospital; nuisances, when found on the premises, were abated as far as was practicable; the well-water, when suspected, was analysed; and after the recovery, death, or removal of the sick, the final cleansing and disinfecting of the houses and articles were secured, the first stage of the disinfection, viz., that by sulphur-fumigation, having been performed at most of the cottages by the Sanitary Inspector. Infected articles were removed from most of



the houses, together with the Patients, and from many other houses after the illnesses were over and were disinfected by hot air at the Isolation Hospital; infected articles were also destroyed at several houses, and compensation was given.

The number of persons who were admitted into the Authority's Isolation Hospital during the year was 241, of whom 101 were suffering from Scarlet Fever, 17 from Small-pox, 3 from Enteric Fever, and 120 from Diphtheria. Of these, 53 were admitted from the Borough of Guildford (viz., 17 with Small-pox, 12 with Scarlet Fever, 23 with Diphtheria, and 1 with Enteric Fever), 10 were admitted from the Borough of Godalming (viz., 9 with Scarlet Fever and 1 with Enteric Fever), and 3 suffering from Diphtheria were admitted inadvertently from the Farnham Rural Sanitary District.

The number of persons who were admitted into the Hospital, and the number who died there in each year, since the Hospital was opened, with the nature of their illness, is shown in the following Table :—

From what District.	YEARS.	Small Pox.		Scarlatina.		Diphtheria.		Enteric Fever.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Guildford (Rural)	1885	3	..	..	..	..	..	..	..
	1886	2	1	4	..	2	..	..	..
	1887	..	..	25	1	8	1	5	3
	1888	..	..	14	2	4	..	7	2
	1889	..	..	54	1	3	2	11	5
	1890	..	..	18	..	5	..	9	..
	1891	..	..	12	..	14	4	2	1
	1892	..	..	31	1	19	2	2	..
	1893	..	..	80	..	94	33	1	..
Guildford (Urban)	1893	17	4	12	..	23	12	1	..
Godalming (Urban)	1893	..	..	9	..	..	..	1	..
Farnham (Rural)	1893	..	..	..	..	3	1	..	..



In March the Local Government Board caused an Inquiry to be held at Guildford, into the application of the Sanitary Authority of this District and those of the [Guildford Urban and Godalming Urban Districts, to form their Districts into an united District for the purpose of providing an Isolation Hospital for the joint use of persons residing in the united District, and shortly afterwards issued their Provisional Order, which was in due course confirmed by Act of Parliament. The Joint Hospital Board, on which the Guildford Rural District has five representatives, was then formed, and has since agreed as to the terms upon which the existing Hospital is to be purchased.

In the middle of the year the Sanitary Authority met the urgent demand for additional accommodation at the Hospital, by providing two of Messrs. Humphrey's temporary iron buildings for the reception of cases of Scarlet Fever and Diphtheria occurring in both cases.

The diseases which are notifiable in the district are all those scheduled in the Infectious Diseases (Notification) Act, 1889, and Measles, which was added to the list in July, 1890.

During the last six months of the year 351 cases of disease have been notified, of which 105 occurred in public institutions, and which, if deducted, leave a total of 246; or in other words, nearly one out of every 112 persons living suffered from notifiable infectious disease.

*Reigate Town.*—Dr. Jacob reports: As Small Pox appeared likely in February to spread extensively in the Borough, the Sanitary Authority, as promptly as the difficult question of site and other circumstances would permit, put up one of Humphrey's iron hospitals (with accommodation for twelve patients and the necessary offices, water supply, furniture, &c.) on an isolated plot of ground belonging to them near the southern boundary of the district, but it was fortunately not required for Small Pox patients.



And further on he says: In October, the Sanitary Authority decided to admit cases of Scarlet Fever or Diphtheria into the Hospital which they had provided, but had never used, for Small Pox patients, and three patients suffering from Scarlet Fever were afterwards removed into it from two houses at Redhill and from one at Reigate.

*Reigate Rural.*—Dr. Jacob gives a Table showing the number of cases which were admitted into the Sanitary Authority's Hospital in each month of the year 1893, and in the six preceding years.

Disease.	Jan.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total in 1893.
Scarlet Fever....	..	4	2	11	4	14	7	2	3	2	49
Diphtheria .....	1	..	..	..	..	..	..	..	..	..	1

In October the Sanitary Authority decided to erect a second Ward-block at their Isolation Hospital, so that two different kinds of disease might be treated there at the same time; and, after conferring with their Architect, and with the Local Government Board, they adopted plans for a pavilion containing wards for twelve patients, rooms for the nurses, bath-room, lavatory, and other offices; and applied to the Local Government Board to sanction a loan for the purpose. The Board intimated that they would hold a public enquiry into the matter, but the day had not been fixed before the year closed.

To the above record of the provision and working of Isolation Hospitals in the County, in 1893, it is only necessary to add that great efforts have been made on the part of Richmond to find a site. That Kingston has become alive to the need for Isolation Hospital provision, and that in the Districts of Hambledon, Godstone and Lingfield the matter has been under consideration.



## HOUSING OF THE WORKING CLASSES ACT.

By far the most important work which is done for the improvement of the Dwellings of the Working Classes in the County, is that which is reported on in the section of this Report relating to General Sanitary Conditions, which includes the improvements of Water Supply, Cleansing, and Drainage, as well as the Removal of Nuisances and the operation of Bye-Laws. The present section is reserved for the reports of special House to House inquiries.

*Dorking*.—Dr. Jacob reports : Proceedings under Secs. 30 and 32 of the Housing of the Working Classes Act, 1890.—In compliance with notice from the Sanitary Authority, 22 cottages in the district, which were in a dilapidated unwholesome condition, were repaired and made wholesome, making a total of 106 houses which were so dealt with during the three years, 1891-93.

*Carshalton*.—Dr. Jacob reports: A systematic inspection, or house-to-house visitation, of certain parts of the district which are most in need of it, including St. James's Road, St. John's Road, St. Andrew's Road, Levett's Rents, William Street, Harold Road, Wandle Mount, and West Street Lane, was made by the Inspector of Nuisances, and defects of closets, drainage, and dwellings were remedied as far as was practicable.

*Croydon Rural, Mitcham, Merton, &c.*—DWELLING HOUSES AND STREETS.\*—Bye-laws as to New Dwellings and Streets are in force in the parishes comprised in the drainage district, and they, in the main, are the same as the Model Bye-Laws issued by the Local Government Board.

A Committee was appointed in October to consider and report on the whole of the Bye-Laws in force in the district, and the Surveyor and myself presented detailed reports on the subject. As regards dwellings, as well as nearly all the other subjects on which bye-laws can be made, I would strongly urge the Authority to make them applicable to the whole of the district.

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\* This description is from Dr. Main's valuable Report.



The Surveyor furnishes the following return as regards streets and buildings in 1893 :

#### NEW BUILDINGS.

Plans for New Buildings submitted to the Authority	...	...	...	170
Of which were approved	...	...	...	83
Of which were disapproved	...	...	...	87
Amended, re-submitted, and approved	...	...	...	71
Plans for Additions to New Houses submitted and approved	...	...	...	11
Plans for Additions to Houses erected before the adoption of the bye-laws received	...	...	...	11
Of which was disapproved	...	...	...	1

#### NEW STREETS.

Plans for New Streets and Sewers submitted and approved	...	...	...	3
Streets made up, metalled, and kerbed under Sections 150, 151, and 152 of the Public Health Act	...	...	...	4
Of which have been declared Highways	...	...	...	2

NUISANCE ABATEMENT, ORDINARY SANITARY OPERATIONS, AND REPORTS OF INSPECTORS OF NUISANCES.—Since the latter part of last June, the two Inspectors of Nuisances have been under the immediate supervision and control of the Medical Officer. All reports made by them as to sanitary defects, and other matters which come under their notice, have been made through me to the Authority, and all remedial measures proposed to be carried out have been carefully examined by me before being recommended for adoption as the requirements of the Authority.

The various books and records required to be kept by the Inspectors have been regularly examined, and shortly after my appointment took effect, the "Daily Journals" were examined once a week, and the Inspectors were instructed to put on record in their journals, the time at which every inspection was made.

Inspections have frequently been made in company with the Inspectors, and reports, in writing, have often been required on specific matters. By these means he has been enabled to become intimately acquainted with the work being done by the Inspectors, and to generally guide and control their work, which plays such a very important part in the administration of the Public Health Acts.



Appended to this report, will be found a return embracing the work done by the Inspectors, during the whole of the year 1893, and showing, under various headings, what work has been done in each parish.

From this return it will be seen that 2206 "primary" inspections and 1729 re-inspections were made, or a total of 3935 in all. On the other hand, 169 complaints in writing were received. Resulting from these inspections, 296 legal notices were ordered to be served by the Authority for the removal of nuisances; and, besides these, 436 "preliminary" notices were served by the Inspectors, of which 267 were complied with, without further notice.

It will be seen that 345 drains were repaired, cleansed, trapped, &c., and 137 were ventilated. Since June, all drains which have been re-constructed or repaired, have had to undergo the "water-test" before being approved. This test is the only real test of the impermeability of a drain, and should be made compulsory in the future in the case of all new, as well as re-constructed drains.

Legal proceedings have been necessary on six occasions. The most important of these was the case against the Gipsies who encamp on a piece of land at Beddington Corner. Repeated complaints have been made concerning these Gipsies, for the encampment is very close to a large group of houses, and I reported in August, that in my opinion, they constituted a very dangerous nuisance. Proceedings were consequently taken against four Gipsies in the first instance, who were convicted, and a magistrate's order given to the effect that they were to go away and not to return. As the year closed proceedings were ordered to be taken against several more Gipsies.

OVERCROWDING HOUSES OF THE WORKING CLASSES AND COMMON LODGING HOUSES.—In order to become intimately acquainted with the dwellings of the working classes, a house-to-house inspection of Mitcham Parish was commenced towards the close of the year.



Owing to the extensive prevalence of infectious disease, not much time could be found available for this purpose. Fifty houses have been thoroughly examined in detail, and careful records made of the size and condition of rooms, the numbers and ages of the inhabitants, and of the sanitary arrangements and means of ventilation in existence. Soon after the beginning of the year, I hope to be able to continue this important work, and, I hope, extend it more rapidly.

Among the above houses, were five in a row, called "Piccadilly," he reported in December to be, in my opinion, unfit for human habitation, on the grounds of dampness of foundations, imperfect roofs, absence of 'through' ventilation, insufficient air space in front and behind, imperfect sanitary appliances, and imperfect water supply. At the close of the year a notice was served on the owner under Sec. 32 of the Housing of the Working Classes Act.

Besides these houses, three other houses were also condemned under this Act, namely: No. 3, East Cottages, Merton Rush, and two cottages in "Paddy's Bottom," in Sanderstead Parish. The former was put into thorough repair, while the latter was demolished.

There are no common lodging houses in the district. (*From Dr. Mair's Report.*)

*Worplesdon, Puttenham, Stoke, and Knaphill.*—Dr. Jacob and Mr. Lake report: 11 houses closed, several others repaired.

*Barnes.*—Dr. Adams and Mr. Gryll's report: Six houses in Barnes, known as "Paradise Row," were condemned as unfit for human habitation, and closed accordingly by order of the Magistrate presiding at the South Western Police Court. These houses have since been put in repair, new closets built, and the premises properly drained.

The sanitary condition of the "Model Cottages," East Sheen, has been improved by additional ventilation to the drains, and steps are being taken to provide a sufficient water supply by laying on the Company's water to the houses, twenty-six in all.



The houses in "Wright's Walk," Mortlake, have also been provided with the Company's water.

Improved ventilation has also been provided to the drains at "Prospect Place," Mortlake, and additional surface drains to the back yard.

The houses, Nos. 15 to 22, Brighton Place, Mortlake, are about to be put in a thorough state of repair. They are to be entirely new roofed with proper gutterings, stack-pipes, &c., and all decayed woodwork made good.

*Richmond.*—Dr. Rowland reports: Under the provisions of the Housing of the Working Classes Act, a proposal has been adopted by the Town Council, and land secured, for building cottages or dwellings suitable for that purpose: thus circumstances in the future will be more favourable when opportunity occurs for dealing with old and dilapidated houses.

## IMPROVEMENTS IN HOUSE SANITATION GENERALLY.

This subject, which includes that already dealt with, has received some attention, though not perhaps as much as its importance deserves, seeing that it immediately affects the health and comfort of visitors to, as well as residents in, the beautifully situated towns of Surrey.

During the months of February, March, and April it was arranged that I should give a few Lectures on this subject at Guildford and Richmond. In these Lectures I dealt with the following parts of the subject.

1. Illness caused by Bad House Sanitation. Distinguishing the kind of illness which may be said to have been proved to depend upon bad house sanitary arrangements from that in which the cause of the illness is still a matter of discussion by competent authorities, and in which the relation of disease to bad sanitary arrangements must be considered as still under observation.



2. The Principles of House Sanitation, which should be part of common knowledge at the present day.

3. Sanitary Law and Practice in relation to House Sanitation.

Unfortunately in all towns there exist a considerable proportion of very badly sanitated houses of the upper and middle class as well as of those let at weekly rents. It is one of the principal functions of a Medical Officer of Health for a town district, after having ascertained the facts as regards the sanitary condition of houses in his district, to set in motion powers, which, properly directed, will have the effect of steadily reducing the number of badly sanitated dwellings. This important work is going on at present in many large towns of England and in most of the places that claim to be Health Resorts.

The Reports for 1893 contain some interesting and important remarks on this subject; *vide* that of the Medical Officer of Health for Kingston and that of the Medical Officer of Health for Surbiton, his Seventeenth Annual Report. The subject is dealt with by these two gentlemen from somewhat different points of view. The Reports have been issued by the respective authorities in pamphlet form and will no doubt be widely read. The Medical Officer of Health for Surbiton recognizes the difficulties of the subject, but he takes care to make it understood that he is at the same time fully alive to the responsibility that devolves on him by virtue of his office. He promises a further Report very shortly.

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## GENERAL SANITARY CONDITIONS, &c.

THIS SECTION INCLUDES WATER SUPPLY AND CLEANSING OPERATIONS  
OTHER THAN THOSE INCLUDED IN SEWAGE DISPOSAL WORKS.

### *Dorking Urban.*

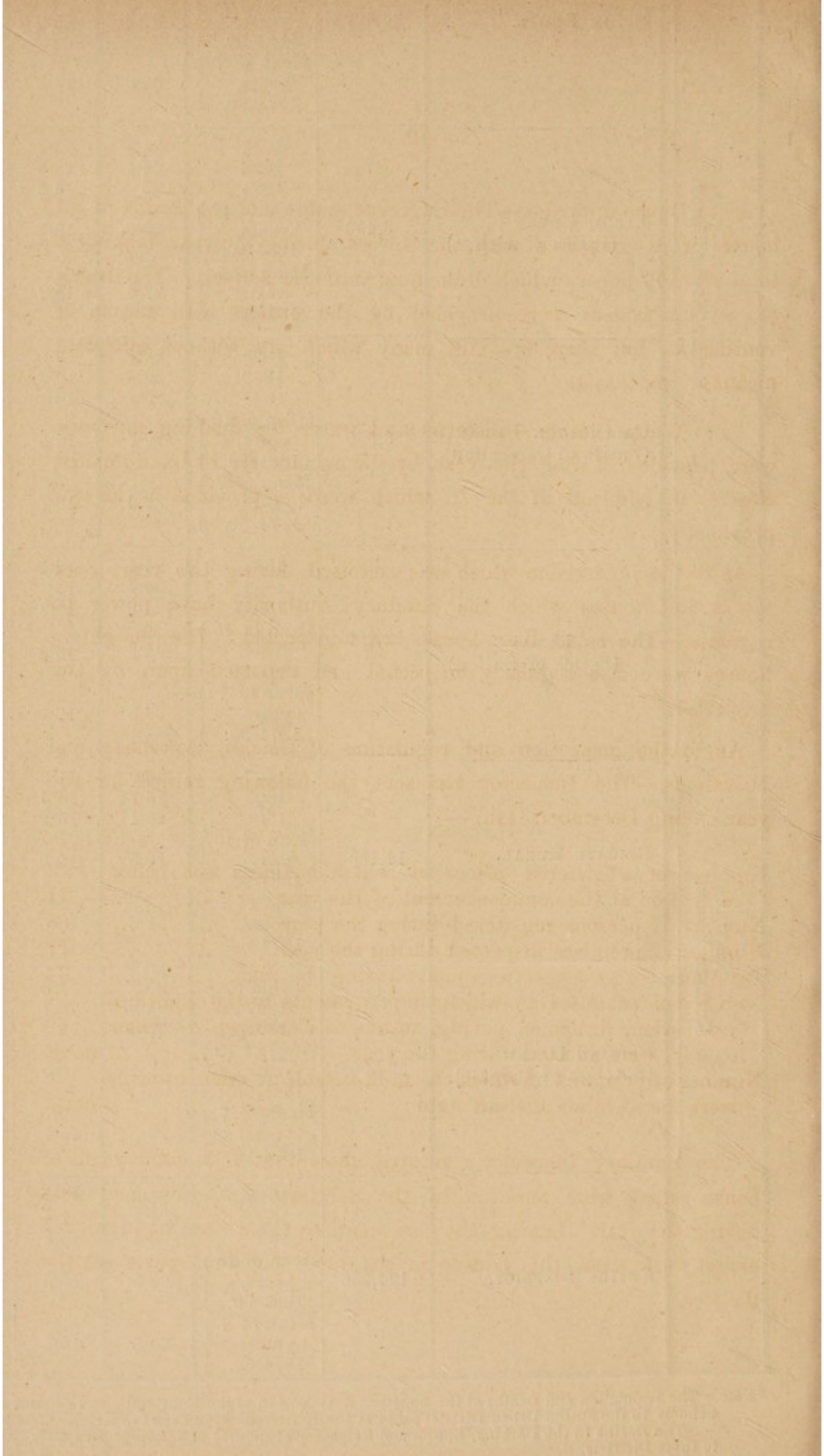
The Reports for Dr. Jacob's Districts precede the others which are generally given in order as received.



DR. JACOB'S TABLE FOR 1893.

Showing certain DEATH RATES, and the BIRTH RATES, in each Rural and Urban District of the Surrey Combined Sanitary District, during the years 1891, 1892 and 1893, with the average Rates of the Ten Years 1881-90, and of the Seven Years 1874-80.

ENTIRE UNION.	SANITARY DISTRICTS.	Estimated Population at middle of 1893.	Years.	BIRTHS. Rate per 1000 of the Population.	ANNUAL RATE OF MORTALITY. per 1000 of the Population, FROM				Per centage of Deaths under 1 Year to Registered Births.	YEARS.	Number of Deaths from						
					ALL CAUSES.	The 7 Principal Zymotic Diseases.	Pulmonary Consumption.	Other Lung Diseases.			Small Pox.	Measles.	Scarlatina.	Dysentery.	Whooping Cough.	Fever.	Diarrhoea.
ENTIRE DORKING UNION.	CHERTSEY RURAL (Entire Union).	33,700	1893	25.6	14	2.1	1	2.3	11	1893	20	12	12	13	6	20	
			1892	24.7	14.6	1	1.1	3.7	9½	1892	4	11	9	10	10	10	
			1891	27	15.5	1.2	1.2	3.1	12	1891	2	2	3	18	2	13	
			Mean of 10 years, 1881-90.	28.1	13.7	1.5	1.4	2.3	9½	1890	4	1	1	12	4	9	
			Mean of 7 years, 1874-80.	31.3	15.9	2.3	1.7	2.6	10½	1889	5	1	8	3	7	12	
										1888	10	4	8	5	6		
										1887	11	10	11	25			
										1886	13	4	5	10	11		
ENTIRE EPSOM UNION.	DORKING RURAL.	16,300	1893	22.7	11.8	1.1	.9	2.4	10	1893	1	8	1	1	2		
			1892	22.6	12.8	.8	1.1	3.3	7½	1892	2	1	4	1	1		
			1891	24	14.3	1.0	1.7	2.3	10½	1891	1	5	1	1	4		
			Mean of 10 years, 1881-90.	26.9	13.2	.7	1.1	2.1	8	1890	3	1	6	1	1		
			Mean of 7 years, 1874-80.	29.7	13.7	1.6	1.4	2.4	9½	1889	1	1	1	1	1		
										1888	1	1	1	1	1		
										1887	1	4	1	1	1		
										1886	6	5	1	1	3		
ENTIRE EPSOM UNION.	DORKING URBAN (Part of the Parish of Dorking).	7,250	1893	21.8	14.9	.83	1.2	2.9	5½	1893	3	2	1	1	1		
			1892	20.1	13	.28	.7	3	13	1892	1	1	1	1	1		
			1891	24.0	17.3	2.5	1.5	3	6½	1891	10	5	1	1	1		
			Mean of 10 years, 1881-90.	26.6	14.6	.9	1.6	2.4	9	1890	5	1	1	12	1		
			Mean of 7 years, 1874-80.	30.9	17.9	2	1.7	2.3	12½	1889	4	1	1	1	1		
										1888	1	1	1	1	1		
										1887	1	1	1	1	1		
										1886	1	1	1	1	1		
ENTIRE EPSOM UNION.	EPSOM RURAL.	20,000*	1893	24.7	13.8	1.7	.9	2.1	12½	1893	8	5	8	8	2	4	
			1892	25.6	13.5	1.3	1.4	2.9	8½	1892	2	16	6	1	1		
			1891	27.4	15	.9	1.1	3.3	9½	1891	5	4	5	2	1		
			Mean of 10 years, 1881-90.	27.8	13.6	1.3	1.3	2.6	8½	1890	2	11	5	1	1		
			Mean of 7 years, 1874-80.	32.2	15.8	2.1	1.4	2.1	11	1889	9	2	10	3	4		
										1888	3	1	114	5	6		
										1887	3	4	1	1	4		
										1886	1	2	6	1	10		
ENTIRE EPSOM UNION.	EPSOM URBAN (Parish of Epsom).	8,450	1893	24.4	14.3	1.4	1.3	2.1	15½	1893	2	1	1	1	1		
			1892	24.4	16.8	.8	.8	2	15	1892	1	2	3	1	2		
			1891	22	18.2	2.4	2.4	3	10½	1891	4	14	1	1	2		
			Mean of 10 years, 1881-90.	26.6	15.3	1.4	1.8	2.6	10½	1890	1	1	9	1	1		
			Mean of 7 years, 1874-80.	27.6	15.7	1.1	2.1	2.7	10½	1889	2	1	1	1	6		
										1888	6	1	3	1	1		
										1887	1	1	1	1	3		
										1886	7	1	2	1	1		
ENTIRE EPSOM UNION.	CARSHALTON URBAN (Parish of Carshalton).	6,650	1893	28.6	14	1.3	.7	2.2	9	1893	1	1	1	1	3		
			1892	29	15.3	.4	.9	2.7	12	1892	1	1	1	1	1		
			1891	30.6	16.1	1.8	1.5	1.5	9½	1891	6	2	1	1	1		
			Mean of 10 years, 1881-90.	29.7	14.5	1.6	1.4	2.1	12½	1890	2	1	2	1	2		
			Mean of 7 years, 1874-80.	33.3	16.7	2.8	1.3	2.5	14½	1889	2	1	5	1	1		
										1888	1	1	1	1	3		
										1887	1	1	1	1	1		
										1886	8	1	6	1	1		
ENTIRE EPSOM UNION.	SUTTON URBAN (Parish of Sutton).	12,400*	1893	24.4	12.1	1.6	.8	2	11	1893	4	1	3	2	10		
			1892	24.7	13	1	1.6	2.5	11½	1892	1	1	2	3	8		
			1891	24.8	12.8	.3	.8	1.5	10	1891	1	1	1	1	1		
			Mean of 10 years, 1881-90.	31.3	13.1	1.6	1.1	1.7	9½	1890	1	1	2	4	3		
			Mean of 7 years, 1874-80.	35.3	16.9	2.5	1.6	2.1	12½	1889	4	1	3	14	1	3	
										1888	1	1	1	1	1		
										1887	1	1	1	1	1		
										1886	20	1	16	7	7		
ENTIRE REIGATE UNION.	REIGATE RURAL.	14,100	1893	26.9	11.8	1.1	.9	1.5	8	1893	7	1	2	1	2	4	
			1892	26.7	14.6	1.2	.7	3.6	11½	1892	6	2	6	1	1		
			1891	26.1	15.9	1.2	.9	3.8	9½	1891	2	1	6	2	6		
			Mean of 10 years, 1881-90.	29.5	12.9	.9	1	2.4	9	1890	9	1	3	1	1		
			Mean of 7 years, 1874-80.	31.8	15.5	1.5	1.6	2.3	10	1889	2	1	3	1	1		
										1888	3	1	1	1	1		
										1887	2	1	2	2	2		
										1886	1	1	1	9	1	2	
ENTIRE REIGATE UNION.	REIGATE URBAN (Borough of Reigate).	22,500*	1893	23.5	13.8	1.2	1.5	2.1	8½	1893	10	2	2	2	1	9	
			1892	21.9	13.7	.6	1.2	3.3	11½	1892	1	2	2	8	1	2	
			1891	22.6	13.4	.5	1.2	2.5	9	1891	1	1	1	7	3		
			Mean of 10 years, 1881-90.	27.4	12.9	1.2	1.2	2.3	9½	1890	1	2	6	7	4		
			Mean of 7 years, 1874-80.	29	14.1	1.5	1.6	2.3	10	1889	19	1	114	1	4		
										1888	2	9	4	2	2		
										1887	3	9	5	1	1		
										1886	6	7	5	1	10		
ENTIRE REIGATE UNION.	ENTIRE DISTRICT.	134,250	1893	24.8	13.4	1.6	1	2.2	10½	1893	154	11	35	33	14	59	
			1892	24.5	14.1	.9	1.1	3.3	10½	1892	11	5	39	36	2	28	
			1891	26.4	15.0	1.1	1.3	2.7	9½	1891	15	20	30	37	9	33	





As to House drainage.—The Surveyor states that the drains of 22 houses were connected with the sewers, during the year, making a total of 1409 houses which drain now into the sewers. The drains of several houses were provided by the owners with means of ventilation, but there are still many which are without adequate means of ventilation.

As to Water Closets.—Cisterns and water for flushing purposes were provided, during the year, by the owners, for 14 hand-flushed closets, in addition to the 76 which were so provided in the two previous years.

As to the supervision which was exercised, during the year, over places and houses which the Sanitary Authority have power to regulate.—The retail Bake-houses were inspected. The Slaughter-houses were also regularly inspected and reported upon by the Inspector.

As to the inspection and regulation of Dairies, Cowsheds, and Milkshops.—The Inspector has sent the following return for the year ending December 31st:—

Number of registered places at which business was being carried on at the commencement of the year	...	...	11
Number of persons registered during the year	...	...	6
Number of premises inspected during the year	...	...	17
Total number of inspections made during the year	...	...	34
Number of premises at which improvements in the lighting, ventilation, drainage, paving, means of cleansing, or water supply, were affected during the year	...	...	...
Number of premises at which the milk-vessels or other utensils were found in an unclean state	...	...	...
	...	...	none.
	...	...	none.

The Sanitary Inspector's returns show that 2162 cubic yards of house refuse were removed by the Sanitary Authority and sold during the year. During the hot weather the refuse was removed every week from the houses in the most populous parts of the district.



The Sanitary Inspector's statement as to the nuisances which were dealt with, and other work which was done during the year, is given in detail as follows :

Number of complaints received in writing	...	...	...	6
Number of premises inspected	...	...	...	150
Number of nuisances discovered	...	...	...	70
Number of nuisances remedied without being reported	...	...	...	10
Number of nuisances remedied after report	...	...	...	60
Number of formal notices served for the abatement of nuisances	...	...	...	60
Number of times that legal proceedings were taken for the abatement of nuisances	...	...	...	none.

Particulars of work done by owners or occupiers in compliance with notice :

Number of filthy houses cleaned	...	...	...	26
Number of unwholesome houses repaired	...	...	...	22
Number of houses where eaves'-gutters were provided	...	...	...	8
Number of houses closed as unfit for habitation	...	...	...	none
Number of houses demolished	...	...	...	none
Number of houses in which overcrowding was abated	...	...	...	1
Number of houses for which efficient ventilation was provided	...	...	...	6
Number of new water-closets provided	...	...	...	14
Number of privies converted into water-closets	...	...	...	none
Number of water-closets for which cisterns and water were provided	...	...	...	14
Number of houses at which the drains were cleansed, laid, or relaid, ventilated, trapped, or disconnected from the house-pipes	...	...	...	16
Number of houses at which dustbins or ashpits were provided	...	...	...	none
Number of slaughter-houses cleaned or repaired	..	...	...	4
Number of premises at which animals, improperly kept, were removed	...	...	...	none
Number of offensive accumulations, &c., removed	...	...	...	none



Food.—Number of seizures as unfit for human consumption	none
Water Supply.—Number of samples sent to the Medical Officer of Health for analysis	1
Number of houses supplied by owners with water from the Waterworks after notice under Sec. 62 of the Public Health Act, 1875	none
Number of wells closed, or abandoned, as being polluted	1

Proceedings under Sec. 150 and 152 of the Public Health Act, 1875.—The surveyor states that no streets (not being highways repairable by the inhabitants at large) were sewered, levelled, paved, metalled, flagged, channelled, and lighted during the year, after notice to the frontagers, under Sec. 150 of Public Health Act, 1875, or were declared, under Sec. 152 of the Act, to be highways.

As to Water Supply.—One sample of water which was sent to Dr. Jacob from a private well in the district, was found to be of fairly good quality.

The filters, which Mr. Mansergh, C.E., had recommended the Dorking Water Company to provide for the improvement of their supply from the Redlands, were constructed during the year.

### *Dorking Rural.*

As to Nuisances.—The Inspector's return of the Nuisances which were dealt with, during the year, is given in detail, as follows :

Number of Complaints received in writing	...	...	...	6
Number of Premises inspected, under Section 92 of the Public Health Act, 1875	...	...	...	468
Number of Nuisances discovered	...	...	...	126
Ditto	ditto	remedied without being reported	...	44
Ditto	ditto	reported to the Sanitary Authority	...	82
Ditto	ditto	remedied after report	...	73

Number of Notices served for the abatement of Nuisances (Preliminary or by order of the Sanitary Authority) ...	64
Particulars of Work done by Owners or Occupiers, for abatement of Nuisances, in most cases after Service of Notices :	
Number of privies, cesspools, ditches, pools, gutters, water- courses, urinals, ashpits, and drains cleansed, and of deposits removed ... ..	31
Number of old privies re-constructed with small water-tight vaults or with pails ... ..	15
Number of premises at which the drains were re-constructed, ventilated, trapped, or disconnected from the house-pipes	26
Number of premises at which new drains or cesspools were provided under Section 23 or Section 94 ... ..	44
Number of houses in which overcrowding was abated ...	1
Legal proceedings taken, under Section 96, for abatement of nuisances (number of times) ... ..	1
Legal proceedings taken, for not complying with Order of Justices (number of times) ... ..	1
Water Supply.—Number of samples sent to the Medical Officer of Health for analysis ... ..	14
Cases under Sec. 3, Public Health (Water) Act, 1878 ...	6
Number of Water certificates which were granted under Sec- tion 6 of the Public Health (Water) Act, 1878 ... ..	7

W. RAPLEY, JUNR.

As to the Bye-laws, made under Sec. 157 of the Public Health Act, 1875, relating to new streets and buildings. At Midsummer the bye-laws which the Sanitary Authority had made under this section came into operation in every part of their District, (having previously only been in force in the Parish of Dorking), and the Surveyor states that plans of 42 new buildings were submitted during the year for approval under them.



As to Water-supply.—Fourteen samples of water were sent to Dr. Jacob for examination from wells, tanks, and springs, at the undermentioned places, with the result shown in the following table :

When the Samples were taken.	Where the Samples were taken.	The water was found to be	Action taken, &c.
1893.			
January .....	Railway Station, Ockley .....	Of good quality	
"	Abinger Hammer...	"	
March .....	Ockley Village ...	"	
May .....	Westcott .....	Of fairly good quality	
"	Wotton.....	Of fairly good quality .....	Water certificate granted.
June .....	Abinger .....	Of good quality ...	Water certificate granted.
October .....	Abinger Hammer	"	Water certificate granted.
"	Holmwood Common .....	"	
"	Holmwood Common .....	"	
"	Holmwood Common.....	"	
"	Tap on Holmwood Common supplied by Water Company's main	Turbid and containing a good deal of organic matter	
November .....	Effingham .....	Of fairly good quality	
"	Abinger .....	Of good quality ...	Water certificate granted.
"	"	"	Water certificate granted.
December .....	Wotton.....	"	Water certificate granted.

As to the New Sewers at Pixholme. The Surveyor states that they have acted satisfactorily, and that the drains of four new houses were connected with them during the year.

Under the Dairies', Cowsheds' and Milkshops' Order.—The Inspector, Mr. Rapley, makes the following return for the year ending December 31st:—

Number of registered cowkeeper's, dairymen, and purveyors of milk carrying on business at commencement of the year	53
Number since registered	2
Number of registered premises inspected during the year	50
Total number of visits paid during the year	100
Number of cowsheds, and dairies at which improvements in the lighting and ventilation, paving, drainage, means of cleansing, or water supply, were made during the year	3
Number of cowsheds or dairies which were found in an unclean state	none
Number of premises at which the milk vessels were found in an unclean state	none
Number of cowsheds in which overcrowding was abated during the year	none
Number of persons who gave up business during the year	3
Number of cowsheds from which swine were removed during the year	none
Number of new cowsheds constructed during the year	1

### *Carshalton Urban.*

As in previous years, the Sanitary Authority contracted for the removal of house refuse from premises in their district.

The slaughter-houses and the premises of the registered cow-keepers, dairymen, and purveyors of milk were inspected.

As to the Bye-Laws relating to new streets and buildings: The Surveyor states that—

The number of new buildings, and of additions to buildings, of which plans were submitted for approval under the Bye-Laws, was ... None.

Proceedings under Secs. 150 and 152 of the Public Health Act, 1875. The Clerk states that the number of streets (not being highways repairable by the inhabitants at large) which were sewered, levelled, paved, metalled, flagged, channelled, or lighted, during the



year, after notice to their respective frontagers, under Sec. 150 of the Public Health Act, 1875, with a view to their being declared, under Sec. 152 of the Act, to be Highways, was one, as against three in 1884, two in 1886, two in 1887, four in 1888, two in 1889, four in 1890, two in 1891, and three in 1892.

The following is the Sanitary Inspector's return of the Nuisances dealt with, and other work done, during the three months ending December 31st—

Number of Complaints received in writing	...	...	...	3
Number of Premises inspected under Section 92 of the Public Health Act, 1875	...	...	...	113
Number of Nuisances discovered	...	...	...	75
"          "          remedied without being reported	...	...	...	43
"          "          reported to the Sanitary Authority	...	...	...	29
"          "          remedied after report	...	...	...	13
Number of Notices served for the Abatement of Nuisances, under Section 94	...	...	...	29

Particulars of Work done by owners or occupiers, for the Abatement of Nuisances, in compliance with notice :

Number of Privies, cesspools, ditches, pools, watercourses, urinals, ashpits, and drains cleansed, and number of deposits removed	...	...	...	...	...	55
Number of Premises from which animals, improperly kept, were removed	...	...	...	...	...	1

### *Epsom Urban.*

As to the Bye-Laws relating to New Buildings.—The Surveyor states that the number of plans of new buildings, or of additions to buildings, which were submitted during the year for approval under these bye-laws was 21, as against 70 in 1882, 107 in 1883, 76 in 1884, 62 in 1885, 32 in 1886, 46 in 1887, 70 in 1888, and 33 in 1889, 29 in 1890, 29 in 1891, and 25 in 1892. And that a plan of one new street was submitted.



As to the supervision exercised over places which the Sanitary Authority has the power to regulate. — The bake-houses and slaughter-houses were inspected.

Mr. Skilton, Inspector of dairies, cowsheds, and milkshops, states that there has been no application to be put on the register; and that all the cowsheds are in a satisfactory condition, and there has been no outbreak of contagious disease among the cows.

The removal of House Refuse was systematically performed, as in past years, by the authority's own horses, carts and men, which is a more satisfactory way of doing the work than by contracting for it.

As to Nuisances.—The inspector states that 102 premises were inspected during the nine months ending December 31st, with a view to the discovery of nuisances, and that various nuisances found on them were satisfactorily abated after notices had been served for that purpose.

As to works of sewerage.—The surveyor states that during the year three new sewers with ventilating manholes were laid, and that portions of seven sewers were taken up, cleansed or un-blocked, and re-laid.

As to Water Supply.—The Sanitary Authority devoted much time and thought to the question of obtaining an additional supply of water, and of otherwise improving their works, and decided to provide a new reservoir on the Downs, and fresh pumping machinery, &c., and they applied to the Local Government Board to sanction a loan for the necessary works. In the meantime, they had sent samples of water from the two wells at the works to Dr. Stevenson, County Analyst, who reported that they were both organically pure water, free from all pollution, and that their purity is that of the best deep well-waters from the chalk—a result which (together with other circumstances) satisfied them that there was no necessity for them to abandon the present wells, and seek a supply at a greater distance from the town.



*Reigate Rural.*

Certain ash closets (some with pails, and some with small water-tight vaults), in the populous parts of the parish of Horley, were cleansed once a week, as in past years, by a contractor, at the expense of the Sanitary Authority, but some of them have already been converted into water-closets, which drain into the new sewers, and the remainder will probably be similarly dealt with during the ensuing year.

As to the Bye-Laws relating to New Streets and Buildings. The Surveyor states that plans of no new streets were submitted during the year, for approval, under these bye-laws, and that the number of new buildings for which plans were similarly submitted was 66, as against 76 in 1892, 118 in 1891, 74 in 1890, 41 in 1889, and 64 in 1888.

The Sanitary Inspector's statement as to Nuisances dealt with and other work done during the year is given in detail, as follows :

Number of Complaints received in writing	...	...	...	14
Number of Premises inspected under Section 92 of the Public Health Act, 1875	...	...	...	302
Number of Nuisances discovered	...	...	...	67
"            "            remedied without being reported	...	...	...	38
"            "            reported to the Sanitary Authority	...	...	...	29
"            "            remedied after Report	...	...	...	29
Number of Preliminary Notices served by the Inspector for the abatement of Nuisances	...	...	...	17
Number of Notices for the abatement of Nuisances served by order of the Sanitary Authority	...	...	...	2

Particulars of Work done by owners or occupiers, after notice, for abatement of Nuisances :

Number of privies, cesspools, dishes, pools, gutters, watercourses, urinals, ashpits, and drains cleansed and of deposits removed	14
Number of new privies or earth closets provided	2
Number of privies re-constructed with pails or with small water-tight vaults	9



Number of premises at which the drains were re-constructed, ventilated, trapped, or disconnected from the house pipes ...	14
Number of premises at which new drains or cesspools were provided, under Sec. 23 or Sec. 94 ...	9
Number of premises from which animals, improperly kept, were removed ...	2
Number of damp or otherwise unwholesome houses repaired ...	4
Number of foul houses cleansed and whitewashed ...	8
Number of infected houses disinfected and limewashed ...	42
Water Supply. Number of samples sent to the Medical Officer of Health for analysis ...	6
Wells, tanks, cisterns, ponds (public or private), permanently or temporarily closed after notice as unfit for drinking or domestic purposes ...	2
Number of houses provided with water by owners after notice under Sec. 62 of the P.H. Act, 1875 ...	6

NIMROD WALTER,

*Inspector of Nuisances.*

As to Water Supply. Samples of water, which were sent from wells or pumps at the undermentioned places, were examined by Dr. Jacob with the results shown by Table on following page :

When the Samples were taken.	Source of Supply.	Situation of Premises.	The Water was found to be	Action Taken.
1893.				
March ..	Well ...	Albert Road, Horley	Polluted ...	The wells were closed and a supply of water was taken from the Water Company's main.
" ...	" ...	Victoria Road, Horley	Fairly good ..	
" ...	Pump			
June .....	"	Railway Station Betchworth	"	
October ...	"	Lowfield Heath, Charlwood	"	
" ..	"	Lowfield Heath, Charlwood	"	
November	Well ...	Albert Road, Horley	Of doubtful purity	Nothing done.
"	" ...	Village, Charlwood...	"	" "



During a considerable portion of the year, owing to the dryness of the weather, many of the soft water tanks at Walton-on-the-Hill were dry, and the pond which forms the water supply of a good many cottages there was very low and weedy. It seems very desirable that an arrangement should be made with the Sutton Water Company, or with the East Surrey Water Company, to furnish a supply of water to this village.

Mr. Nimrod Walter, the Inspector of the Dairies, Cow-sheds, and Milk Shops in the district, states that the

Number of persons on the register and carrying on business at							
the beginning of the year was	...	...	...	...	...	...	72
Number registered during the year was	...	...	...	...	...	...	2
Number of premises visited during the year was	...	...	...	...	...	...	74
Number of visits made during the year was	...	...	...	...	...	...	148
Number of premises at which improvements were effected in							
the lighting, ventilation, drainage, or water supply during							
the year was	...	...	...	...	...	...	7

### *Reigate Urban.*

As to the systematic removal of House Refuse.—The Sanitary Authority again contracted for the periodical removal of Refuse from houses in each of the Wards in the Borough, instead of themselves undertaking its removal, as they had previously done. Numerous complaints of the non-removal of the stuff were made, and experience in other places has proved that, though it costs more, the work is better done by the Local Authority's own men than by the contractor and his men.

As to the Bye-Laws relating to New Streets and Buildings.—The Borough Surveyor states that plans of four new streets were submitted during the year for approval under the Bye-Laws, and that the number of new houses and other buildings, and of additions to existing



buildings, for which plans were submitted during the year, for approval under the Bye-Laws, was 156, as against 151 in 1892, 149 in 1891, 143 in 1890, 105 in 1889, 157 in 1888, 143 in 1887, 120 in 1886, 155 in 1885, 176 in 1884, 74 in 1883, and 125 in 1882.

During the year the Sanitary Authority decided that the new Bye-Law requiring water-closets to be furnished with separate cisterns and apparatus for flushing purposes shall be enforced with respect to all water-closets constructed in future, and not merely for indoor closets, as was previously the rule.

As to Works of Sewerage and House Drainage.—The Surveyor states that parts of three sewers were taken up and re-laid during the year, that the drains of 68 houses, and of other buildings, were connected with the sewers, and that flushing tanks were constructed at the head of four sewers.

As to proceedings under Secs. 150 and 152 of the Public Health Act, 1875.—The surveyor states that the number of streets (not being highways, repairable by the inhabitants at large) which were sewered, levelled, paved, metalled, flagged, channelled or lighted, during the year, after notice to their respective frontagers, under Sec. 150 of this Act, and which were afterwards declared, under Sec. 152 of this Act, to be highways, was two, as against three in 1892, four in 1891, one in 1890, two in 1889, one in 1888, and two in 1887.

As to Nuisances.—The Inspector's statement as to the nuisances which were dealt with is given in detail as follows :

Number of complaints received in writing	...	...	...	107
Number of premises inspected under Section 32 of the Public Health Act, 1875	...	...	...	284
Number of nuisances discovered	...	...	...	62
Ditto ditto remedied without being reported	...	...	...	38
Ditto ditto reported to the Sanitary Authority	...	...	...	24



Number of nuisances remedied after report ... ..	24
Number of preliminary notices served by the Inspector for the abatement of nuisances ... ..	19
Number of notices for the abatement of nuisances served by order of the Sanitary Authority ... ..	2

Particulars of Work done by Owners or Occupiers for abatement of Nuisances, or compliance with Bye-Laws, after service of Notices :

Number of privies, cesspools, ditches, pools, gutters, water-courses, urinals, ashpits, and drains cleansed, and of deposits removed ... ..	17
Number of premises at which the drains were re-constructed, ventilated, trapped or disconnected from the house-pipes ...	21
Number of premises at which new drains or cesspools were provided under Sec. 23 or Sec. 94 ... ..	6
Number of premises from which animals improperly kept were removed ... ..	7
Number of houses which were provided with efficient ventilation	3
Number of houses in which overcrowding was abated ...	3
Number of filthy houses which were cleansed and whitewashed	6
Damp, unwholesome houses, repaired after notice ... ..	2
Number of foul slaughter-houses which were cleansed ...	7
Number of covered ashpits provided after notice ... ..	19
Common lodging houses inspected under Section 85 ... ..	4
Water Supply.—Number of samples sent to the Medical Officer of Health for analysis ... ..	32
Wells, tanks, cisterns, ponds (public or private), permanently or temporarily closed, after notice, as unfit for drinking or domestic purposes ... ..	2
Number of houses provided with water by owners, after notice, under Sec. 62 of the P.H. Act, 1875 ... ..	8

Among others which engaged attention during the year were :

- (a.) The offensive effluvia issuing from some of the road-gratings which ventilate the sewers at Meadvale and other parts of the district. In order to remedy this the sewers in question were frequently flushed from the tanks which had been constructed for that purpose, and ventilating columns or shafts were substituted for some of the open gratings. Dr. Jacob also suggested the enforcement of a supply of water for flushing purposes, under Sec. 36 of the Public Health Act, 1875, to all outdoor closets at Meadvale, which are only flushed occasionally with water from the wells on the premises, so as to ensure that the excreta should reach the sewers in as fresh a state as possible.
- (b.) The foul ditches and other nuisances at a number of cottages on Reigate Heath.—The Local Government Board having intimated to the Sanitary Authority that sewers must be provided for this locality, the Authority again took the matter up, and after the surveyor had submitted two or three alternative schemes, they adopted one for laying the requisite sewers and pumping the sewage into the Park Lane sewer, and they applied to the Local Government Board to sanction a loan for the sewers, for the purchase of the land for the pumping station, and for the machinery, &c. In October the Board held a public enquiry into the matter and afterwards sanctioned the loan.
- (c.) The inefficient means of drainage of certain cottages at Battle Bridge, at the North-East corner of the Borough. In November the Surveyor presented a report, showing that a sewer could be provided for this part of the district, and could be connected with the nearest existing



sewer at a cost of about £600, but this was considered to be too great an expense to incur for the benefit of so small a number of houses.

During the year the Sanitary Authority decided to provide a Mortuary in the Cemetery at Reigate, and the Surveyor submitted plans and an estimate of the cost of the proposed building. The question however, of a site had not been settled with the Burial Board before the year closed.

As to the Dairies', Cowsheds' and Milkshops' Order.—The Inspector makes the following return for the year ending December 31st, 1893:

Number of registered cowkeepers, dairymen and purveyors of milk, carrying on business at the commencement of the year	29
Number since registered	4
Number of registered premises inspected during the year	29
Total number of visits paid during the year	70
Number of cowsheds and dairies at which improvements in the lighting and ventilation, paving, drainage, means of cleansing, or water supply were made during the year...	1
Number of cowsheds or dairies which were found in a filthy state	2
Number of persons who gave up business during the year	5

As to Water Supply.— During the year Dr. Jacob examined samples of water which were sent to him from thirty-two private wells, supplying sixty-six houses in the district. The situation of these wells, the results of the analyses, and the action taken, in compliance with notice from the Sanitary Authority, by the owners of those

wells which were not found to be of good quality, are shewn in the following table.

Situation of the Wells.	Number of samples found good.	Number of samples found of doubtful quality.	Number of samples found so polluted as to be injurious to health.	Number of Samples containing so much saline matter as to be unfit for use.	TOTAL number analysed.	Action taken by owners in response to Notice from the Sanitary Authority.
Garlands Road, Redhill		2			2	The wells were abandoned and water was provided from the Company's main.
St. John's, Earlswood		1			1	The well was cleaned out.
Battle Bridge	1				1	
Shrewsbury Road, Redhill		1			1	Nothing was done
Cat Lane, Meadvale	3	1			4	Nothing was done.
Hardwick Road, Meadvale		2		3	5	Two wells were cleaned out.
Somerset Road, Meadvale	5	10	3		18	The 3 polluted wells and 1 doubtful well were abandoned, and water was provided from the Company's main. One other well was cleaned out. On the other premises nothing was done.
Totals .....	9	17	3	3	32	



In Dr. Jacob's final report on the Wells at Meadvale, he reminded the Sanitary Authority that all wells near inhabited houses are very liable to pollution in various ways, and that for this reason, and in order to secure the due flushing of the water closets, it was desirable that all these wells should, if possible, be superseded by a supply from the East Surrey Water Company's main. And he indicated a way in which this could be compulsorily effected without closing the wells if the owners of the premises, in response to the notices served upon them, failed to provide a supply from that source.

Towards the end of the year the Sanitary Authority drew the attention of the East Surrey Water Company to the defective water supply of certain houses at Battle Bridge, and asked them to extend their mains to that part of the district, and the Company have since undertaken to do so.

### *Sutton Urban.*

As to House drainage—In April, the task of connecting the house drains with the new sewers was commenced, and the Surveyor states that, during the year, the drains of 963 houses, and other buildings were so connected in accordance with the Authority's stringent regulations. The drainage of 32 other houses was also in progress, and plans for the drainage of 131 other houses into the sewers had been submitted and approved. On all premises, draining to the sewers, the closets are water-closets, and are provided with cisterns and apparatus for flushing purposes.

The systematic (and, in hot weather, the weekly) removal of house refuse was undertaken by the Authority, as in previous years. The Inspector reports that 3100 loads of the stuff were collected and sold, or taken to the Sewage Farm.

To facilitate the final Cleansing of Privies and Cesspools, after the house drains were connected with the sewers, the Sanitary Authority purchased a van with pump and hose, and provided the necessary



chemicals for deodorising the stuff, together with a place of deposit for it. During the year, 204 covered cesspools and open privy cesspits, containing about 436 loads of sewage, were thus emptied, without nuisance, by the Authority's men.

The Sanitary Inspector's statement as to the nuisances which were dealt with during the year is given in detail as follows :

Number of complaints received in writing	...	...	...	64
Number of premises inspected under Sec. 92 of the Public Health Act, 1875	...	...	...	none
Number of nuisances discovered	...	...	...	116
Ditto ditto remedied without being reported	...	...	...	53
Ditto ditto reported to the Sanitary Authority	...	...	...	63
Ditto ditto remedied after report	...	...	...	60
Number of preliminary notices served by the Inspector of the Abatement of Nuisances	...	...	...	120
Number of notices for the abatement of nuisances served by order of the Sanitary Authority	...	...	...	92

Particulars of Work done for the Abatement of Nuisances in compliance with notices :

Number of privies, cesspools, ditches, pools, water-courses, urinals, ashpits and drains cleansed, and number of deposits removed	...	...	...	...	...	317
Number of new privies or water-closets provided	...	...	...	...	...	78
Number of old privies reconstructed as water-closets	...	...	...	...	...	205
Number of premises at which the drains were reconstructed, ventilated, trapped, or disconnected from the house pipes	...	...	...	...	...	913
Number of houses at which new drains or cesspools were provided under Sec. 23 or Sec. 94	...	...	...	...	...	
Number of premises from which animals improperly kept were removed	...	...	...	...	...	14
Number of houses at which injurious overcrowding was abated	...	...	...	...	...	6
Legal proceedings taken under Sec. 96 for abatement of nuisances (number of times)	...	...	...	...	...	2
Number of foul houses cleansed and whitewashed after notice under Sec. 46 of the Public Health Act, 1875	...	...	...	...	...	16
Seizures of unwholesome meat, poultry, fish, fruit, vegetables, corn, bread, flour or milk, under Sec. 116 of the Public Health Act, 1875	...	...	...	...	...	10
Legal proceedings and convictions under Sec. 117	...	...	...	...	...	2



Water supply.—Number of samples of water sent to the	
Medical Officer of Health for Analysis ... ..	3
Number of water-supply provided by owners of property after	
notice under Sec. 62 (number of houses) ... ..	8

J. KEAL,

*Sanitary Inspector.*

As to the Bye-Laws relating to new Streets and Buildings.

The Surveyor states that the number of new buildings, and	
of additions to buildings, of which plans were submitted for	
approval under the Bye-Laws, was ... ..	87
The number of new streets ditto was ... ..	2
The number of times that legal proceedings were taken for	
breach of the Bye-Laws relating to streets and buildings,	
was ... ..	none.

The number of streets (not being repairable by the inhabitants at large) that were sewered, levelled, paved, metalled, flagged, channelled, or lighted, after notice to the respective owners, under Sec. 150 of the Public Health Act, 1875, and that were afterwards declared, under Sec. 152 of that Act, to be highways, were two in 1885, five in 1886, one in 1888, five in 1889, and one in 1890. None were made up in 1891, 1892, or 1893, but the Authority contemplate applying to the Local Government Board to sanction a loan to cover the expense of making up a large number of roads under the Private Streets Works Act, 1892.

As to "the supervision which was exercised over places and houses that the Sanitary Authority has power to regulate." The slaughter-houses were frequently inspected, and the Bye-Laws relating to them were duly observed.

The retail bakehouses (eighteen in number) were also inspected, and notices were served on the occupiers of four which were found in an unclean or unsanitary condition, requiring them to cleanse them.



The Inspector of Dairies, Cowsheds, and Milkshops makes the following return for the year ending December 31st:—

Number of registered cowkeepers, dairymen, and purveyors of milk, carrying on business at the commencement of the year	16
Number since registered ... ..	1
Number who gave up or transferred their business during the year ... ..	3
Number of registered premises inspected during the year ...	15
Total number of visits paid during the year ... ..	60
Number of cowsheds and dairies at which improvements in the lighting, ventilation, paving, drainage, means of cleansing, or water supply, were made during the year ... ..	2
Number of cowsheds or dairies which were found in a dirty state ... ..	2
Number of premises at which the milk vessels were found in an unclean state ... ..	none
Number of new cowsheds erected ... ..	1

As to the Adulteration of Food and Drugs Act.—The Inspector of Nuisances, by the direction of the Sanitary Authority, purchased (and submitted to the County Analyst for analysis) three samples of milk from different purveyors in the parish, all of which were certified to be genuine; and eleven samples of butter, ten of which were certified to be genuine, and one adulterated.

As to the Cemetery.—The number of interments which took place in the Cemetery was eight in 1889, 108 in 1890, 120 in 1891, 155 in 1892, and 131 in 1893. Four bodies were removed to the Mortuary at the Cemetery previous to interment.

A sample of the water from the main under-drain of the Cemetery yielded the same results as in the previous April, viz.: that the water contained only a small quantity of organic matter and of its oxydised products, but a very large quantity of calcareous and other salts.

As to Inspections under the Factory and Workshops Act, 1891.—The number of workshops which were inspected during the year with reference to their cleanliness, means of ventilation, and other sanitary



arrangements was 24, and at one only was anything discovered which required amendment.

### *Croydon Rural.*

Dr. Mair's Report contains much valuable information on  
Sanitary conditions generally :—

WATER SUPPLIES.—The mains of several Water Companies extend through the different parishes in the District, and from them water is laid on to the majority of the houses. In Addington, the Croydon Corporation supplies most of the houses; Kenley and Purley, in Coulsdon parish, and Sanderstead, are supplied by the Kenley and Caterham Water Company; Beddington, Wallington, Woodmansterne, and Morden are supplied by the Sutton Water Company; while Mitcham and Merton are supplied by the Lambeth Company. Where such waters are not used, deep and shallow wells, and in some places Artesian wells, yield the necessary supplies.

The water supply of the houses on Coulsdon Common was the subject of a report to the Authority in July last. He found that the only source of supply was rain water, which was stored in underground tanks or in butts, and the water from two surface ponds. Owing to the prolonged absence of rain, these sources of supply were well-nigh exhausted, and he found that the water that was being consumed was foul in the extreme, and was infested with many animalculæ, visible to the naked eye. The Authority consequently invited the Caterham Company to extend their main, which was very close to the spot in question. This extension has now been carried out, and it remains for the Authority to have the houses supplied with water from this source.

The provisions of the Public Health Water Act have been carried out in those parishes to which bye-laws as to new buildings,



&c., do not apply. Four applications for Water Certificates were received under Section 6 of this Act, 2 in Coulsdon and 2 in Sanderstead, and were granted, in each case, on the Authority being satisfied that the supply available was sufficient for domestic purposes.

EXCREMENT AND REFUSE COLLECTION AND DISPOSAL.—In the parishes comprised in the drainage district water-closets are used, and in the majority of houses the flushing is now done by means of a flushing cistern, and not by hand.

As regards the other parishes, privies with small fixed receptacles are used in Addington, and also a few w.c.'s flushed by hand; in Coulsdon village, privy-middens with large receptacles are commonly used; in Kenley w.c.'s flushed by hand are in the majority, although there are many with flushing cisterns, and several earth-closets. In Sanderstead, there are w.c.'s flushed by hand, and also a few earth-closets, privies, and w.c.'s flushed by cistern; while in Woodmansterne, privies with fixed receptacles are mostly used.

As regards Kenley, which is a rapidly growing place, a report was made before my appointment as to the water closets flushed by hand, but the matter was postponed to allow of consideration, whether this part of the district should not have a drainage scheme in connection with that at Purley.

Excrement collection is not carried out anywhere, nor is dry earth supplied to any part of the district by the Authority.

As to refuse collection, this has been carried out only in the parishes comprised in the drainage district—by the servants of the Authority in Mitcham and Merton, and by contract elsewhere. Removal has been effected once a fortnight hitherto, but I would strongly advise the Authority, when the renewal of the contracts comes up for consideration, to arrange for its removal once a week at least.



REGULATED TRADES AND OFFENSIVE TRADES.—(a.) *Slaughterhouses*.—There are 13 slaughterhouses which are licensed, or are under the provisions of the bye-laws of the Authority. These have been regularly visited by the Inspectors at least once a month, and on six occasions, defects have been reported and remedied. The bye-laws of the Authority deal only with slaughterhouses in the parishes of Mitcham, Merton, Morden, Beddington, and Wallington. There are three slaughterhouses in the other parishes, which have been inspected frequently.

The report to the Bye-laws Committee recommend that steps should be taken to obtain the necessary urban powers, so that the bye-laws might be made to apply to every parish.

(b.) *Bakehouses*.—There are 20 bakehouses in the district, which have been inspected regularly once a month. No report of uncleanness or other defects has been made in the last six months of the year.

(c.) *Dairies, Cowsheds, &c.*—There are 57 registered dairies, cowsheds, &c., in the district, distributed as follows :

Addington	...	...	...	3	Morden	...	...	...	...	1
Beddington	...	...	...	3	Sanderstead	...	...	...	...	4
Coulsdon	...	...	...	15	Wallington	...	...	...	...	11
Merton	...	...	...	9	Woodmansterne	...	...	...	...	1
Mitcham	...	...	...	10						
					Total	...	...	...	...	57

Seven of these have been registered during the past year. All have been visited regularly by the Inspectors under the Medical Officer. In nine cases defects have been reported and remedied.

(d.) *Offensive Trades*.—Three trades of this character are carried on in the district. The trade of gut-scraping is carried on in Mitcham and in Merton, and that of horse-slaughtering in Mitcham. The premises, where these trades are carried on, have been frequently

inspected. In the case of the gut scraping business, carried on in Mitcham, legal proceedings were taken against the proprietor for causing a nuisance, and a conviction was obtained. Since then the nuisance has been very largely abated, and no complaints have been received.

The proprietors of the horse-slaughtering establishment were licensed to slaughter horses before the Authority acquired powers under Sec. 169 of the Public Health Act, but quite recently the offensive trade of bone-boiling was established on their premises.

This was done without the consent of the Authority, which was necessary, as the Authority possesses urban powers for dealing with offensive trades, in the drainage district. When this was pointed out to the proprietors they gave an undertaking to cease carrying on the trade, until they obtained the necessary permission of the Authority. The matter rested there at the close of the year.

There are no bye-laws in force dealing with offensive trades.

UN SOUND, DISEASED, UNWHOLESOME OR ADULTERATED FOOD.—It has been arranged that in the coming year, the Inspectors, while always directing their attention to the detection of unwholesome or adulterated food, shall devote one day in every three months to each parish in the district, to this special purpose, and to taking samples of various articles of food, to be analysed by the County Analyst.

In the past year no action has been found necessary in regard to unwholesome food. Two samples of milk have been taken, which, after analysis by the County Analyst, were declared to be genuine.

### *Guildford Rural.*

Mr. W. Wellington Lake, D.P.H., reports jointly with his predecessor :—

Parochial Committees were again appointed for the Parishes of Ripley, Shere, Pirbright, and Woking, and for the contributory places of Stoke and S. Nicholas.



As to Nuisances.—The Inspector's statement as to the nuisances which were dealt with during the year is given below. Among other matters which engaged attention were:—(a) the foul state of certain ditches at Stoughton, which can only be effectually remedied by the provision of sewers for that part of the district; (b) the fouling of a ditch in the parish of Horsell by drainage from houses near Arthur's Bridge, in the parish of Woking; (c) the damp, dilapidated, and otherwise unwholesome condition of certain cottages at Worplesdon, Puttenham, Stoke, Knaphill, and other places, which was dealt with in some instances by notices under Sec. 32, Housing of the Working Classes Act, 1890, as the result of which 11 were closed as unfit for habitation, and others were repaired and made habitable; (d) the nuisance caused by the deposit of night soil and house refuse from Guildford in a field near the Farnham Road; (e) the foul state of a pond on the Common near the Mayford Industrial Schools, which was remedied by draining and filling up the pond.

As to Bye-Laws relating to new Streets and Buildings.—Mr. H. Moon, the Sanitary Authority's Surveyor for the contributory places of Farncombe, Crown Pits, and Charterhouse, Mr. E. L. Lunn, their Surveyor for the contributory places of Stoke, and S. Nicholas, and Mr. R. Clamp, Surveyor for the parishes of Woking and Pirbright, furnish certain information concerning the working of these Bye-Laws in their respective districts, from which it appears that during the 10 years, 1883-1893, plans were submitted for some 1700 houses, and that proceedings were taken in 14 cases, or less than 1 %.

In April, the Sanitary Authority discussed and negatived the question of applying to the Local Government Board to be invested with power to make Bye-Laws, under Sec. 157 of the Public Health Act, 1875, relating to new streets and buildings in the remaining parts of their district.

As to Water Supply.—Samples of water were sent for examination to the Medical Officer of Health from 12 wells which were intended



for the supply of water to new houses in the district, and, in four instances, in which he was obliged to report unfavourably of the water, the Sanitary Authority withheld the Water Certificates which had been applied for, under Sec. 6 of the Public Health (Water) Act, 1878. The Inspector states that the number of such certificates which were granted during the year was 74 in respect of 110 houses, 79 of which were supplied from the mains of the Frith Hill or Woking Company, and the others from private wells or tanks.

In two instances legal proceedings were taken against the owners of new houses, for allowing them to be occupied without having first obtained the necessary Water Certificates from the Authority.

Samples of water were also sent from suspected wells in various parts of the district, with the result that some polluted wells, and some of doubtful quality, were closed, and a supply obtained from the mains of one of these Companies. (See also the following table.) A sample of water which was sent from the mains of the Woking Water Company was turbid from suspended mineral matter, and, as usual, was very hard.

TABLE, showing the number of samples of potable water, which were sent to the Medical Officer of Health for analysis, during the year, from private wells in the District, with the results :

Situation of the Premises from which the samples were taken.	Number of Samples Found.			Total number analysed during the year 1893.	Number of Owners, who, on receipt of notice, took a supply of water from the Co.
	So polluted as to be injurious to health.	Sus- picious or doubtful.	Good.		
Woking Parish.....	7	4	2	13	6
Pirbright .....	3	...	1	4	1
Stoke .....	3	2	...	5	5
Albury .....	...	...	3	3	...
Worplesdon .....	...	1	2	3	...
Ockham .....	2	...	...	2	...
Shere .....	1	2	1	4	...
Compton .....	1	...	2	3	...
Puttenham.....	...	...	1	1	...
<b>TOTAL IN 1893.....</b>	<b>17</b>	<b>9</b>	<b>12</b>	<b>38</b>	<b>12</b>
Total from 1st October, 1883, to 31st December, 1893 }	333	339	167	839	{ 313 representing about 916 houses.



The defective water supply at Broad Common and May's Green, Ockham, was, and is still in consideration.

As to the Dairies', Cowsheds', and Milkshops' Order. The Inspector makes the following Return for the year ending December 31st, 1893 :—

Number of registered cowkeepers, dairymen, and purveyors of milk, carrying on business at the commencement of the year	117
Number since registered	8
Number of registered premises inspected during the year	80
Total number of visits paid during the year	86
Number of cow-sheds and dairies at which improvements in the lighting, ventilation, paving, drainage, means of cleansing, or water supply, were made during the year	7
Number of cow-sheds or dairies which were found in a filthy state	6
Number of premises at which the milk vessels were found in an unclean state	none

During the year the Sanitary Authority again drew attention by advertisement, and otherwise to the requirements of this Order.

The Slaughter-houses in the Parish of Woking were inspected under the Bye-Laws, and one new slaughter-house was erected and licensed. It is desirable that the Sanitary Authority should be invested with power, under Sec. 169 of the Public Health Act, 1875, to make Bye-Laws for the regulation of slaughter-houses in all the parishes in the district.

Sanitary Inspector's Report for the Year ending December 31st, 1893.

Number of complaints received in writing	19
Number of nuisances reported and abated	321
Ditto ditto reported and not yet abated	13

Particulars of Work done by Owners and Occupiers, for Abatement  
of Nuisance, &c., in compliance with Notice.

Number of privies, drains, cesspools, and ditches cleansed, and of accumulations or deposits removed ... ..	65
Number of new privies or pail-closets provided ... ..	4
Number of old privies re-constructed as pail-closets or otherwise ... ..	29
Number of premises at which the drains were trapped or otherwise improved, or disconnected from the house pipes ...	22
Number of premises at which new drains or cesspools were provided ... ..	5
Number of houses at which injurious overcrowding was abated	3
Number of houses which were cleansed, repaired, or provided with efficient ventilation (after notice under the Public Health Act, 1875, or under the Housing of the Working Classes Act, 1890 ... ..	149
Number of premises from which animals improperly kept were removed ... ..	6
Number of houses closed as unfit for habitation ... ..	11
Water Supply.—Number of samples of potable water sent to the Medical Officer of Health for analysis ... ..	39
Number of wells closed, after legal proceedings under Sec. 70 of the Public Health Act, 1875 ... ..	2
Number of houses to which water was supplied by owners, after notice under Sec. 62 and Sec. 70 of the Public Health Act, 1875 ... ..	36
Number of houses under Sec. 3 of the Public Health (Water) Act, 1878 ... ..	none

*Guildford Urban.*

Dr. Morton reports as follows :—

“Water Supply.—This has been good in quality, and ample in quantity, though doubts were felt at one time owing to the abnormally dry year, whether the supply would meet the demand. It is more than probable that a large quantity was wasted owing to the fracture of pipes, caused by the Sewerage Works.

The quality has also been good, as shewn by the analysis of Mr. Angel, the Public Analyst, which is appended.



Public Baths.—These admirable baths are becoming more and more popular. The number of hot baths used was 4231, as against 3573 in 1892.

The large swimming bath was used by 15,013 males, as against 13,064 in 1892; by 1602 females, as against 1257 in 1892. The total sum taken was £264 10s. 6d.

The schools regularly attending the baths are the Royal Grammar, the Miss Moody's, Allen House; and Miss Wenham's, High Street.

Common Lodging-houses, Bake-houses, Slaughter-houses, Factories, &c., have been conducted according to law and with as little nuisance as possible.

Work done by Sanitary Inspector:

1. Ninety notices have been served to abate nuisances.
2. One prosecution to enforce abatement of nuisances.
3. Two polluted wells ordered to be closed.
4. Slaughter-houses, milkshops, &c., regularly inspected.

New Sewerage Works.—These are progressing, and will, it is believed, ere long be ready for the house connections to be made. If these connections be made, as they ought to be, direct with the house drains, and not with the overflow pipe of the cesspools, I anticipate a great improvement in the health of the district. *Should, however, the connections be made with the overflow cesspool pipes, there will be an increase in the number of Zymotic diseases and of those diseases due to foulness and dirt."*

### *Chertsey Rural.*

In May, the Sanitary Authority appointed a Parochial Committee for the parish of Chertsey, with a view to the better performance of the removal of house refuse and the cleansing of earth-closets, privies, and cesspools which the Authority has undertaken in that parish, and with power to serve notices for the abatement of nuisances arising therein.

As to Nuisances.—The Inspector's statement as to Nuisances discovered and dealt with, during the year, is given below in detail. Among other matters which engaged the attention of the Authority, and of their Officers, were the following :—

- (a.) The damp, unwholesome, and dilapidated condition of certain cottages at Byfleet, Chobham, Bagshot, and other places, which was, in some instances, dealt with by notices under the Housing of the Working Classes Act, 1890 ;
- (b.) The nuisance caused by the discharge of sewage from houses in the parish of Woking (in an adjoining Sanitary district) into certain ditches in the parish of Horsell,—as a temporary remedy for which the latter were cleaned out ;
- (c.) The foul state of certain ditches and watercourses at Chertsey, which were also cleaned out ;
- (d.) The nuisance caused by the traffic in manure from London at the Chertsey and Addlestone Stations. The Railway Company were asked to provide sidings for the trucks at a greater distance from these stations, but declined to do so, and suggested that the nuisance might be minimised by the adoption of Bye-laws regulating the hours during which the manure may be removed from the station and compelling its removal in covered carts ;
- (e.) The nuisance caused by the deposit of nightsoil, &c., from Bagshot, in a certain field near that village ;

As to Water Supply.—The Clerk states that seventeen water-certificates for new houses under Section 6 of the Public Health (Water) Act, 1878, were applied for and granted, and ten were withheld for a time.

Ten samples were sent to Dr. Jacob of the water supplied by the West Surrey Water Company (which is filtered Thames water), and



of these, nine were fairly bright and clear and did not contain more than the usual minimum of organic matter, while one was somewhat turbid and contained more organic matter than any of the other samples.

As to the *systematic cleansing of earth-closets, privies and cesspools, and the removal of house-refuse.*

The Inspector has furnished the following statement of the work which was done during the year, at the undermentioned places, by, or at the cost of, the Sanitary Authority:—

	at Chertsey.	at Addlestone	at Weybridge.	at Oatlands.	at Hersham.	at Walton.	at Bagshot.
No. of pail-closets in use at the end of 1893, and which were cleansed twice a week	519	345	341	35	91	13	54
No. of covered cesspools and open privy-cesspits, cleansed during 1893	1906	1924	2458	304	1030	657	252
No. of loads (250 gals. each) removed from these cesspools and privies	4369	3830	7293	802	1697	1747	504
No. of loads of house-refuse removed in 1893	655	449	1476	229	240	704	208

The number of pail-closets at the above-mentioned places, which were systematically cleansed by the Sanitary Authority, was 170 more at the end of the year than at the end of the previous year, of which 26 were at Chertsey, 29 were in Addlestone, 45 were at Weybridge, 6 were at Oatlands, 3 were at Hersham, 7 were at Walton, and 54 were at Bagshot.

At Bagshot, these scavenging operations were done by a contractor, who found a place for the deposit of the stuff. At the other places, they were carried out by the Authority's own men, carts, and horses, and the matters collected were taken to their depôts, where they were made into manure and sold.

As to the working of the *Bye-laws* relating to new Streets and new Buildings, the Surveyor gives a Table which shows that in the 11 years 1883-1893, inclusive, 1350 houses have been erected, and that in one case only, were legal proceedings taken for breaches of Bye-laws, &c.

As to the *Dairies, Cowsheds, and Milkshops Order*.

The Inspector makes the following return for the year ending December 31st:—

Number of registered cowkeepers, dairymen, and purveyors of milk, carrying on business at the commencement of the year ... ..	76
Number since registered ... ..	5
Number of registered premises inspected during the year ...	81
Total number of visits paid during the year ... ..	182
Number of cowsheds and dairies at which improvements in the lighting, ventilation, paving, drainage, means of cleansing, or water supply, were made during the year ...	14
Number of cowsheds, and dairies which were found in a filthy state ... ..	none
Number of premises at which the milk vessels were found in an unclean state ... ..	none

The question of providing a *Mortuary* at Byfleet was considered, and was deferred until that of providing a Fire Brigade Station, was settled.

Sanitary Inspector's Report for the Year ending December 31st, 1893.

Number of Complaints received in writing ... ..	110
Number of Premises inspected under Section 92 of the Public Health Act, 1875 ... ..	1567
Number of Nuisances discovered ... ..	617
Do. remedied without being reported ... ..	416
Do. reported to the Sanitary Authority ... ..	208
Do. remedied after being reported ... ..	201
Number of Notices served for the Abatement of Nuisances, under Section 94 ... ..	208



Particulars of work done by Owners or Occupiers for the Abatement  
of Nuisances, in compliance with Notice :

Number of drains cut off from discharging into water-courses	52
Number of privies, cesspools, ditches, pools, water-courses, urinals, ashpits, and drains cleansed, and number of deposits removed ... ..	261
Number of new privies or water closets provided ... ..	6
Number of old privies re-constructed with small watertight vaults or with pails... ..	104
Number of premises at which the drains were re-constructed, ventilated, trapped, or disconnected from the house pipes	21
Number of premises at which new drains or cesspools were provided under Sec. 23 or Sec. 94... ..	35
Number of premises from which animals, improperly kept, were removed ... ..	49
Number of Houses which were provided with efficient ventilation ... ..	37
Number of Houses at which injurious overcrowding was abated ... ..	9
Legal proceedings taken, under Sec. 96, for abatement of nuisance (Number of times) ... ..	—
Houses condemned under the Housing of the Working Classes Act, 1890, as unfit for habitation ... ..	10
Houses closed after notice from Sanitary Authority under this Act ... ..	5
Houses repaired, and made habitable, after notice from Sani- tary Authority ... ..	28
Seizure of unwholesome meat, poultry, fish, fruit, vegetables, corn, bread, flour or milk, under Sec. 116 of the Public Health Act ... ..	none
Common Lodging Houses inspected under Sec. 85 ... ..	5

WATER SUPPLY:—

Number of Samples of Water sent to the Medical Officer of Health for Analysis... ..	84
Number of Wells abandoned, after notice under Sec. 70 of the Public Health Act, as unfit for drinking or domestic purposes ... ..	20
Number of Houses to which water was supplied by owners of premises after notice under Sec. 62 ... ..	18
Number of Houses to which water was supplied after notice under Sec. 3 of the Public Health (Water) Act, 1878	none

Signed, W. DURRANT.

*Kingston Rural.*

Dr. Gibbes reports as follows on the Sanitary Condition of the whole district:—

Sanitary Condition of the whole District.—During the past year a systematic inspection has been made of houses let at a weekly rental, and where necessary, some have had constant supervision.

Ashbins have been supplied to a large number of cottages, and it is intended to have this carried out throughout the entire district.

All houses that drain into Nos. 1 and 2 scheme have been properly connected under the supervision of the Surveyor, and all the sink drains are properly disconnected. Water is laid on to the closets, with waste water preventors.

West Molesey, Ham, Malden, and Kingston Hill are not on the drainage schemes.

All houses, except the more isolated ones, are supplied by the Lambeth Company's water, which has been of a better quality than during 1892.

The wells in the district have been kept under supervision, and thirteen samples have been analysed by the Medical Officer of Health, who found it necessary to condemn seven as being polluted with sewage and unfit for drinking; five samples were of good quality; and in one he recommended the well to be cleaned out.

Schools.—It is reported that more ventilation in the Thames Ditton and Long Ditton Schools would be beneficial to the scholars.

That the Thames Ditton Infant School, mentioned in the last report as being unsatisfactory, has been entirely re-organised and now meets approval. A large new class room has been built, and new male and female closets constructed.

The heads of the various schools have been kept informed of the presence of infectious disease.



It has been found necessary to recommend the exclusion of some of the scholars from West Molesey, Hook, and St. Matthew's Schools. The closing of Claygate Schools for a period of seven weeks, on account of Scarlet Fever, and St. Matthew's Schools for 14 days has been recommended.

Imported House Refuse, &c.—During the past year five complaints with regard to nuisances arising from imported offensive material, consisting of house refuse and butchers' or fishmongers' offal, have been received and investigated. The whole of the complaints were well founded; the refuse being dangerous to health by reason of its proximity to inhabited houses, public thoroughfares, or both.

Scavenging.—In Esher, Thames Ditton, the whole of Long Ditton, and the Southborough portion of Kingston Extra Urban, arrangements for fortnightly scavenging are in force.

Cowsheds and Dairies.—There are 37 registered Cowsheds, Dairies, and Milkshops in the district. During the past year these have been inspected at least every three months. Three have been found in a dirty condition, and statutory notices have been served to cleanse them, which have been complied with. Two milkshops were found unsatisfactory, and a caution given.

On the whole the regulations have been well carried out, and the Medical Officer considers that the Cowsheds, Dairies, and Milkshops are maintained in a very satisfactory condition.

Six of the dairy farms are supplied by well-water, the Medical Officer has analysed them, and found them all of very good quality.

Canal Boats.—The navigable water of the district extends along the left bank of the River Thames from Teddington Lock to the Borough of Kingston; and from the Surbiton District to the western boundary of West Molesey. During the past year 42 inspections have been made. All boats have been registered as

being occupied as dwellings. No infectious diseases have been found in any boat. All the regulations as regards lettering, marking, and numbering of the boats, and as regards the number, ages, and sex of the persons allowed to dwell in a boat, as well as the cubic space and ventilation, have been complied with. The cleanliness of the boats has been satisfactory.

### *Kingston Urban.*

Dr. Beale Collins commences his first Annual Report with the following remarks on the Sanitary condition of the Borough:—

The soil, position, and history of the Borough with reference to public health. The soil of Kingston is chiefly gravel, with alluvium and clay in places. The situation of the town is on the south bank of the Thames, from which it rises very gradually to the foot of Kingston Hill, whence to the Borough boundary the elevation is more abrupt. The levels are given as: 20 feet at Canbury Gardens, 29 feet at the Barracks, 100 feet at the angle in Liverpool Road, and 142 feet a hundred yards further on at the Borough boundary. The Market Place is 29 feet, the Fairfield 33 feet, and the junction of Gloucester Road with the Malden Road is 55 feet. Passing further south, Grove Road is 34 feet, and Uxbridge Road 40 feet; 40 feet is also the level of the Borough boundary in Marsh Lane near the proposed Isolation Hospital. The top of Kingston Hill is 176 feet.

The Hogg's Mill Stream enters the Thames near the Market Place, having its principal source at Ewell, where it bubbles up clear and pure from the chalk. It is probable that this supply of pure water would be gladly welcomed by the villages through which the stream passes, as well as by the town of Kingston at its mouth, had not Government in its wisdom given certain commercial undertakings the right to force indifferent water supplies at a heavy charge upon the



inhabitants. Could this stream be tapped at its source it might supply these towns and villages with a good drinking water, which, when it had served its purpose, could be turned into the stream again to flow with the land drainage, as it does at present.

Near the banks of this stream are many wells for the drinking supply of the houses, mostly of the labouring classes. The water in these wells may be affected by the character of the water in the stream, for the soil being mostly loose alluvial deposit there is opportunity for free percolation. Now this stream receives the drainage of Old Malden and various villages, practically untreated.

Within the Borough there are three mills, each of them damming back the water for about the height of 5 feet and increasing this tendency to percolate through the loose soil into the wells from which some of the inhabitants draw their drinking water.

Passing to the other side of the Borough we find in the Canbury district the remains of a stream called the Latchmere brook. This is now covered over, but apparently followed a course shown by a depression of the ground level between Richmond Road and Elm road. Here again there are more wells for supplying drinking water. In this latter district there has been a number of cases of diphtheria, and near the Hogg's Mill stream were many cases of the same disease.

The water from these wells when analysed shows varying degrees of impurity. Two analyses are rarely alike, but the average impurity is in most cases insufficient to condemn and forcibly close the well. Yet, considering the surroundings, the river close by, or the remains of the brook; the natural flow of the land water from the high ground past cesspools, farms, &c., towards the Thames; it is not going too far to brand these well waters as suspicious, and to recommend that a constant water supply from the mains should be laid on. This water, though fairly good, has not a very good reputation, and

is excessively costly, so that it is hardly a matter for surprise that many persons prefer to go on running the risk. I caution householders to boil their water, and to be extra careful when they notice any of the Sanitary Staff visiting their neighbours. Twenty-six specimens of well water were analysed during the year, of which nine were declared very suspicious, and eight bad.

Here follow comments on the condition of old houses in Kingston. Mr. Collins, by his remarks, indicates that there is a great deal of work for his department in reducing the proportion of badly sanitated houses.

118 new houses have been built during the year.

The site of the town has made the sewerage a very difficult problem, as the requisite fall is not easily attained. The institution of the separate system all over the Borough would, in my opinion, to a great extent remedy this evil, as when the house soil, and slop waste, only is taken, a much smaller sewer suffices, and the smaller the sewer the less fall is necessary in order to make the flow self-cleansing. In addition, the street washings do not mix with the soil from the houses, so that the tendency to silt up, which gives so much trouble in the combined system, is obviated. Great objections have been raised on the score of the liability to choke up by the accidental entrance of sticks, brushes, etc., but such impedimenta may be dealt with by administration of Bye-Laws, and by the interposition of sufficient inspection chambers. Mr. Adams, City Engineer of Brooklyn, has estimated that a 9 inch drain, in order to be self-cleansing, requires a fall of 1 in 248 for the separate system, and of 1 in 90 for the combined system, for the reason that in the separate system the flow would be constant, whereas in the combined system it varies, being to a great extent dependent upon the rainfall. I am not greatly in favour of ventilating sewers, as I think it much more satisfactory to disconnect every house from the main sewer by properly arranged and ventilated inspection chambers and disconnecting traps.



The Council is to be congratulated upon the installation of the Electric Light in the Borough, and I hope it will not be long before every part of the town is supplied with this cleanly and sanitary method of illumination.

My predecessor has called your attention to the want of provision of Public Conveniences. This is an urgent need in the central portions of the town, both for men and women. I rejoice that his repeated insistence upon the provision of accommodation for isolation of infectious diseases has at length borne fruit, and I hope that it will not be many months before the Borough is provided with a suitable Sanatorium.

Overcrowding.—Two cases were brought to notice, both being caused by the same family, who, having been got rid of in one place, removed to another house. They finally left the town.

Dairies.—The Dairies and Milkshops have been inspected and found to be fairly satisfactory. In some cowsheds there has been found to be not sufficient air space for the number of cows. These people have been warned and will be further dealt with, if necessary. Purveyors of milk are very numerous, and their shops have been, with one or two exceptions, found to be satisfactory.

Slaughter Houses.—These places are mostly in crowded parts of the town, and, although complying with the regulations, are far from satisfactory.

Bakehouses.—These have been inspected twice during the year, and in two cases it was necessary to communicate with the Factory Inspector for minor infringements of the Act.

Remarks.—595 visits of Inspection were made, 13 visits to schools, 25 visits to milkshops, 14 visits to slaughter houses, 78 visits to bakehouses. Total visits by Medical Officer, 725. 105 letters were written to recommend improvements, 7 notices were served.

*Wimbledon.*

Dr. Pocklington speaks of the great zeal shewn by Mr. Mayne in carrying out the duties of his office. Mr. Mayne's report is as follows :—

Bakehouses.—There are 22 retail bakehouses in the district, and these have been inspected twice during the year, when one was found to have a defective roof which admitted the rain-water, and three required cleansing and whitewashing. The usual notices were served in each case and were complied with. The other bakehouses were found to be in a satisfactory condition.

Nuisances.—A great many nuisances have been abated as will be seen in the summary accompanying this report. Defective drains and water-closets have been the chief cause of complaint.

Entirely new drains have been laid to 155 houses, and at several other houses the drains have been repaired; a good deal of drain-work is at the present time in progress, but will be accounted for in the report for 1894.

I think it well to mention that the following groups of houses have been re-drained :—

11 houses	...	..	...	North Road.
6 „	...	...	...	Handford Row.
10 „	...	...	...	Church Road.
6 „	...	...	...	South Road.
4 „	...	...	...	Gilbert Road.
11 „	...	...	...	Deburgh Road.
13 „	...	...	...	Hartfield Crescent.
4 „	...	...	...	Merton Road.
8 „	...	...	...	Dundonald Road.
5 „	...	...	...	Russell Road.
8 „	...	...	...	Dryden Road.
6 „	...	...	...	Pelham Road.
5 „	...	...	...	High Street, Merton.

And many others.



*Farnham Urban.*

Dr. Sloman reports that:—A special complaint was made in May, of a foul smell on the Station platform, due to the unloading of some manure close to the platform.

Another complaint was received in July, of a pork-butcher in Army and Navy Yard, East Street, alleging that he kept pigs for a long time together in styres, and that this caused very bad smells. The Medical Officer (Dr. Sloman) inspected this place, and consulted the Surveyor, who spoke to the butcher.

In December, he received a letter complaining of the drain being stopped at 6, St. James' Avenue; the Surveyor remedied the immediate stoppage, but says that this can only be a temporary remedy, that the drains must be relaid. He has not at present been able to induce the owner to remedy this defect, and is intending to send him a notice.

The Medical Officer understands from the Surveyor that the water supply of Red Lion Lane has not been improved during this last year, for that, though the watermain is laid down, scarcely any, if any, more houses have been connected. The deficiency of water supply to the cottage property in the town as shown by the number of houses unsupplied in Red Lion Lane, and by the large proportion of houses which have water-closets unprovided with water, as shown by the above Report, where Diphtheria and Typhoid Fever have existed, namely,  $\frac{11}{22}$ , is a serious blot on the sanitary management of the district, and he would strongly urge on the Board, to take measures for insuring a better supply in a much larger proportion of cottages.

*New Malden Urban.*

Dr. Child reports that—

During the continuation of epidemic diseases, frequent inspection of the schools, and scholars absent from school from any cause, has been carried out. The National Schools have been well cleaned and disinfected during the Christmas holidays. The Latrines of these schools are not of the best description, but he understands that this will be remedied when the contemplated enlargement of the schools takes place.

With reference to the sanitary work of the year, Mr. Davidson reports that twelve nuisances have been abated and ten cesspools done away with, 49 houses have been disinfected.

Besides this, the Medical Officer has himself paid 192 visits and inspections with good result. The ventilation of the drains, at all times a vexed question, still requires attention. He often finds the ventilation pipes are not taken high enough up, allowing a down draught.

Water Supply from the Water Company has been fairly good, and when drinking water has been found to be contaminated, the cause has generally been due to dirty cisterns or some defect in the pipes in the house.

The public are beginning to see the utility of fixing the cisterns in positions more convenient for cleaning out.

No case of overcrowding has occurred during the year, requiring any proceeding being taken out. In some districts however, such as St. John's Cottages, Havem Terrace, Avenue Terrace, these are often in an unhealthy and dirty condition.

Bakehouses. These have been systematically inspected during the year. There are five bakehouses all of which are satisfactory.

The dairies and cow sheds (nine in number) have been treated in the same way, one cowshed has been closed, and two have ceased to



supply milk, thus removing their names for the time being off the register. Some of the milk supplied comes from other districts, and at a distance. Register of these is kept for reference if needful.

The water cart used during the summer has been one of the greatest boons to the inhabitants.

### *Ham Urban.*

Dr. Donald has visited Ham 24 times during the year. Twelve of these have been ordinary monthly systematic inspections of the district, while the other 12 were special visits to enquire into some alleged nuisance or outbreak of disease. All the dairies and cow-sheds have been visited four times, and all have been found clean and well kept, although the structural arrangements of some of them leave much to be desired. One sample of water was analysed and found to be of good quality. The following is a list of nuisances abated through the action of the Medical Officer or the Inspector of Nuisances.

Paving of yards of cottages dirty and out of repair	...	...	21
Cesspools required emptying	...	...	8
Privies out of order	...	...	13
Guttering of roof out of order	...	...	1
Offensive collection of manure	...	...	1
Drains blocked or out of order	...	...	5
Dustbins to be repaired	...	...	10

### *East Molesey Urban.*

Water Supply.—The water supply of the great majority of houses is that from the Lambeth Water-Works Company. A few wells still remain, but, with the cesspool system of drainages still in vogue, it would be better if a supply from the Water-Works Company were used instead, when the wells exist.

Inspections.—Each month the Medical Officer has reported to the Authority the details of Inspections of the District. The results of such

inspections are shown in the Table of the Inspector of Nuisances, who always accompanied the Medical Officer. The Inspections have been systematic, and many Sanitary improvements have been the result. But, though much work has been done, more still remains to be undertaken. And, with the system of main-drainage now within measurable distance of completion, it is important to remember that many houses in the district must have their old-fashioned sanitary arrangements entirely re-organised before they will be fitted for connection with a main sewer.

The Sanitary Inspector's Report for the Year ending,  
December 31st, 1893.

Number of Premises inspected under Section 92 of the Public Health Act, 1875	...	...	...	...	...	...	145
Number of Nuisances discovered	...	...	...	...	...	...	44
Number of Nuisances remedied without being reported to the Sanitary Authority	...	...	...	...	...	...	8
Number of Nuisances reported to the Sanitary Authority	...	...	...	...	...	...	36
Number of Nuisances remedied after report	...	...	...	...	...	...	28
Number of Nuisances reported but yet remaining to be remedied on December 31st, 1893	...	...	...	...	...	...	8
Number of Preliminary Notices served by the Inspector of Nuisances for the abatement of Nuisances	...	...	...	...	...	...	23

*East Grinstead Rural.*

Dr. Fussell reporting on Lingfield, says :—"In the village street  
 " the Public Company's water is being gradually laid on to the  
 " houses; such connections should not only be insisted upon where  
 " there is evidence of impure water, but should be generally  
 " encouraged, because, from the proximity of cesspools, 'drinking  
 " 'water may be good one week and bad the next.' We are indebted  
 " to the resident Medical Practitioner, who takes the sewage from  
 " the large public schools and disposes of it on his land by irrigation."



*Barnes Urban.*

Dr. Adams, this year, gives a report of the district reduced by the absorption of two Parishes and a part of a third into the Borough of Richmond, thus reducing the population by nearly one-fourth.

The Urban powers with which the remaining portion is invested are an advantage, particularly with respect to the Sanitary work, which can more satisfactorily be carried through by a combined Board, and with one set of officers under one control. As in former years, he has made inspections and house to house visitations in different localities, especially where there has been an unusual amount of sickness. It has happened in very few instances where there has been an outbreak of sickness that it could be traced to sanitary defects, in almost every instance the drains and water supply have been satisfactory; in fact, the drains throughout the district have been carefully examined and disconnected from the sewers. The Inspector of Nuisances has very carefully and constantly inspected the district in a most efficient manner.

The substitution of upright for surface ventilators has proved so thoroughly successful in every case where the change has been effected, and it is so decided an improvement that it is advisable to complete the work throughout the district. The most unsatisfactory and unhealthy localities are those which have private roads; there are few private roads that are not a nuisance from being badly kept, and some, during bad weather and after heavy rain, become injurious to health from the quantity of stagnant water and foul mud. The remedy is in the hands of the Board now that they have Urban powers. The roads under the control of the Board are kept in admirable order, and are a great contrast to the private roads.

Four wells, the water from which the Medical Officer analysed and found contaminated, have been closed, and a better supply substituted. Also some wells, the water from which he analysed

some time ago, have been closed, and the Company's water laid on after some delay, in consequence of the mains not being within easy distance.

The Dairies, Cowsheds, Bakehouses, and Slaughterhouses have been inspected at intervals. The Dairies are, without exception, kept in a very clean and satisfactory condition. The Cowsheds which are in use have very much improved during the past few years, but many of the dairymen have given up keeping cows or keep only one or two instead of a number; they procure their milk from the large dealers. The Bakehouses are kept in good order and cleaned and lime-washed at regular intervals, but some are underground, which is a most unsatisfactory arrangement. The Slaughter-houses are mostly well arranged and kept in good order, but a large proportion of the meat sold in the district is procured from the Dead Meat Market, and many of the Slaughter-houses are little used.

There has been very little increase from the erection of new houses; a few have been built in Barnes, and there are two or three in course of erection in Mortlake.

#### Report of Inspector of Nuisances:

Notices have been served to abate 554 nuisances in the District for the year 1893, as against 939 for the year preceding. The total number for Barnes was 155, as compared with 487 in the year 1892, and 399 for Mortlake as compared with 452.

Forty-three notices have been served, requiring owners to connect their drains with the Authority's sewer.

Complaints of non-removal of dust under the late contractor were exceedingly few, and the work carried out very satisfactory.



There have been but four instances of persons refusing to do the necessary work to abate nuisance, and against whom summonses had to be taken out, and magistrate's orders obtained.

THOS. GRYLLS,

Inspector of Nuisances to the  
Barnes District Local Board.

Dr. Lorimer reports under the head of Proceedings under the Sanitary Acts and Systematic Inspection.

I am glad to be able to report that at length the undertaking to supply Frimley, Camberley, and York Town with an ample supply of good water, has received the sanction of Parliament. I congratulate the inhabitants and hope that they will heartily support the company. The supply of good water will immensely benefit the whole district.

Bartram's Works.—Great complaints having been made as to the nuisance created by these works, the authority have, with the assistance of Dr. Seaton, Medical Officer of the County Council, inspected the works and advised the company. Many improvements of an extensive nature have been made, and the directors have shewn every disposition to meet the Sanitary Authority in every way.

Dr. Woodford encloses the following Sanitary Inspector's return for the Surrey Parishes of the Windsor Rural Sanitary District (Egham and Thorpe) for 1893.

No. of premises inspected	...	...	...	...	...	273
„ surveyed in detail...	...	...	...	...	...	4
Nuisances discovered ...	...	...	...	...	...	89
Formal notices served	...	...	...	...	...	4
*Summonses and Convictions	...	...	...	...	...	16
No. of premises where nuisances abated	...	...	...	...	...	83

Viz.—as to privies W. & E. closets ... ..	36
„ Drains ... ..	9
„ Swine, &c. ... ..	1
„ Cow-slaughter and bake-houses ... ..	—
„ Deficient and impure water supply ... ..	21
„ Houses foul or dilapidated ... ..	4
* „ „ closed as unfit for habitation... ..	14
„ Foul ditches and streams ... ..	2
No. of premises disinfected after infec. dis. ... ..	45
Samples of water sent to M.O.H. for analysis ... ..	21
Earth or pan closets provided... ..	—
Water supply provided or well cleansed ... ..	21
Cow-houses and milk shops registered ... ..	1
„ „ inspected... ..	11
Piggeries and slaughter houses ditto ... ..	4
Bake-houses ... ..	3
Canal Boats ... ..	3

W. MENZIES,  
Sanitary Inspector.

\*Fourteen of these summonses were for the purpose of obtaining closing orders for Armstrong's Cottages at Englefield Green (reported on in 1892), and the remainder were in connection with apportionments for making up the road in Hammer Lane, Egham.

### *Godalming.*

Dr. Parson reports:—"I have made systematic inspections of various parts of the district during the year, and have arrived at the conclusion that in several places in Farncombe, Meadrow, Catteshall (some parts of the town), Crownpits, and Holloway Vale, the closet accommodation is insufficient and the removal of the contents of the pails inadequate to the requirements of the inhabitants of those localities. As a rule, no earth or ashes are used, and slops are often added to the pails which cause them to overflow. The gardens are often very small, and soon become saturated with filth from the slops and refuse thrown upon them. I suggest there should be more closets, and that the pails should be



emptied oftener, and proper earth supplied for use in them. I am informed that the men employed have to work at night in emptying the cesspools and pails, and by day in removing house and trade refuse. I think there should be an alteration, so that one set of men should perform the night work and another employed for the day.

In Holloway Vale the cesspools have often been found overflowing, and in one case the contents of the cesspool flowed back into the sink drain.

A license has been granted to a new slaughter-house in the town.

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## THE PREVENTION OF RIVER POLLUTION, PROGRESS IN SEWERAGE SCHEMES, &c.

The reports made to the Council on this important subject during the year, under notice, include those on *The Tillingbourne*, *The Cranleigh and Bramley River*, *The Wey* at Godalming and Guildford, *The Wandle* at Waddon, The Croydon Gas Works, Beddington, Carshalton, Hackbridge, *The Mole* at Reigate, Dorking, and Leatherhead, *The Hogs Mill* at New Malden, *The Beverley Brook* at Worcester Park, and Barnes.

It should be explained that the numerous reports and the larger amount of time devoted to the Tillingbourne, have been necessitated by the fact of this case of the prevention of River Pollution, in connection with Village Sanitation, being in a sense a test case. The importance of the issues raised at Gomshall and Shere are a matter of concern to a vast number of village populations generally, and cannot be regarded in anything but a very serious light.

The following are extracts from reports to Local Authorities in 1893, dealing with questions of River Pollution and its prevention in various parts of the County of Surrey.

*The Wandle.*

Dr. Jacob, in his Annual Report to the Carshalton Local Board, says :—As to the proposed Works of Sewerage and Sewage-Disposal. In January the Local Government Board caused a public enquiry to be held at Carshalton by Mr. S. J. Smith, one of their Inspectors, into the Sanitary Authority's petition to be allowed to acquire compulsorily under the Lands Clauses' Consolidation Acts, for the disposal of the sewage of their district, certain lands situated outside their district and in the parish of Mitcham. The scheme was strenuously opposed by the owners of the land and by the Sanitary Authority in whose district it is, but the Board, in May, issued their Provisional Order enabling the Authority to put in force the provisions of these Acts, and in July the Order was confirmed by Parliament. Afterwards, the Authority decided to go on with the scheme, and instructed Mr. Baldwin Latham, their Engineer, to prepare detailed plans and estimates of the sewers and outfall works.

Dr. Mair reports.—A complaint was made towards the close of the year, that the River Wandle at Beddington Corner was being polluted by the effluent from a Leather Factory, near at hand, in Carshalton Parish. An analysis of the effluent was made, with the result that it showed that a large amount of organic matter was finding its way into the river. The facts were reported to the Surrey Council.

Many complaints have been made, mainly to the Local Government Board as to the condition of a stream in the Parish of Mitcham, called the "Graveney Brook." At one time this Brook received the contents of many sewers, but all have probably been now disconnected, and only surface-water drains are supposed to discharge into it. In dry weather there is a very small quantity of water in the Brook, but after rain, the volume of water becomes very large,



by far the largest quantity of it being due to the contents of a "storm-sewer," belonging to the London County Council, and discharging into it at Streatham Lane.

The state of the Brook is not satisfactory, and the bed requires frequent cleansing by the Authority. The above sewer is under observation, and I have instructed the Inspector to take samples of its effluent with a view to analysis. It is by discovering the sources of the pollution of this Brook, and securing their removal that its condition will be improved, and as the Brook is a tributary of the Wandle, the matter is important. It was suggested that the Authority should take proceedings against the adjoining owners of property, under the Nuisance Sections of the Public Health Act, but I advised the Authority, with the concurrence of the County Medical Officer, that the condition of the Brook was not such as would justify these proceedings.

Quite lately, a peculiar source of pollution has come to light. In the lonesome district of Mitcham Parish, is a Chemical Factory, and into an adjoining ditch, at two points, two clear waste liquors enter. One consists of a weak acid solution, while the other consists of a clear solution of a Hyposulphite. When these two liquors come into contact with each other, precipitation of Sulphur takes place, and some Sulphuretted Hydrogen gas is formed.

The result of this chemical reaction is that the contents of the ditch, which eventually find their way into the Graveney Brook, have become offensive, and have given rise to complaints, while a thick whitish-yellow deposit is taking place along a gradually increasing length of the bottom and sides of the ditch.

Representations have been made to the proprietor of the Factory, and he has promised to construct apparatus whereby the Sulphur will be precipitated before the waste liquors enter the ditch.

Should he fail to carry out his promise the matter will be brought to the notice of the Authority.



A large scheme of sewerage was carried out some years ago for the Parishes of Beddington, Wallington, Mitcham, Merton and Morden, and more recently sewers were also constructed for the Purley district, in the parish of Coulsdon. The last-named join the Croydon system, but the former converge to two levels at the Sewage Works in Colliers-wood, Mitcham, which together furnish the outfall, to be treated on about 26 acres there. The population of these parishes was estimated at the middle of last year to be 24,000, so that there is about one acre of land available for the sewage of 925 persons. The system employed at the Works is "Intermittent Downward Filtration," not preceded by any chemical precipitation, and such an amount of land ought to be sufficient. The reverse has, however, been the case for some time past, mainly on account of the immense volume of sub-soil water which finds its way into the sewers in various parts of the district. As surface water is largely excluded from the sewers, the volume of sewage, which, under normal conditions, should require treatment, is, for the above population, about 700,000 gallons daily, but it appears that the actual volume in dry weather is  $1\frac{3}{4}$  millions of gallons, whilst in wet weather, it amounts to no less than 4 million gallons.

It is not surprising, therefore, that the Works have been over-taxed, and that the effluent is far from satisfactory; and matters wore such a grave aspect, that after a special report by the Surveyor, Mr. Chatterton, C.E., was asked to investigate the matter, and make what recommendations he thought would meet the case.

In the parishes other than those I have named, drainage is disposed of in cesspools, and there is much reason to fear that the majority are not properly constructed. Bye-laws relating to the construction, position, ventilation, and cleansing of cesspools are in force in the drainage district only, and it is of much importance that they should be extended to all parts of the district without delay.



Where complaints are made, steps are taken to secure the proper construction of new cesspools, and in case of new buildings, similar precautions are also taken.

### *Sutton.*

The comprehensive Works of Sewerage and Sewage-disposal which were commenced in the year 1891 were finished during the early part of the year under review, and by April were ready for the reception and treatment of the sewage.

The sewage has since been treated at the outfall by precipitation with milk of lime and solution of Ferrous Sulphate, by the filtration of the tank-effluent through artificial filters (one of sand, polarite, and gravel; one of sand and coke breeze; and one of sand and gravel), and by the irrigation of the filtered effluent over the farm-land, with the result that a good effluent has always passed into the Pyl Brook.

The sewage, on entering the low level sewers, has also been deodorized by placing Mr. Reeves' apparatus at the head of ten of these sewers.

### *The Mole.*

Dr. Jacob reports that, at *Reigate*, good progress was made during the year with the task of constructing the tanks, erecting the buildings, providing the machinery, and executing the other works necessary for treating the whole of the sewage of the Borough by precipitation, before passing the clarified liquid on to the land, and for pressing the sludge, etc.

*At Horley.*—During the year the task of laying the necessary sewers in the village of Horley, and of providing tanks and pumping machinery, and of doing the other outfall works was completed; and, before the end of the year, the drains of 74 houses



were connected with the sewers, the sewage being treated by subsidence in tanks, and subsequent irrigation over a portion of the land which had been laid out for that purpose.

*At Nutfield.*—In January, the Local Government Board, as the result of the public enquiry which they had caused to be held in the previous September, expressed their opinion that the sewers which had been made at South Nutfield, by Sir H. Edwards, are vested, under Section 13 of the Public Health Act, 1875, in the Sanitary Authority, and Sir Henry intimated to the Authority that, after a certain day in February, he would no longer be responsible for the treatment of the sewage prior to its discharge into the streams adjoining the two outfalls at Nutfield Park, and at Hale Farm. The Authority accordingly took over the care of the sewers, and of the small coke filter and osier beds which had been provided at one of these outfalls, and they afterwards opened negotiations with Sir Henry for the lease of an additional two acres of land at Hale Farm, but nothing was finally settled about it before the end of the year.

*As to the Sewage Disposal of Dorking Town.*—In March the Local Government Board caused a public enquiry to be held at Dorking, into the proposal of the Sanitary Authority to spend £6500 in carrying out the additional Outfall Works at Pixholme, which had been recommended by Mr. Lemon, C.E., for the better disposal of the sewage of the district, and in due course sanctioned the loan for that purpose. During the course of the year these works were all duly executed.

*At Epsom Town.*—To prevent the nuisance and the pollution of a tributary of the Mole, caused by the discharge of the wastewater of about 40 cottages in an outlying part of the Common, from a sewer, into a ditch forming the boundary between this district and the parish of Ashted, the Sanitary Authority in May adopted the plans submitted by their Surveyor for extending the Sewer,



precipitating the sewage in tanks with "alumino-ferrie cake" and filtering the clarified water through an artificial filter of sand and gravel. By the end of May the works were completed and brought into use, and a satisfactory effluent has since been obtained. Every four months the tanks have to be emptied and the upper part of the filtering material renewed.

The effluent water from the Authority's Sewage Farm appeared at all times to the Surveyor to be so satisfactory that he did not think it necessary to send me any samples for analyses during the year.

#### *Merstham.*

Early in the year, the Sanitary Authority were asked by the owners of the Dean's Road Estate, in this parish, to take over, and to provide an outfall for, the sewers which have recently been constructed for the development of that estate, on which a considerable number of houses have already been built. They accordingly consulted Mr. John Anstie, C.E., on the subject, and ultimately decided (1) to abandon the simple and inexpensive method, which they have adopted since 1880, of treating the sewage of the village by irrigation (without the cost of pumping) over a grass meadow near the estate; (2) to connect their outfall sewer with the main sewer on the estate, and to extend the latter to a point near the south-east corner of the parish; (3) at this spot to purchase three acres of land, which the owner was willing to sell them, for the treatment of the sewage; (4) to pump the whole of the sewage into tanks on this land, in which it will be precipitated by chemicals; and (5) to dispose of the clarified sewage by irrigation over the rest of the land. They then applied to the Local Government Board to sanction a loan of £2,500 for the purchase of the land and for carrying out the works. In October the Board caused a public enquiry to be held at Merstham, into the matter of the application, and afterwards intimated their intention to sanction the loan if two more acres of land were acquired.



*Capel.*

The nuisance caused by the fouling of the ditch in Vicarage Lane, Capel, and of the ditch at the back of certain houses on the south side of the village street, by the sewage of numerous houses in those parts of the village, I pointed out that the drains, which were discharging into the ditches were probably sewers vesting in the Sanitary Authority, and suggested to them that, if the levels permitted (which the Surveyor ascertained was the case), the sewage should be treated at the outfall of each sewer by precipitation with alumino-ferrie cake, or with crude sulphate of alumina, and by filtration through small artificial filters of sand and gravel, but the Authority gave notice instead to the various owners to stop the flow of sewage into the ditches and to construct cesspools, without overflows, on their own premises. This was largely done, and I await the result with same anxiety.

*Ockley.*

The nuisance caused by the discharge of the sewage of numerous houses surrounding Ockley Green, into the ditches on the edge of the Green, some steps should, I think, be taken to minimise this evil before the return of the hot weather.

*Bentsbrook.*

The fouling of the watercourse at Bentsbrook by the discharge of the sewage of houses at Flint Hill into the road-drain.

*The Wey.*

The discharge of the sewage of about a dozen houses at Abinger Hammer either directly, or by the overflows of cesspools on the "Marsh," into the Tillingbourne Brook. The Surveyor, by the Authority's instructions, prepared a scheme for laying a sewer at the Hammer and conveying the sewage of these and of other houses there to a part of the Common just outside the district, but



the cost was considered, both by the Authority and by those private persons who had offered to contribute towards it, to be prohibitive, and the owner of these houses has since "cut off" all the drains which were discharging into the stream and has caused them to empty into "wasting" cesspools on the Marsh.

As to the Pollution of the Tillingbourne Brook by the sewage of Gomshall, Shere, and Albury.—Early in the year the Sanitary Authority received further communications on this matter from the Local Government Board and from the Surrey County Council, and in consequence of a formal complaint from a ratepayer that the Authority had not made the necessary sewers at Gomshall and Shere, the Local Government Board, in September, caused an inquiry to be held at Shere, by Colonel Ducat, R.E., but they had not given their decision on the matter before the year closed. In the meantime, by voluntary action, and without any charge upon the rates, a good deal of work had been done at Gomshall and Shere by the conversion of water-closets and open cesspit privies into pail closets, which are emptied periodically, and by the disposal of the sink and slop water, which used to run into the road drains or directly into the stream, either on the gardens or by filtration through polarite filters. At Albury, also, cesspools had been constructed and arrangements made for emptying them periodically by a pneumatic cart.

Woking Station.—As steps were being taken for forming the parish of Woking into an Urban Sanitary District, the Sanitary Authority did not take any further steps in this matter, and during the last quarter of the year the parish was so constituted, and ceased to be part of this district.

Stoughton, Bellfields, and adjoining parts of the parish of Stoke.—Early in the year Mr. Lailey, C.E., presented his scheme for providing the requisite sewers in this part of the district, and for conveying the sewage to the outfall, which had been selected for



the sewage of the Borough of Guildford, but the estimated cost was considered too great to be borne by so small a district.

As to the Pollution of the Water-courses by the Sewage of Ripley.— In March, and again in June, the attention of the Sanitary Authority was directed to this matter by the Thames Conservancy Board.

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Reference to the important works carried out at Cranleigh is reserved for Special Reports, when the series of tests and experiments now in progress are completed.

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#### CONCLUDING REMARKS.

There are certain unavoidable imperfections in this Report, due to the fact that it has to be issued to the Council before May 8th. The importance which is attached by the Council to the early issue of the Report is a reason for their Medical Officer having spared no efforts to further its production. There has been no small difficulty in doing this, many of the district reports not having reached the Council till the end of March. Even now (April 30th), at the time of revising proofs for printers, the report for one large district has not yet been sent in, although, in that instance, by the courtesy of the Medical Officer of Health, the Council's Medical Officer has been furnished, in advance, with the Statistical Returns.

The report is arranged, as far as possible, under headings indicating the subject matter of the Section. The order of the Sections will be seen by reference to the table of contents at page 1 of the Report.

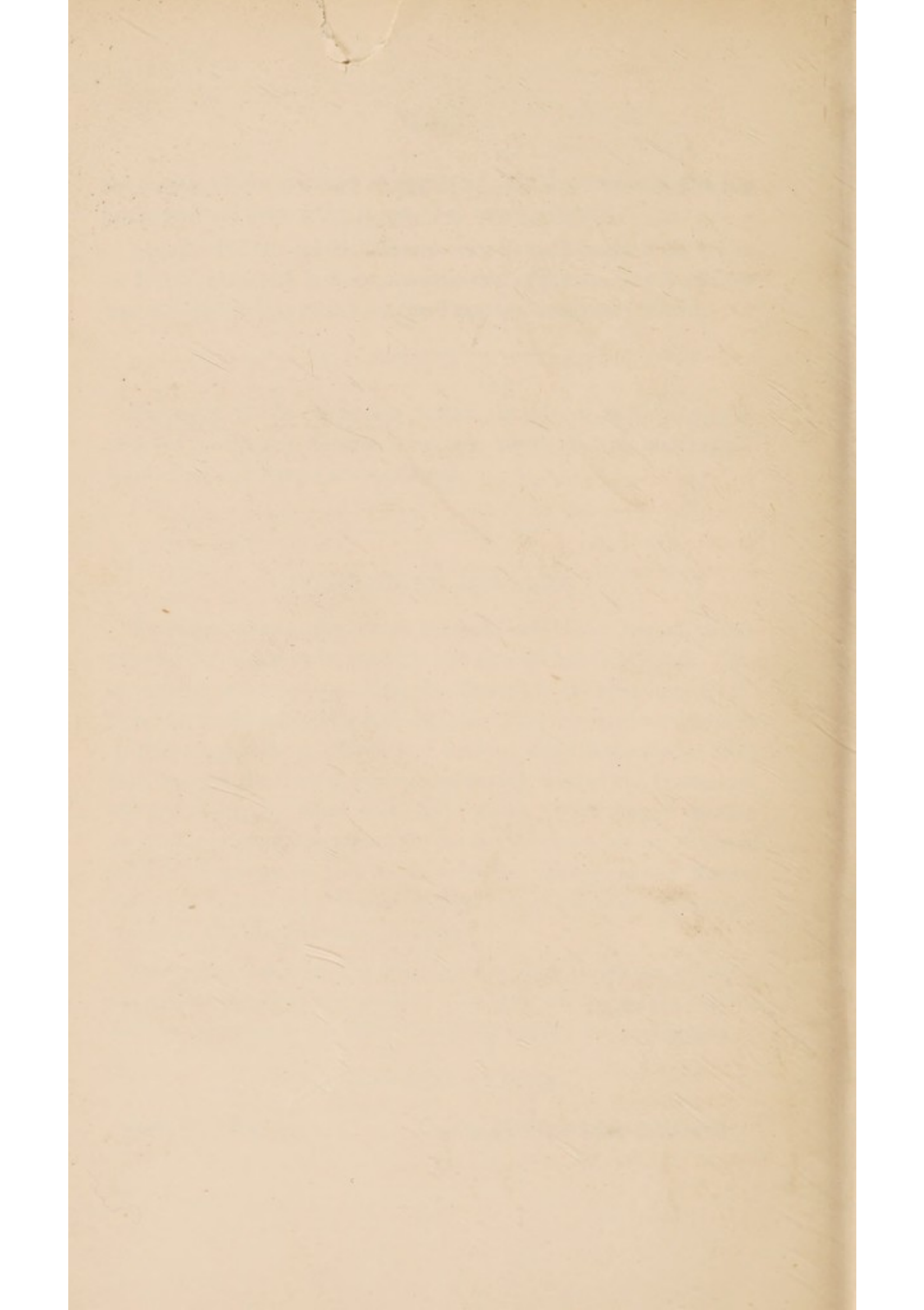
EDWARD SEATON,

*April 30, 1894.*

*County Medical Officer of Health.*









MAY 8th, 1894.

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*SURREY COUNTY COUNCIL.*

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REPORT

OF THE

SANITARY COMMITTEE.

## REPORT OF THE SANITARY COMMITTEE.

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*Dr. Seaton's Annual Report is printed separately.*



8th May, 1894.

THE REPORT OF THE SANITARY COMMITTEE to the County Council of the Administrative County of Surrey, at their Meeting to be held on Tuesday, the 8th day of May, 1894, such Committee consisting of—

HENRY YOOL, Esq., *Chairman.*

G. P. BIDDER, Esq., Q.C.  
LIEUT.-COL. R. J. CALLWELL.  
G. CAVE, Esq.  
G. CHATTERTON, Esq.  
J. COOPER, Esq.  
ADMIRAL THE HON. F.  
EGERTON.  
SIR DOUGLAS FOX.

E. J. HALSEY, Esq.  
SIR TREVOR LAWRENCE, Bart.  
LIEUT.-GEN. F. MARSHALL,  
C.M.G.  
E. H. LEYCESTER PENRHYN,  
Esq.  
S. M. RICHARDS, Esq.  
W. WELCH, Esq.

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NOTIFICATION OF INFECTIOUS DISEASES ACT.

The Committee have satisfaction in reporting that the above Act is now in operation throughout the County, and they approve a recommendation made by the Croydon Rural

Authority for the preparation and issue of a monthly return of cases reported, such return to be privately circulated to the several Medical Officers of Health in the County. The Committee have requested Dr. Seaton to communicate with both Dr. E. L. Jacob and the Medical Officers of Health, and to invite their co-operation.

### ISOLATION HOSPITALS.

The Local Government Board have held inquiries into a proposal made by the Epsom Joint Hospital Board, to obtain a site for the purposes of an Isolation Hospital on land adjoining Banstead Downs, and into a proposal made by the Town Council of Richmond in conjunction with the Heston and Isleworth Local Boards to obtain a site for the same purposes on land at Hounslow. The decisions of the Local Government Board had not been given at the date of this report.

### RIVERS POLLUTION.

#### THE RIVER WANDLE.

The Carshalton Local Board have, in reply to a letter of inquiry, informed the Committee that they are now taking steps to carry out the scheme which has been sanctioned for sewerage of the district, and which will prevent any further pollution of the River Wandle by the sewerage of Carshalton. Other pollutions and alleged pollutions of this river are receiving careful attention.



## THE BEVERLEY BROOK.

A letter has been received from the Clerk of the Epsom R. S. A., stating that a scheme for the Sewerage of Cheam and Cuddington will be immediately submitted to the Local Government Board.

## THE RIVER MOLE.

## LEATHERHEAD.

The Committee have received a communication from the Clerk to the Epsom Rural Sanitary Authority, stating that application having been made to form a Local Board for Leatherhead, the Rural Sanitary Authority do not consider it advisable to promote a Sewerage scheme for the District. The Committee, under the circumstances, cannot at present advise the Council to take any proceedings, but they are satisfied that, both from considerations of the sanitary condition of the town and of preventing pollution of the river, sewerage works are urgently required.

## COBHAM TILT.

The Thames Conservancy have called attention to pollution from certain Houses situate at Cobham Tilt, and Dr. Seaton has reported that some of these Houses are in insanitary condition. The Committee are in communication with the Epsom Rural Sanitary Authority on the subject.

## THE RIVER WEY.

In the Report of the Medical Officer of Health, particulars are given respecting the works in progress for preventing

sewage pollution of the Wey and other rivers, and improving the sanitary condition of the districts adjoining.

### THAMES CONSERVANCY BILL, 1894.

The Committee are informed that the clauses in this Bill affecting the Sanitation of the County, are receiving the careful attention of the Parliamentary Committee.

### HOUSING OF THE WORKING CLASSES ACT.

The Croydon Rural Sanitary Authority have obtained orders closing three Insanitary Dwellings at Mitcham, and the Committee have received a letter from them acknowledging the valuable assistance of the County Medical Officer.

### LOCAL GOVERNMENT BOARD INQUIRIES.

A communication has been received from the Staffordshire County Council respecting the desirability of the Local Government Board giving official notice to County Councils of inquiries about to be held in their Counties, and this Committee, having felt the disadvantage of such information not being given, **recommend** the Council to request that the name of this County Council may be added to the list of Authorities, to whom notice is to be sent.

### BARTRAM'S BONE MILLS.

The proprietors of these works have carried out several important improvements, and they are now reported to be satisfactory.



## ALDERSHOT SEWAGE WORKS.

Dr. Seaton made several inspections of these works, and had communications with the officials concerned. He was also present throughout the hearing before His Honor Judge Lushington, of the proceedings taken by the Hartley Wintney Rural Sanitary Authority against the Aldershot Local Board, respecting the alleged pollution of the Blackwater.

Three penalties of £20 each were imposed, and costs were awarded, to be paid by the Aldershot Local Board.

The defendants called Major Tulloch, Chief of the Engineering Department of the Local Government Board, who it appeared had held an Inquiry in 1890 into an application by the Local Board for a certificate under Sec. 12 of the Rivers Pollution Prevention Act, 1876. Such certificate was not given; but Major Tulloch, in the course of his evidence in the recent proceedings, made the following statements, which indicate the difficulty of obtaining evidence of default or neglect on the part of those responsible for the management of sewage works.

His Honor Judge Lushington to Witness: "I must ask you  
"if, supposing last September on one occasion, and last  
"December on two occasions, samples were taken from the  
"mouth of the effluent drain, which gave bad results on  
"analysis; would you draw no inference from that as to the  
"system?" Witness: "None at all. Samples ought to be  
"taken every day throughout the year. Those days might be  
"most favourable to one party, or they might be most favour-  
"able to the other. You could not possibly form an opinion

“on three samples, or even six or a dozen. They ought to be  
 “taken every day.” Question : “If you took six samples and  
 “they were all good, you could form no opinion?” Answer :  
 “It entirely depends on how you selected the days. Suppose  
 “you selected dark rainy days, when the atmosphere was  
 “saturated with moisture, they would be entirely different  
 “from the analysis of some taken on bright clear days and  
 “dry days.” Question : “If the days are taken at random, you  
 “attach no importance to the samples?” Answer : “They may  
 “be selected perfectly bonâ-fide, but the conditions of the  
 “atmosphere may be such as to favour one side or the other.  
 “The true way to take samples at all sewage works is to take  
 “them every day.”

His Honor Judge Lushington visited the works, and there can be little doubt that the condition in which he found the site of the Sewage Works, even at the date of the action, had considerable influence on his decision.

### MILK EPIDEMIC AT RICHMOND.

A report by Dr. Seaton upon the outbreak in February last, which, by the prompt action of the Local Authority, was stopped, is given in the Appendix.

Dated this 17th day of April, 1894.

HENRY YOOL,

*Chairman.*

*Dr. Seaton's Annual Report is circulated separately.*



## APPENDIX.

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### *Report on a "Milk Epidemic" of Scarlet Fever in the Borough of Richmond, in the County of Surrey.*

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Early in February, I was consulted by the Medical Officer for Richmond, with reference to an Epidemic of Scarlet Fever on Richmond Hill. The nature of the epidemic or outbreak, and of the measures taken to stop it, will be gathered from the following Reports, the first of which was drawn up by Dr. Rowland, in consultation with myself, for the information of the Local Government Board :—

During the month of January, up till the 29th, only four cases of Scarlet Fever had been notified in the town. [In the previous three months the numbers were as follows :—October, 10 ; November, 6 ; December, 7]. In the ten days commencing January 30th and ending February 8th, there were 55 cases. Out of these 55 cases, enquiry showed that 52 were on one milk supply. The number of households attacked was 26, the total number of houses supplied being 416. The total number of houses in the Borough exceed 6000. The case therefore stood thus, that  $\frac{17}{18}$ ths of the cases occurring in the town during the time referred to, were within an area of one milk supply, which supplies less than  $\frac{1}{14}$ th of the houses in the Borough. I communicated these facts to Dr. Seaton, the Medical Officer of Health for the County, and he came to Richmond and conferred with me thereon. We agreed that the above constituted a very strong *primâ facie* case against the milk. The matter was duly reported to a special meeting of the Health Committee, convened on February 12th, together with a statement by the Dairyman as to the source of his milk supply being from three farms in the country, in the Rural Sanitary District of Buckingham, confirmed by the whole-sale contractors, Whiteman and Cox, Notting Hill. At the meeting, it



was decided to call upon the Dairyman to show cause why he should not abandon his supply. At a meeting subsequently held on the 14th, at which the Dairyman attended, he satisfied the Committee that, in accordance with a request previously made by me, he had changed the source of supply. A searching enquiry has been made in regard to the health of the Dairyman and his family, and the persons employed in the business, with the result that the closest scrutiny failed to reveal any illness or suspicious circumstances which might in any way (locally) account for the infection of the milk.

JOHN T. ROWLAND,

Medical Officer of Health to the Urban Sanitary  
Authority of Richmond, Surrey.

*Dated February 16th, 1894.*

The Health Committee reported as follows, at the Meeting of the Richmond Town Council, held on March 13th, 1894 :—

Dr. Rowland reported that there had been 57 cases of scarlet fever in Richmond since 28th January last, which he attributed to the milk supply, 54 of the cases having occurred in households supplied by one particular dairy. He reported further, that he had ascertained from the Medical Officer of the District from which the milk came, that scarlet fever was prevalent there. Dr. Seaton, County Medical Officer, who was present at the committee meeting, said that it was the strongest *prima facie* case of scarlet fever through milk supply that could be furnished. It was resolved, that a statutory notice be served on the Dairyman to attend before the Committee on the 14th February. Dr. Seaton was then again present. The Dairyman who had supplied the milk stated that the cows on the farms from which he received the milk were found to be healthy, and none of the people employed on the farms were known to have had the fever. Nevertheless, he had now changed his milk supply, and undertook not to receive milk from the district from which he originally received it, without giving a week's previous notice to the Town Clerk. It was subsequently resolved, that the particulars which had come to the knowledge of the Committee as



to the outbreak of scarlet fever, be communicated at once to the Local Government Board. The outbreak has now subsided. No deaths occurred.

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I have to add to the above Reports that, after a considerable amount of correspondence in February and the beginning of March, it was arranged that I should visit the district in Buckinghamshire from which milk supplies are sent to Richmond. This I did on March 9th. I received most valuable assistance from Dr. De'ath, of Buckingham, who gave up his professional engagements for the day in order to facilitate my visits and enquiries, and also from Dr. Benson, of Steeple Claydon. There was and had been a good deal of scarlet fever in the villages of Claydon, Bucks, but I was quite unable to learn of any case of scarlet fever among those directly concerned with the milk business. It must, however, be remembered that my enquiries were made at a considerable distance of time (5 or 6 weeks) from the date at which the mischief occurred, and that under the most favourable conditions such enquiries often fail to show the source of infection, although, as to the fact of infection in such cases, there could have been no reasonable doubt. My visit, however, revealed a state of things to which it is desirable to draw public attention, viz., the insanitary conditions prevailing at certain dairy farms in Buckinghamshire. Taking, in illustration, one of the dairy farms which I visited with Dr. De'ath, and respecting which I made short notes at the time, I should describe the conditions in wet weather as being "extremely filthy." I was an eye witness to the fact that some 36 cows had to wade through filth, liquid and semi-liquid, about knee-deep, on their way to the milking sheds. It is easily conceivable that, under these conditions, filth, possibly of a harmful nature, must find its way into the milk pails. It seems to me, after what I have seen, that public attention should be drawn to the condition of dairy farms generally which are unsanitary, and which are to be considered by the light of existing knowledge, *dangerous to the Public Health*.

I consider that the Richmond epidemic illustrates most remarkably the great advantage arising from the systematic Notification of

Infectious Diseases by the early detection and prevention of epidemics. I am also of opinion that much credit is due to the Medical Officer of Health for Richmond for the vigilance which he displayed, and to the Health Committee of the Corporation for the prompt action which they took under advice.

My best thanks are due to Dr. De'ath, of Buckinghamshire, who, besides devoting a considerable amount of time to inspections, inquiries, and correspondence, afforded me the advantage of his valuable co-operation on the occasion of my visit to Steeple Claydon and also to Dr. Benson, who very kindly accompanied us.

(Signed) EDWARD SEATON.

*April, 1894.*





SUTTER COUNTY COUNCIL

REPORT

OF THE

GRAND JURY



MAY 8th, 1894.

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SURREY COUNTY COUNCIL.

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**REPORT**

OF THE

*Executive Committee under the  
Contagious Diseases (Animals) Acts.*

740  
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—  
21/4/94

**REPORT OF THE EXECUTIVE COMMITTEE  
UNDER THE CONTAGIOUS DISEASES  
(ANIMALS) ACTS.**

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8th May, 1894.

REPORT OF THE EXECUTIVE COMMITTEE  
under the Contagious Diseases (Animals) Acts  
to the County Council of the Administrative  
County of Surrey, at their Meeting to be held  
on Tuesday, the 8th day of May, 1894, such  
Committee consisting of—

EDWIN ELLIS, Esq., *Chairman.*

H. B. BUDD, Esq.	E. J. HALSEY, Esq.
E. BYRON, Esq.	H. J. B. HOLLINGS, Esq.
G. CAVE, Esq.	J. A. HUMPHERY, Esq.
J. F. EASTWOOD, Esq.	W. LEE, Esq.
W. R. G. FARMER, Esq.	E. H. LEYCESTER PENRHYN, Esq.
J. J. GOSSET, Esq.	J. SIMMONS, Esq.
G. W. G. LEVESON-GOWER, Esq.	H. LEE STEERE, Esq.

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ACCOUNTS.

The Committee have examined and passed the Accounts of the several Sub-Committees, amounting to £184 16s. 5d. which will be laid before the Finance Committee.

## COMPENSATION.

The following sums have been paid during the quarter upon orders drawn by the under-mentioned Sub-Committees for Compensation in respect of Animals slaughtered :—

## CROYDON R. S. A.

	£	s.	d.
Mrs. Steele—42 Pigs in contact with affected Animals .. ..	71	12	0

## SURBITON U. S. A.

W. Wiles—6 Pigs affected with Swine Fever .. ..	5	3	0
	<hr/>		
	£76	15	0
	<hr/>		



## RETURNS.

The following is a summary of the Returns of the Inspectors and Sub-Inspectors during the past quarter.

AUTHORITY.	Officers.	Number affected at end of last Quarter.	Fresh cases this Quarter.							Now affected.
			Pleuro- Pneumonia.	Glanders and Farcy.	Scab.	Swine Fever.	Foot and Mouth Disease.	Rabies.	Anthrax.	
Barnes, Urban....	Inspector ....	—	—	4	—	—	—	—	—	1
Carshalton, Urban....	Inspector ....	—	—	No	retu	rn.	—	—	—	1
Chertsey, Rural ....	Inspector ....	—	—	No	retu	rn.	—	—	—	1
Ditto .....	Sub-Inspectors	—	—	—	—	—	—	—	—	—
Croydon, Rural ....	Inspector ....	—	—	—	—	—	—	—	—	—
Dorking, Rural ....	Inspector ....	—	—	No	retu	rn.	—	—	—	—
Ditto .....	Sub-Inspectors	—	—	No	retu	rn.	—	—	—	—
Dorking, Urban....	Inspector ....	—	—	No	retu	rn.	—	—	—	—
Ditto .....	Sub-Inspector	—	—	No	retu	rn.	—	—	—	—
E. Grinstead, Rural ....	Inspector ....	—	—	No	retu	rn.	—	—	—	—
Ditto .....	Sub-Inspector.	—	—	No	rutu	rn.	—	—	—	—
E. Molesey, Urban....	Inspector ....	—	—	No	retu	r	—	—	—	—
Epsom, Rural	Inspector ....	—	—	—	—	—	—	—	—	—
Ditto .....	Sub-Inspectors	—	—	—	—	—	—	—	—	—
Epsom, Urban....	Inspector ....	—	—	No	retu	rn.	—	—	—	—
Farnham, Rural ....	Inspector ....	—	—	No	retu	rn.	—	—	—	—
Ditto .....	Sub-Inspectors	—	—	—	—	5	—	—	—	1
Farnham, Urban....	Inspector ....	—	—	—	—	—	—	—	—	—
Ditto .....	Sub-Inspector.	—	—	No	retu	rn.	—	—	—	—
Godalming, Urban....	Inspector ....	—	—	No	retu	rn.	—	—	—	—
Ditto .....	Sub-Inspector.	—	—	No	retu	rn.	—	—	—	—
Carried forward		—	—	4	—	5	—	—	—	1

AUTHORITY.	Officers.	Number affected at end of last Quarter.	Fresh cases this Quarter.							Now affected.
			Pleuro- Pneumonia.	Glanders and Farcy.	Scab.	Swine Fever.	Foot and Mouth Disease.	Rabies.	Anthrax.	
Brought forward		—	—	4	—	5	—	—	—	1
Godstone, Rural ....	Inspector ....	—	—	No return.	—	—	—	—	—	—
Ditto .....	Sub-Inspectors	—	—	No return.	—	—	—	—	—	—
Guildford, Rural ....	Inspector ....	—	—	—	—	—	—	—	—	—
Ditto .....	Sub-Inspectors	—	—	No return.	—	—	—	—	—	—
Ham, Urban	Inspector ....	—	—	No return.	—	—	—	—	—	—
Hambleton, Rural	Inspector ....	—	—	No return.	—	—	—	—	—	—
Ditto .....	Sub-Inspectors	—	—	No return.	—	—	—	—	—	—
Kingston, Rural ....	Inspector ....	3	—	—	—	—	—	—	—	—
Ditto .....	Sub-Inspector.	1	—	—	—	—	—	—	—	—
New Malden, Urban....	Inspector ....	—	—	No return.	—	—	—	—	—	—
Reigate, Rural ....	Inspector ....	50	—	—	80	—	—	—	—	79
Ditto .....	Sub-Inspectors	—	—	No return.	—	—	—	—	—	—
Richmond, Rural ....	Inspector ....	—	—	No return.	—	—	—	—	—	—
Surbiton, Urban....	Inspector ....	—	—	No return.	—	—	—	—	—	—
Sutton, Urban....	Inspector ....	—	—	—	—	—	—	—	—	—
Wimbledon, Urban....	Inspector ....	—	—	No return.	—	—	—	—	—	—
Windsor, Rural ....	Inspector ....	—	—	No return.	—	—	—	—	—	—
Ditto .....	Sub-Inspector.	—	—	No return.	—	—	—	—	—	—
		54	—	4	80	5	—	—	—	80



## DELEGATION OF POWERS.

The Committee, having made the necessary arrangements, took over from the 31st March, 1894, the powers hitherto delegated to the Rural and Urban Sanitary Authorities, and have appointed Professor J. Wortley Axe, M.R.C.V.S., Chief County Veterinary Inspector, for twelve calendar months from the 31st March, 1894, with an annual retaining Fee of Fifty Guineas for general advice and assistance and attendance on Committees and Sub-Committees, and a Fee of Three Guineas and a half for every day or part of a day on which he shall be employed in visits in connection with outbreaks or suspected outbreaks of a Contagious Disease, together with his travelling expenses.

The Committee have also appointed for the same period the following Veterinary Surgeons to be District Veterinary Inspectors for the undermentioned Districts in the Metropolitan Police District, with an annual retaining Fee of Five Guineas, and an extra retaining Fee of Five Guineas for discharging certain duties elsewhere performed by the County Constabulary, and for granting movement and other Licenses, and also an allowance of 25s. a day or part of a day on which they shall be employed, including travelling expenses, with a further allowance of 10s. 6d. for each *post-mortem* examination made by them, viz.:—

Mr. G. F. Vincent, Sutton District, Sutton, Surrey.

Mr. J. W. Edwards, Kingston District, Eden Street,  
Kingston-upon-Thames.

The Committee have likewise appointed the following Veterinary Surgeons to be District Veterinary Inspectors for

the Districts undermentioned in the County Constabulary District, upon the same terms, excepting the extra retaining Fee of Five Guineas, viz :—

Mr. W. Caudwell, Chertsey District, Chertsey.

Mr. H. C. Legge, Dorking ditto, Dorking.

Mr. C. W. Marshall, Farnham ditto, South Street,  
Farnham.

Mr. C. F. Hulford, Godalming ditto, Haslemere, Surrey.

Mr. A. Glover, Godstone ditto, South Godstone, Surrey.

Mr. S. Evershed, Guildford ditto, Guildford.

The changes in administration, which the Committee have made, will necessitate certain Amendments to the Standing Orders, and the Committee **recommend** that they be amended as follows :—

On page 15 strike out from “*Note—The powers,*” down to “*Secs. 100 and 28, 2*” inclusive.

On pages 102 to 105 substitute the following :—

#### APPENDIX Q.

Rules and Regulations made by the Executive Committee under the Contagious Diseases (Animals) Act, 1878, 41 & 42 Vict., c. 74.

##### Formation of Districts

1.—For the purposes of the Contagious Diseases (Animals) Acts, and the orders made thereunder, the County so far as regards the County Constabulary portion thereof is divided into districts co-terminous with the County Constabulary Districts, and so far as regards that portion of the County which is within the Metropolitan Police District into two districts, respectively co-terminous with the V. Division and the W. and P. Divisions.



2.—There shall be a Chief County Veterinary Inspector, and also eight District Veterinary Inspectors, who shall be under the orders and control of the Chief Inspector, subject to the supreme authority of the Committee. Officers.

3.—The remuneration of the Chief County Veterinary Inspector shall be an annual retaining Fee of Fifty guineas for general advice and assistance and attendance on Committees and Sub-Committees, and a Fee of Three guineas and a half for every day on which he shall be employed in visits in connection with outbreaks or suspected outbreaks of a Contagious Disease, together with his travelling expenses. Remuneration of Chief Veterinary Inspector.

4.—The remuneration of the District Veterinary Inspectors shall be an annual retaining Fee of Five guineas, but in the Metropolitan Police District where movement licenses cannot be granted by the Police, and where the Inspectors will be called upon to do other duties, which in the County Constabulary District will be performed by the County Police, they shall be allowed an extra retaining fee of Five guineas. The District Veterinary Inspectors shall also be granted an allowance of 25s. a day or part of a day on which they shall be employed, including travelling expenses, with a further allowance of 10s. 6d. for each *post-mortem* Examination made by them. The like District Veterinary Inspectors.

5.—It shall be the duty of each Constable in the County Constabulary District, on receiving notice of the existence of Disease, to immediately transmit the information by telegraph to or immediately inform— Duty of Constable on receiving notice of existence of disease.

- (a.) The Clerk of the Council,
- (b.) The Chief County Veterinary Inspector,
- (c.) The District Veterinary Inspector, and
- (d.) (If required by the Order of the Board) the Board of Agriculture.

In the Metropolitan Police District it shall be the duty of the District Veterinary Inspectors to immediately transmit such information to—

- (a.) The Clerk of the Council.
- (b.) The Chief County Veterinary Inspector.

The like Veterinary Inspectors in Metropolitan Police District,



Contents of  
Notice.

6.—The Constables' and Metropolitan District Veterinary Inspectors' information shall include—

1. The full name of the owner of the premises and the name of the premises where the disease is suspected to exist.
2. The Parish or place where such Premises are situated, and the nearest Railway Station thereto.
3. The name of the Disease suspected.
4. The name and address of the sender of the telegram.

Duty of  
District  
Veterinary  
Inspector  
on receipt  
of notice.

7.—On the receipt of the notice of the existence of disease, the District Veterinary Inspector shall immediately proceed to the spot and discharge the powers and duties conferred upon a Veterinary Inspector by the Acts, or by the Orders of the Board, or by the Instructions of the Chief County Veterinary Inspector.

The like  
Chief  
Veterinary  
Inspector.

8.—The Chief County Veterinary Inspector shall at once, by telegram, letter or personally, confer with the District Veterinary Inspector for the purpose of confirming the diagnosis, and, if necessary, of ordering the placarding of the place, and forbidding the movement of Animals, and generally taking such steps as may be necessary.

Chief  
Veterinary  
Inspector  
to have  
power to  
slaughter.

9.—The Chief County Veterinary Inspector shall have power to order slaughter in all cases where the Local Authority have power to do so, such power shall not be delegated by him to any person, except in cases of emergency to a Deputy appointed by him in writing. The Orders shall be made in writing and torn from an Order Book having counterfoils, and on such counterfoils the Chief County Veterinary Inspector shall enter full particulars of each Order given.

Orders for  
compensation.

10.—The Chief County Veterinary Inspector shall make Orders for compensation (ascertaining the value with the assistance of the District Veterinary Inspector or of the County Valuer if over £20) and forward the same to the Clerk of the Council who, having obtained



the sanction of the Chairman, or in his absence, of two members of the Committee, shall pass them on to the County Treasurer for payment.

11.—The power conferred upon a Local Authority of declaring a place to be infected or free from disease shall be delegated to the Chief County Veterinary Inspector.

Power as to declaring place infected or free from disease.

12.—The Chief County Veterinary Inspector shall receive and tabulate the Reports of the District Veterinary Inspectors for the use of the Committee, and shall also make to them a general Quarterly Report as to the state of the County, and also of the Districts in and adjoining, and give such information from time to time as may be required.

Reports to be tabulated.

13.—Each Veterinary Inspector shall perform all the duties from time to time imposed on Inspectors or Veterinary Inspectors by the Act, and any Order of Council or Board made thereunder or enjoined by the Committee.

Duties of Veterinary Inspectors.

14.—Each Veterinary Inspector shall, under the direction of the Committee, proceed for the recovery of penalties incurred under the said Act or any Order of Council thereunder.

To recover penalties.

15.—The District Veterinary Inspectors shall have authority and full instruction from the Chief County Veterinary Inspector as to the disposal of carcasses and the disinfection of premises, and shall be responsible that such Orders are properly carried out.

Disposal of carcasses.

16.—The District Veterinary Inspectors shall make, as often as required, but at least quarterly, on or about the 1st January, April, July and October in each year, reports to the Chief County Veterinary Inspector as to the state of their respective Districts, with regard to diseases and as to their expenses incurred during the quarter, and also reports as regards each outbreak, particularly as to the condition of the premises, the probable reason of the outbreak, and generally as to the circumstances of each case.

District Veterinary Inspectors to make Reports.

Grant of  
Licenses.

17.—Where a license is required for the movement of any animal in the Metropolitan Police District, the District Veterinary Inspectors, and in the County Constabulary District, a Sergeant, Inspector, or Superintendent, shall be empowered to grant such License, and shall forward to the Clerk of the Council the Declaration (if any) upon which such License is granted.

Notice on  
outbreak of  
Disease  
within one  
mile of the  
Boundary  
of the  
County, &c.

18.—On the outbreak of any Contagious or Infectious Diseases in this County within one mile of the Boundary of Middlesex, Berkshire, Hampshire, Sussex, London and Croydon, or of the Boundary of the Borough of Guildford, the District Veterinary Inspector, acting in such part of this County, shall immediately report to the Veterinary Inspector, or Inspector of the adjoining County or District, and also to the Clerk of the Council for this County in the prescribed form.

Notice to  
be commu-  
nicated by  
Clerk of the  
Council.

19.—The Clerk shall communicate such report to the Clerk of the Council for the adjoining County, or the Town Clerk of the Borough, as the case may be, and also to the Chief Constable, Superintendent or Inspector of Police of the County, Borough or District, the Boundary of which is within one mile of the place where such outbreak takes place.

Compen-  
sation.

20.—No compensation shall be paid in any case in which it may exceed £20, without the evidence of the County Valuer, and in every case where compensation is likely to exceed such sum, the Chief County Veterinary Inspector shall summon the County Valuer to view the animals before they are slaughtered.

Sale of  
Carcases.

21.—All amounts received for the carcasses of animals which have been slaughtered in consequence of having been in contact with animals affected with disease shall be paid direct to the County Treasurer, and no amount ordered to be paid by the County Treasurer as compensation shall be paid by him until after he shall have received the amounts realised upon the sale of such carcasses.



## BATH, AND WEST AND SOUTHERN COUNTIES SOCIETY.

The Committee have received a communication from the Secretary of the above Society, notifying that their Annual Exhibition will open on the 30th of May next, at Guildford, and will remain open until the 4th of June, and enquiring as to the regulations in force.

The Secretary has been informed, upon the assumption that the Exhibition will be held outside the Borough, that the only regulations made by this Authority in force, which would affect the Exhibition, are those which prohibit the movement of Swine into this County from Bedford, Berks, and Southampton, including all Boroughs, Cities, and Places situate within those areas.

The Committee have also expressed their willingness, on receiving certain assurances, to grant a license for the holding of the Exhibition, and to relax the above regulations, so far as to permit the reception of Pigs into the Exhibition from the above-named places for nine days, from the 28th May to the 6th day of June next, both days inclusive.

## SWINE FEVER OUTBREAKS.

### RETURNS BY BOARD OF AGRICULTURE, &C.

The Committee have received from the Board of Agriculture, and from the Veterinary Inspectors, returns as to six outbreaks of Swine Fever during the Quarter.

## PLEURO-PNEUMONIA.

## RETURNS BY BOARD OF AGRICULTURE.

The Committee have also had submitted to them the weekly returns furnished by the Board of Agriculture, which show that two animals have been slaughtered during the like period, by order of the Board, in consequence of having been suspected of Pleuro-Pneumonia, but that both animals were afterwards found free from disease.

## GLANDERS.

Returns have been received from the London County Council, signed by their Inspector, stationed at the Premises of Harrison, Barber & Co., Limited, of Wandsworth, that five horses have been received there from the County of Surrey, during the Quarter, affected with Glanders or Farcy. These cases arose in the parishes of Barnes and Richmond.

Dated this 20th day of April, 1894.

EDWIN ELLIS,  
*Chairman.*



