

[Report 1902] / Medical Officer of Health, Surrey County Council.

Contributors

Surrey (England). County Council.

Publication/Creation

1902

Persistent URL

<https://wellcomecollection.org/works/v5v45umt>

License and attribution

You have permission to make copies of this work under a Creative Commons, Attribution license.

This licence permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See the Legal Code for further information.

Image source should be attributed as specified in the full catalogue record. If no source is given the image should be attributed to Wellcome Collection.



Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>

AC 4413

Surrey County Council.

MEDICAL OFFICERS OF HEALTH.


ANNUAL REPORT,

1902.

WITH SUMMARIES OF DISTRICT REPORTS.

BY THE MEDICAL OFFICER FOR THE

County of Surrey.



Digitized by the Internet Archive
in 2018 with funding from
Wellcome Library

<https://archive.org/details/b3014842x>

ANNUAL REPORT,

1902,

OF THE

MEDICAL OFFICER OF HEALTH

OF THE

ADMINISTRATIVE COUNTY OF SURREY.

TABLE OF CONTENTS.

	PAGE
I. County Sanitary Administration ...	5
II. Meteorology ...	8
III. Vital Statistics...	12
IV. Phthisis Prevention ...	35
V. Sanitation of Dwellings ...	38
VI. Domestic Water Supply ...	54
VII. Main Sewerage ...	56
VIII. Mortuaries ...	58
Table I. ...	12
Table II. ...	16
Table A ...	20
Table B ...	23
Table C ...	30

ANNUAL REPORT for 1902.

INTRODUCTORY NOTE.

MR. CHAIRMAN, MY LORDS AND GENTLEMEN,

The subjects dealt with in the following Report are set forth in the Table of Contents, and are to be found in detail in the Index.

I again beg to thank Mr. Campbell-Bayard for his valuable Section on Meteorology in Surrey.

The year under notice was an anxious time for medical officers of health. One of my colleagues in the county referring to "outbreaks" or "threatened outbreaks" of smallpox, writes in his report of 1902, as "a period of untold trouble and anxiety"; while another officer for a large residential district, dwells upon the very great responsibility attaching to his decision in cases of difficult diagnosis, and to the trouble he has had in consequence. There can be no doubt that under existing circumstances, the lot of "the medical officer of health" is least to be envied of those who take share in medical preventive measures against epidemic smallpox. But the marked success which attended the efforts to limit the spread of infection in the Administrative County, has I believe, been generally recognized, and encouragement is to be derived from that fact. It was my duty to make a report on the outbreaks or epidemic of smallpox, and I did so in October,

1902. I have nothing to add to this document at present. But, when the proper time arrives, I should like to make a short and comprehensive statement of the recommendations I am responsible for since 1891, a period of twelve years, during which the smallpox hospital question may be said to have passed through different phases. I should also wish to emphasize what I have already said in my special report with regard to both vaccination and isolation as measures of controlling epidemic smallpox ; and once again to express my conviction that to make them fairly efficient and not too costly, powers are required to enable Sanitary Authorities to facilitate diagnosis of smallpox and in order to remove hindrances in securing the vaccination or revaccination of "contacts."

With these few remarks I proceed to the discussion of the many other matters which demand the constant attention of the County Council and Sanitary Authorities, and which it will be seen have not been neglected for the sake of that exceedingly troublesome disease which it has been necessary to refer to again very briefly in this place.

Your obedient Servant,

EDWARD C. SEATON.

May, 1903.

*To the Council of the
Administrative County of Surrey.*

I.—COUNTY SANITARY ADMINISTRATION.

The only alteration in the Staff of Medical Officers during the year was at Godalming, there have been further changes in the Sanitary Inspectors' departments which are referred to in the section on House Sanitation.

The *new medical officers' districts* referred to in the Report for 1901 are now in good working order. In proof thereof I can not do better than refer to the excellent reports of Dr. Crocker for Richmond, Dr. Hanslow Brind for the Chertsey, Walton, and Weybridge combination, Dr. Pierce for the Guildford and Woking combination, and Dr. Williamson for the Epsom and Dorking division of the County. These are very carefully prepared and important documents, and have required a good deal of time for study and comparison. That by Dr. Crocker is published in book form and extends over 78 pages.

Annual Reports are all printed now, and an increasing number of them are issued in book or pamphlet form. The Kingston report (which always appears first), the Wimbledon, Barnes, Guildford Borough, Godstone Rural, Croydon Rural, and Surbiton reports, and those of some other districts, have now for some time been issued in this form. It is hardly necessary to say that they all contain a great deal of matter requiring careful consideration. The increasing demand on my attention which their examination entails is, in one way, gratifying, inasmuch as it shows the great advance that has been made since the Local Government Act came into operation about twelve years ago. Indeed, it would be instructive if I could exhibit the documents sent to the Clerk of the Council, and subsequently forwarded to me in 1890, alongside of those sent in 1903. As regards both form and

matter, the two sets of reports would be found in striking contrast, the marked superiority of the recent documents becoming more evident the closer their contents are studied. But while recognising the gain to our department in one respect, it should also be admitted that the preparation, printing, and presentation of these books and pamphlets must be an affair of much longer time now than formerly. This, in turn, means postponement of the County Report. It is true that some of the 34 district reports might, for all that appears to the contrary, easily be sent to the Clerk of the Council within six weeks of the beginning of the year; but others cannot well be expected before the statutory limit of time, *i.e.*, the end of March. Although I have used my best endeavours to promote early reporting, I do not think it practicable under the present system to produce the County publication earlier than the end of May. Possibly some day the present system may be altered. The subject was broached at the Manchester Meeting of the Sanitary Institute, and it is hoped some practical step in the direction of *simplifying and expediting official reporting* may be taken by influential authorities. In the meantime, I have promised as soon as opportunity offers, to obtain further information which will assist the Sanitary Committee in deciding whether anything more can be done to secure their objects without alteration of the existing system so far as it concerns the Local Government Board.

Some of the District Annual Reports contain special information on subjects of general interest, *e.g.*, the growing use of Water Gas (Dr. Beale Collins, Kingston), School Hygiene (Dr. Crookshank, Barnes), Diphtheria (Dr. Oldman, Bletchingly).

A considerable addition has been made to the work of the Medical Officers' Departments in parts of the County by the

Factory and Workshops Act. In the districts which have Specialist Officers, the work has, by their desire, generally been put under their immediate control. The regulation of the health conditions at factories and workshops is thus brought into line with that of dwelling houses. The Act has hardly yet been in operation long enough to be reported on comprehensively, so far as it concerns the whole County. It should however be mentioned, that in several populous districts, much time and attention has been given to the sanitary improvement of the workshops by the Medical Officers of Health and the Sanitary Inspectors.

Special Conferences on subjects, about which the County Council's Association has been actively concerned, have been held at various times in London, Manchester and Birmingham, and have been attended and contributed to by me.

Monthly Summaries of Notification Returns.—These continue to be issued, the 96th number having been reached at the end of 1901. Some improvements in the form of the returns have been made from time to time in accordance with the suggestions of my colleagues and the Committee.

Local Government Board Inquiries have been attended in accordance with the Standing Orders, and are referred to in the section on Main Drainage, &c. They were almost all on that subject, but one of them related to hospital accommodation at Epsom, and another to the long standing difficulty of the provision for Reigate Borough and the Reigate Rural District. I spoke as to the policy of the County Council on each of these occasions, and I am glad to say that the statements I made produced a good effect.

II.—METEOROLOGY OF SURREY, 1902.

BY

FRANCIS CAMPBELL-BAYARD,

Secretary Royal Meteorological Society.

THE BAROMETER.

Pressure was above the average in six months, the month of January being noticeable as the mean pressure was the highest for the year, and it was besides accompanied by a very small rainfall. Pressure was deficient in five months, in three of which, viz., the months of May, June, and August, the rainfall was much above the average. In June the mean pressure was the lowest in my record, and it was accompanied by an excess of nearly $2\frac{3}{4}$ inches of rain. The results of the year's mean is a very slight deficiency from the average.

TEMPERATURE.

The day temperatures, maximum in the shade, have, with the exception of the three months of January, March, and December, been below the average, the months of February and May being extremely cold, the latter being the coldest May in my record, whilst January and March were very warm. The result on the year's average is a deficiency of nearly $1\frac{1}{2}^{\circ}$. With respect to the night temperatures, the thermometer, minimum in the shade, was above the average in six months, the months of January, March, and December being especially warm, whilst it was below the average in six months, the months of February and May being again very cold, with the result that on the year's average there is an excess of half a degree. If we now consider the mean temperature of the month we see at once how cold a year it has been. In no less than seven months was the mean temperature below the average, the month of May being again the coldest May in my record. Of the other months, the months of January, March, and December were very warm, the two former months being especially so. The result on the year's average is a deficiency in the mean temperature of half a degree.

CLOUD.

The amount of cloud is above the average for the year. In seven months there was an excess, the excesses in March, August, and December being very noticeable. It is again curious to note the large excess in March, which this year was a very warm month, a great contrast with March in 1900 and 1901, when, though there was a great excess of cloud, the month was cold. It is curious to note also that though the deficiency in the amount of cloud for January and February was the same, yet the temperature of January was as much above the average as the temperature of February was below.

WIND.

The force of the wind on the year's average was slightly deficient. April was the most windy month whilst August was the calmest, in fact, it was the August with the smallest wind force in my record. The months of November and July were also much deficient in wind force.

RAINFALL.

The total rainfall for the year throughout the County is about $3\frac{3}{4}$ inches below the average. The only place that I know of in the County where the rainfall is above the average is Esher, and this was caused by a heavy thunderstorm on September 10th, when 3.51 inches fell. Eight months were below the average, and these included the three months at the beginning of the year and the three months at the end of the year, when we naturally expect the underground waters to be replenished, owing to the absence of evaporation. The only months in the year when the rainfall was above the average were May, June August, and September. Of these four months June was by far the wettest. The impression is abroad that the year was a wet one. This was not the case. The rain, however, fell principally in the summer months, when people take their holidays, and as a rule not in great but in numerous small showers. This is seen by studying the column for rainy days, in which it will be noticed how large an excess of rainy days there was in May and June, and also a small excess in August. The other months, with the single exception of October, which, though it had a small rainfall, had a large number of rainy days, had a considerable deficiency in the number of rainy days. The month of June had the largest rainfall and the largest number of rainy days of any June in my record.

SUNSHINE.

The year has been very deficient in sunshine, in fact, the year's total is the smallest in my record, being no less than 322 hours below the average. There were only three months over the average, viz. January, March, and November, but the excesses were but small. The deficiencies in the other months were large, more especially in May and August, with smaller amounts in April, June, and October.

In conclusion, I should like to mention that the yield of most of the farm crops has been, as shown by the statistics collected by the Board of Agriculture, above the average in quantity, which is a somewhat surprising fact, but all fruit crops have been deficient.

For the purpose of comparison, I have given in a tabular form an abstract of my own observations at Wallington, 140 feet above ordnance datum. This station has for many years past been inspected by the Royal Meteorological Society, and is furnished with properly verified instruments, and the time of observation is 9 a.m. The year's observations are compared with the average of the fifteen years 1886-1900.

FRANCIS CAMPBELL-BAYARD.

Wallington, Surrey.

February 19th, 1903.

Abstract of Meteorological Observations at Wallington, Surrey.

	Barometer reduced, &c.	Relative Humid- ity.	Maximum Temp. in shade.	Minimum Temp. in shade.	Minimum Temp. on Grass.	Mean Temp. + avg. deg. deg.	Cloud Amount. Mean + avg. 0 to 10 to 12	Wind Force. Mean + avg. 0 to 12	Total Rainfall. Depth In. In.	No. of Rainy Days (Total) + avg.	Sunshine (Jordan). Possible Duration + avg. amt. p.c.
1902	In. In.	Mean + avg. p.c p.c.	Mean + avg. deg. deg.	Mean + avg. deg. deg.	Mean + avg. deg. deg.	Mean + avg. deg. deg.	Mean + avg. 0 to 10 to 12	Mean + avg. 0 to 12	Mean + avg. In. In.	Mean + avg. hrs. hrs.	Mean + avg. p.c. p.c.
Jan.	30.153+144	88-2	45.8+3.3	36.8+3.8	32.7+3.4	41.3+3.4	7.1-0.7	2.4+0.5	0.70-1.21	9-9	20+4
Feb.	29.864-176	91+2	39.7-4.5	30.2-2.5	27.5-1.4	35.0-3.4	6.9-0.7	1.6-0.5	0.83-0.65	12-1	19-3
Mar.	29.855+064	83-1	52.5+3.4	38.1+3.5	34.5+4.1	45.3+3.5	8.2+1.5	2.0-0.2	1.74-0.15	12-2	33+2
April	29.944 avg.	74-3	54.8-1.0	39.3+0.6	35.4+0.7	47.0-0.3	6.7 avg.	2.9+0.8	0.69-0.77	10-3	28-10
May	29.964-015	72 avg.	57.0-5.8	41.2-2.5	38.5-2.1	49.1-4.2	7.1+0.6	2.5+0.3	2.68+0.88	20+8	25-17
June	29.905-116	72-1	66.0-3.4	49.8-0.5	48.6+0.6	57.9-1.9	7.2+0.7	2.0+0.2	4.36+2.70	19+9	33-9
July	30.018+051	72-1	69.9-1.8	52.2-1.1	50.3-1.0	61.1-1.4	6.9+0.3	1.4-0.6	1.31-1.40	11-1	39-3
Aug.	29.919-046	80+2	67.8-2.9	52.2-0.7	49.8-0.9	60.6-1.9	8.2+1.7	0.9-1.0	3.17+0.89	18+3	27-17
Sept.	30.055+024	81 avg.	64.2-2.4	47.3-1.3	45.4-1.3	56.0-1.8	5.9-0.3	1.6-0.3	2.04+0.33	7-4	42-1
Oct.	29.968+047	88+1	55.3-1.3	43.6+1.2	40.0+0.6	49.5 avg.	7.7+1.1	1.9+0.1	1.53-1.43	19+4	17-13
Nov.	29.879-087	88-2	49.7-0.3	40.9+1.9	36.2+0.6	45.3+0.8	7.6-0.1	1.2-0.7	1.90-1.04	12-4	19 avg.
Dec.	30.045+087	87-3	44.4+0.2	37.5+2.8	34.1+4.0	41.0+2.0	8.7+1.4	2.4+0.3	1.43-0.92	12-4	8-8
Year	29.965-012	81-1	55.6-1.4	42.5+0.5	39.4+0.6	49.0-0.5	7.4+0.5	1.9-0.1	22.38-2.77	161-4	26-6

COUNTY OF SURREY.

TABLE I. FROM THE CENSUS, 1901.

GROUPED OCCUPATIONS OF MALES AGED 10 YEARS AND UPWARDS in Municipal Boroughs and in other Urban Districts with Populations exceeding 5000; also Proportion of Children of 10 and under 14 Years of Age engaged in Occupations, 1901.

MALES AGED 10 & UNDER 14 YEARS.			MUNICIPAL BOROUGH (M.B.), AND OTHER URBAN DISTRICTS (U.D.).	MALES AGED 10 YEARS AND UPWARDS.													
Engaged in Occupations.	Proportion per cent. Engaged in Occu- pations to Total.	Total Occupied and Unemployed.		XXIII. Retired or Unemployed.	I.-XXII. Engaged in Occupations.	V. 2. Commercial or Business Clerks.	VI. Conveyance of Men, Goods, and Messages.	VII. Agriculture— On Farms, Woods, and Gardens.	X. 3. Engineering and Machine Making.	XII. Building and Works of Construction.	XIII. Wood, Furni- ture, Fittings, and Decorations.	XVI. Skins, Leather, Hair, Feathers.	XVII. Paper, Prints, Books, & Stationery.	XIX. Dress.	XX. Food, Tobacco, Drink, and Lodging.	All Other Occupations.	
31	4.4	...	BARNES (U.D.)	6263	1196	5067	360	728	298	143	800	94	23	101	112	535	2073
13	4.2	...	CARSHALTON (U.D.)	2381	511	1870	108	118	230	36	400	16	62	51	33	178	638
16	5.3	...	CATERHAM (U.D.)...	4238	1414	2824	40	145	140	21	358	15	8	16	41	156	1881
32	5.1	...	CHERTSEY (U.D.) ...	4775	1052	3723	70	386	713	135	645	51	20	41	95	329	1238
25	8.8	...	DORKING (U.D.) ...	2710	514	2196	45	270	114	37	375	86	11	39	97	302	820

20	10-3	EAST AND WEST MOLESEY (U.D.)	2089	354	1735	61	217	131	54	298	36	5	16	41	180	696
27	6-4	EPSOM (U.D.)	4263	1065	3198	72	390	205	56	759	46	11	37	69	263	1290
26	8-1	ESHER AND THE DITTONS (U.D.)	3455	570	2885	96	289	319	129	329	41	8	16	59	240	1359
19	8-1	FARNHAM (U.D.)	2357	482	1875	70	224	131	65	336	28	11	28	88	279	615
22	5-7	FRIMLEY (U.D.)	3346	521	2825	30	207	137	24	430	29	10	20	84	173	1681
41	10-4	GODALMING (M.B.)	3400	842	2558	58	242	88	52	442	50	^a 268	81	93	264	920
47	7-7	GUILDFORD (M.B.)	5875	1041	4834	140	815	165	130	831	209	30	^b 243	206	612	1453
75	5-9	KINGSTON UPON THAMES (M.B.)	12,406	2317	10,089	449	1453	323	212	1656	222	67	^c 414	341	1151	3801
68	6-1	REIGATE (M.B.)	9388	2296	7092	191	877	334	111	1249	160	80	204	229	766	2891
53	5-1	RICHMOND (M.B.)	10,482	2110	8372	501	1115	382	116	1186	185	29	190	260	1016	3392
42	9-5	SURBITON (U.D.)	4825	882	3943	193	436	296	79	590	48	15	65	117	462	1642
30	2-9	SUTTON (U.D.)	5755	1507	4248	292	414	198	51	794	72	20	68	142	408	1789
15	6-4	THE MALDEN AND COOMBE (U.D.)	2250	431	1819	134	187	171	31	234	23	8	53	60	148	770
26	7-0	WALTON UPON THAMES (U.D.)	3684	593	3091	105	250	363	96	511	57	12	34	60	268	1335
3	2-0	WEYBRIDGE (U.D.)	1711	297	1414	49	142	88	16	228	17	10	26	42	164	632
100	6-4	WIMBLEDON (U.D.)	13,986	2689	11,297	907	1298	357	299	1828	190	111	^d 475	418	1128	4286
57	9-4	WOKING (U.D.)	6489	1342	5147	72	635	570	60	937	60	7	153	89	383	2181

^a Including 13; "Carriers; Leather Goods Makers."
^b Including 205 "Printers."

^c Including 281 "Printers."
^d Including 281 "Printers."

COUNTY OF SURREY.

TABLE I. FROM THE CENSUS, 1901.

GROUPED OCCUPATIONS OF FEMALES Aged 10 Years and Upwards in Municipal Boroughs, and in other Urban Districts with Populations exceeding 5,000; also Proportions of Children of 10 and under 14 Years of age, and of Married or Widowed Women engaged in Occupations, and Proportion of Female Domestic Servants to Separate Occupiers or Families, 1901.

FEMALES AGED 10 YEARS AND UPWARDS.																	
FEMALES AGED 10 & UNDER 14 YEARS.	MUNICIPAL BOROUGH (M.B.) AND OTHER URBAN DISTRICTS (U.D.)	FEMALES AGED 10 YEARS AND UPWARDS.															
		Engaged in Occu- pations.	Proportion per cent. Engaged in Occu- pations to Total.	Total Occupied and Unoccupied.	XXIII. Retired or Unoccupied.	I.-XXII. En- gaged in Occu- pations.		III. 4. Teaching.	IV. 1. Domestic In- door Servants (not in Hotels, &c.)	IV. 3. Charwoman.	IV. 3. Laundry and Washing Service.	V. 2. Commercial or Business Clerks.	XVII. Paper, Prints, Books & Stationery.	XIX. Tailorers, Milliners, Dress- makers, Shirtmakers, Seamstresses.	XX. Food, Tobacco, Drink, and Lodging.	All Other Occu- pations.	Proportion per cent. of Married or Widowed engaged in Occu- pations.
11	1.7	BARNES (U.D.) ...	7886	5272	2132	482	110	1452	48	310	36	12	258	127	261	12.5	36.9
7	2.4	CARSHALTON (U.D.)	2800	1924	711	165	28	447	20	86	18	28	77	29	143	11.8	31.9
1.3		CATERHAM (U.D.)	3834	2852	838	144	46	559	7	68	6	7	71	31	187	8.2	45.0
0.8		CHERTSEY (U.D.)	5129	3524	1211	394	66	803	27	207	15	13	148	84	242	15.0	30.3
7	2.4	DORKING (U.D.)	3543	2282	1066	195	53	665	39	103	12	4	155	68	162	11.9	39.9

6	2.5	EAST AND WEST MOLESEY (U.D.)	2746	1812	753	181	30	515	15	97	17	4	111	61	84	13.8	39.9
8	2.5	EPSON (U.D.) ...	4825	3296	1265	264	42	780	25	181	19	9	117	75	281	11.4	39.0
4	1.1	ESHER AND THE DITTONS (U.D.)	4209	2719	1258	232	73	1003	9	133	11	3	111	51	96	11.5	47.3
5	2.0	FARNHAM (U.D.)	2636	1830	649	157	62	371	18	36	11	12	121	57	118	11.7	28.4
8	2.5	FRIMLEY (U.D.) ...	3494	2189	1085	220	44	854	12	108	9	5	96	63	114	13.5	54.0
14	4.2	GODALMING (M.B.)	3590	2258	1107	225	60	518	28	219	13	43	139	48	264	13.1	28.8
9	1.4	GUILDFORD (M.B.)	7115	4677	1987	451	144	1125	51	159	49	33	390	209	368	13.3	32.8
34	2.5	KINGSTON-UPON- THAMES (M.B.)	14,535	9799	3645	1091	196	1927	116	664	93	75	687	255	723	14.5	27.1
23	2.1	REIGATE (M.B.) ...	11,872	7637	3617	618	206	2332	61	383	46	41	416	177	573	11.9	42.7
29	2.6	RICHMOND (M.B.)	15,756	9446	5266	1044	239	3493	115	482	134	20	555	342	930	15.4	49.8
11	2.4	SURBITON (U.D.)	7611	4337	2858	416	145	2189	19	206	37	16	255	139	263	13.6	69.7
15	1.7	SUTTON (U.D.) ...	7659	4988	2315	356	121	1629	31	179	28	12	196	94	381	11.1	51.8
6	2.5	THE MALDEN & COOMBE (U.D.)	2700	1880	679	141	36	538	10	49	12	3	65	29	75	10.4	39.5
18	4.2	WALTON - UPON THAMES (U.D.)	4646	2857	1510	279	60	1216	17	170	9	6	129	47	135	13.0	55.6
4	2.0	WEYBRIDGE (U.D.)	2676	1507	1027	142	27	788	12	67	14	4	102	40	115	13.2	68.4
36	2.2	WIMBLEDON (U.D.)	18,694	12,193	5491	1010	285	3542	96	686	134	49	679	229	801	11.4	38.8
19	3.3	WOKING (U.D.) ...	6384	4619	1479	286	104	935	22	141	17	40	126	82	298	8.7	30.5

III.—VITAL STATISTICS.

THE CENSUS, 1901.—The complete returns for the County of Surrey were presented to Parliament in the year 1902. The volume contains full information as to area, houses and population, the population being classified according to ages, condition as to marriage, occupation, birth places, and infirmities. There are 39 most elaborate tables which are necessary for a number of purposes. Two of these tables specially concern the Sanitary Authorities, and are therefore reproduced in this annual report.

The first Table, I., is so constructed as to show for every Urban district with a population exceeding 5000, the following statistics :—1. The total population, male and female, of an age to engage in occupation, that is, over ten years; 2.—The number who are retired or unoccupied; 3.—The total number engaged in occupation; 4.—The number engaged in occupation or groups of occupations selected, so as best to illustrate the prevailing industries of the County; 5.—The number of children between ten and fourteen years of age engaged in occupation; 6.—The proportion per cent. of children so engaged to the total child population within those years; 7.—The number of unmarried women and of married or widowed women engaged in occupation; 8.—The proportion of female domestic servants, not including those in hotels, &c., to a hundred separate occupiers or families.

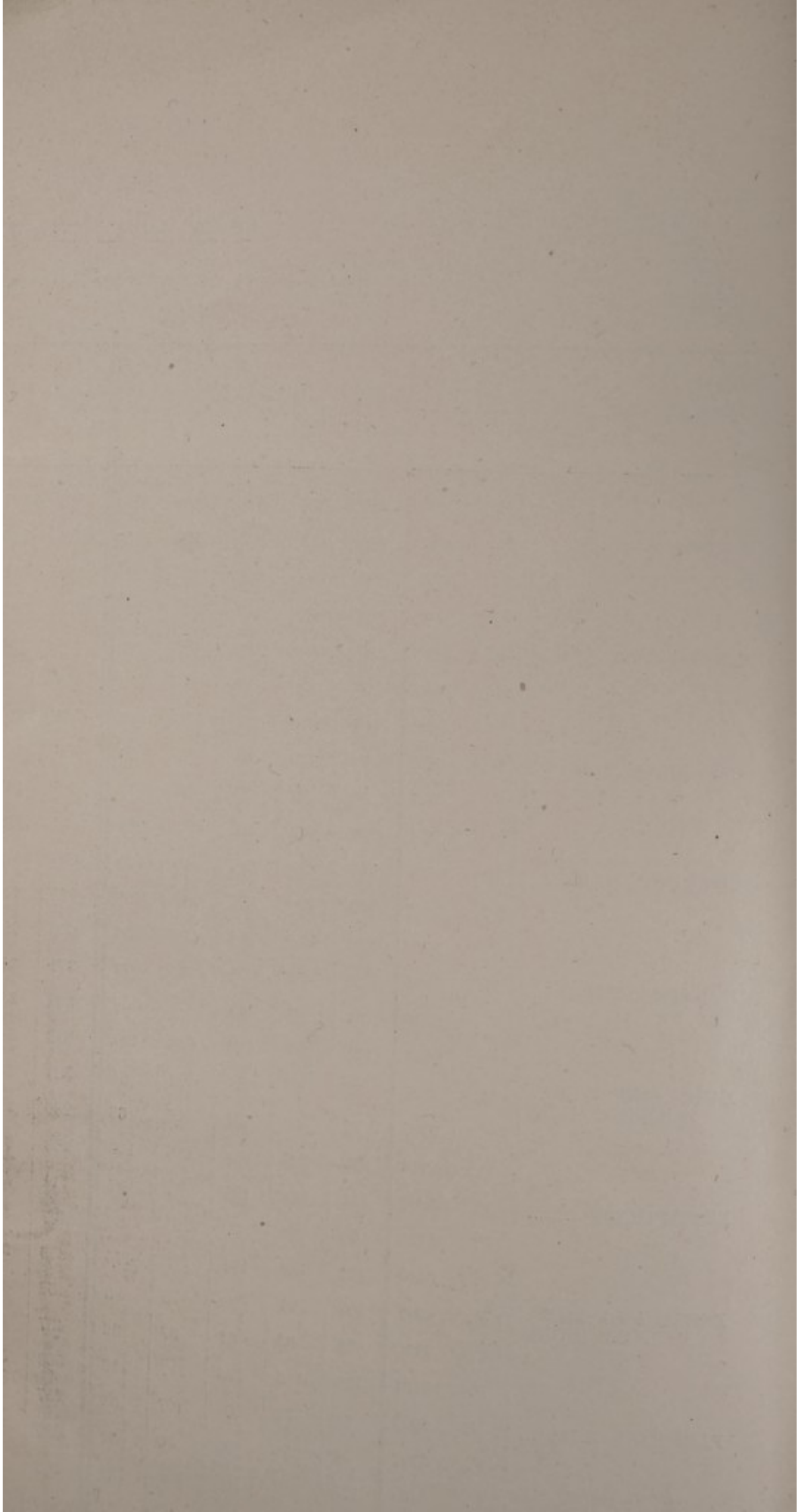
The second Table, II., is constructed to show the AGES of persons, males and females in the Boroughs, Urban and Rural Districts of the County. It has been necessary to give this in detail with the sub-divisions at age periods, and with the three sets of figures for each district. This AGE Table together

Administrative County of Surrey.

TABLE II. FROM THE CENSUS, 1901,

Showing AGES of PERSONS, MALES and FEMALES, in RURAL DISTRICTS.

RURAL DISTRICT.	ALL AGES.	Under 1 Year.	1-	2-	3-	4-	Under 5 Years.	5-	10-	13-	14-	15-	16-	17-	18-	19-	20-	21-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75-	80-	85-	90-	95-	100 and upwards.
CHERTSEY	P. 12,177	241	250	279	264	275	1309	1379	918	357	328	268	246	213	203	193	216	799	941	891	891	708	570	491	411	340	238	188	100	51	13	5	—	—
	M. 6122	121	122	128	117	137	625	714	531	228	227	157	152	128	100	94	103	335	412	421	400	365	266	231	204	159	108	91	46	19	5	1	—	—
	F. 6055	120	128	151	147	138	684	665	387	129	101	111	94	85	103	99	113	464	529	470	491	343	304	299	297	181	130	97	54	32	8	4	—	—
CROYDON	P. 38,069	833	769	848	788	832	4070	4029	2542	765	836	700	684	645	618	624	655	2690	3086	3944	2652	2279	1903	1681	1304	1169	890	652	340	179	46	7	—	—
	M. 18,059	409	361	431	417	451	2060	2055	1277	377	434	344	334	330	271	278	282	1145	1364	1373	1257	1115	911	792	690	559	394	289	159	—	17	4	—	—
	F. 29,010	433	408	417	371	381	2010	1974	1265	388	492	356	359	345	347	346	373	1515	1722	1671	1395	1164	992	889	794	610	505	363	181	111	29	3	—	—
DORKING	P. 9779	194	166	175	191	197	923	993	589	216	187	206	183	198	178	175	189	727	723	738	636	636	510	503	408	333	234	159	105	44	18	—	2	—
	M. 4792	109	85	82	101	99	476	493	282	109	96	108	100	97	94	99	97	357	317	347	302	279	247	242	201	165	123	77	52	24	7	—	1	—
	F. 4987	85	81	93	90	98	447	500	298	107	91	98	83	101	84	76	92	370	406	391	334	327	263	266	207	168	111	82	53	20	11	—	1	—
EGHAM	P. 11,895	256	253	272	240	235	1256	1239	730	245	222	212	231	229	229	239	265	877	1001	929	788	731	627	561	434	339	297	158	97	52	19	5	—	—
	M. 5722	127	129	128	124	124	632	628	374	131	109	99	123	105	118	138	145	418	449	406	383	348	298	273	175	154	83	70	45	11	6	1	—	—
	F. 6173	129	124	144	116	111	624	611	336	114	113	113	108	115	111	101	120	459	552	514	405	383	329	288	259	176	124	88	52	41	13	4	—	—
EPSOM	P. 22,443	433	394	411	386	444	2365	2269	1461	459	437	384	401	314	329	332	394	1590	1824	1738	1621	1512	1300	1131	949	742	524	329	233	102	25	2	—	—
	M. 10,677	239	199	229	198	228	1075	1168	791	254	210	171	192	142	155	163	189	711	795	784	726	715	624	562	413	339	241	122	92	37	9	1	—	—
	F. 11,766	203	195	191	188	216	993	1191	670	196	227	213	209	172	174	169	205	869	1028	954	896	797	672	569	527	412	283	207	141	65	16	1	—	—
FARNHAM	P. 16,951	389	409	405	416	431	2051	1972	1177	382	363	313	297	282	309	275	254	1153	1286	1291	1179	942	817	724	692	436	372	275	162	74	39	3	—	—
	M. 8261	184	205	183	201	206	979	1011	595	200	199	166	161	162	142	145	125	552	584	590	553	417	383	350	301	223	173	135	72	34	16	2	—	—
	F. 8690	205	204	223	215	225	1072	961	582	182	173	147	136	129	167	139	129	691	792	611	626	525	434	374	301	233	199	140	90	40	14	1	—	—
GODSTONE	P. 18,378	379	389	420	397	412	1997	1999	1113	365	358	335	330	365	359	322	332	1340	1481	1349	1250	1142	996	817	644	559	405	295	195	97	35	5	1	—
	M. 9037	197	189	211	195	195	987	1045	556	198	173	175	171	183	166	154	166	649	712	630	569	555	452	410	324	264	194	141	98	55	17	1	1	—
	F. 9341	182	200	209	202	217	1010	954	557	167	185	169	159	182	184	168	166	709	769	719	681	587	454	497	329	286	211	154	97	42	18	4	—	—
GUILDFORD	P. 21,192	476	399	449	474	474	2272	2272	1413	462	473	449	430	396	455	468	384	1558	1629	1489	1407	1268	1013	955	715	626	455	339	200	104	26	5	—	—
	M. 10,541	244	292	232	258	228	1164	1155	718	245	275	270	242	239	274	206	207	789	720	678	629	621	492	478	333	278	212	156	96	39	13	2	—	—
	F. 10,651	232	197	217	216	246	1108	1117	695	217	198	179	188	157	181	202	177	769	900	811	778	647	531	477	362	348	241	183	104	65	13	3	—	—
HAMBLEDON	P. 21,669	465	424	453	467	455	2294	2261	1498	570	557	466	449	382	393	368	336	1333	1631	1693	1517	1318	1047	955	803	618	529	355	240	116	39	9	—	1
	M. 10,771	227	217	219	222	231	1116	1089	830	308	328	255	241	205	281	208	168	685	736	786	701	629	491	457	411	298	271	163	110	59	19	6	—	—
	F. 10,889	238	207	234	245	224	1148	1172	668	262	229	211	208	177	192	160	168	648	895	819	816	689	556	498	392	320	258	192	130	57	20	3	—	1
REIGATE	P. 16,747	386	318	368	375	386	1833	1903	1020	345	399	361	326	314	311	318	302	1121	1318	1271	1161	1002	878	723	631	457	369	240	140	70	19	5	—	—
	M. 8,055	179	172	200	204	186	941	912	482	159	154	175	200	161	171	154	140	528	594	572	543	468	397	363	325	218	177	111	67	35	7	1	—	—
	F. 8,692	207	146	168	171	200	892	991	538	186	155	186	126	153	140	164	162	593	724	699	618	534	481	369	306	239	192	129	73	35	12	4	—	—



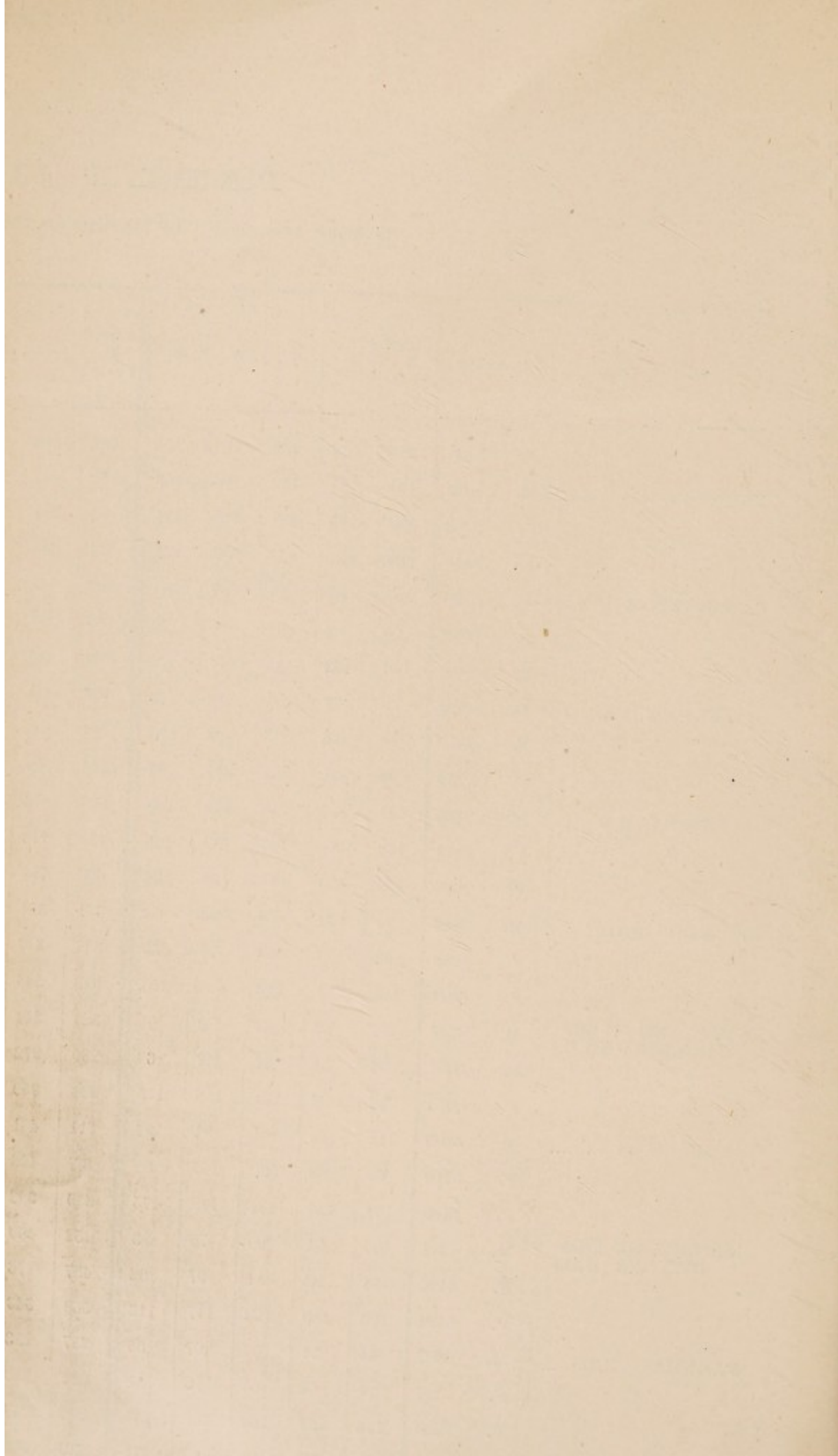
Administrative County of Surrey.

TABLE II. FROM THE CENSUS, 1901.

Showing the AGES of PERSONS, MALES and FEMALES IN MUNICIPAL BOROUGHs and in other URBAN DISTRICTS, 1901.

NOTE.—The letters M.B. and U.D. respectively denote Municipal Borough and Urban District.

Urban District.	All Ages.	Under 1 Year.	1	2	3	4	Under 5 Years.	5	10	15	16	17	18	19	20	21	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100 and upwards.		
BARNES (U.D.)	P. 17,821	289	377	356	308	354	1844	1828	1094	338	341	318	363	351	336	388	348	1394	1682	1423	1234	1132	887	812	563	441	308	213	132	60	23	6	2	—
	M. 8099	191	184	172	179	163	989	917	532	173	175	147	162	189	136	168	160	549	681	647	520	528	408	355	252	134	126	96	37	16	7	3	—	
	F. 9732	198	193	184	189	191	855	911	472	165	166	171	201	171	210	220	188	854	1001	776	704	624	479	457	311	247	182	147	75	44	16	3	2	—
CARSHALTON (U.D.)	P. 6746	183	131	157	147	133	771	794	466	136	129	144	124	123	121	159	117	456	371	301	442	394	333	257	212	189	132	87	56	39	8	1	—	—
	M. 3783	107	63	88	67	83	408	404	248	58	63	73	66	61	58	63	57	191	331	224	205	187	135	119	103	79	56	45	126	11	2	—	—	
	F. 3553	76	68	69	80	79	363	390	218	78	66	71	58	62	63	87	69	365	349	277	237	297	189	138	109	110	76	42	39	19	6	1	—	—
CATERHAM (U.D.)	P. 9486	146	153	141	177	122	739	675	368	152	145	128	133	139	377	374	284	932	865	632	635	559	533	443	402	320	223	188	114	41	19	10	—	—
	M. 4909	70	77	64	84	58	333	318	208	94	79	79	68	69	304	299	198	532	423	282	303	246	263	262	177	151	88	43	44	11	9	2	—	—
	F. 4577	76	76	77	93	64	382	337	189	58	66	49	65	79	73	75	86	380	462	370	320	313	268	241	225	175	135	105	79	30	10	8	—	—
CHEERTSEY (U.D.)	P. 12,762	399	311	287	289	1467	1391	908	318	300	272	259	223	219	233	228	827	993	938	797	707	662	509	446	371	246	216	125	92	19	4	—	—	
	M. 6144	147	150	136	149	133	696	673	439	163	169	174	155	113	115	127	115	338	453	428	367	331	316	244	213	177	122	96	63	41	5	2	—	—
	F. 6618	152	161	155	147	156	773	718	445	153	131	98	104	119	104	108	113	489	549	510	430	372	346	265	227	214	124	111	62	53	14	2	—	—
DORKING (U.D.)	P. 7679	152	130	145	136	136	699	718	425	154	153	153	137	138	139	131	144	341	625	591	539	458	419	353	315	277	187	187	88	53	22	6	—	—
	M. 3462	84	72	76	62	77	371	381	221	62	61	63	80	52	59	51	63	295	333	249	264	192	195	156	139	124	77	84	42	18	5	2	—	—
	F. 4298	68	58	69	74	59	328	337	204	92	92	88	77	96	80	80	81	336	379	342	265	246	224	197	183	153	119	103	46	35	17	4	—	—
EAST AND WEST MOLESEY (U.D.)	P. 6034	113	123	132	123	124	613	585	338	99	91	105	122	118	133	126	109	452	598	549	497	375	300	287	211	163	86	71	42	31	8	3	—	—
	M. 2727	57	63	68	73	61	324	314	159	44	47	53	56	52	53	56	52	179	239	225	192	172	134	134	105	64	31	28	15	6	—	1	—	—
	F. 3307	56	58	64	68	63	289	272	188	53	44	72	66	66	80	79	56	273	339	335	215	203	166	153	106	99	55	43	27	25	8	2	—	—
EPSON (U.D.)	P. 19,915	303	296	194	186	179	968	839	550	185	201	197	236	217	194	226	253	309	1069	886	769	691	543	525	419	369	258	193	112	82	23	2	—	1
	M. 5285	111	118	104	81	97	511	431	313	109	115	122	123	112	94	95	95	427	472	374	347	322	243	217	179	174	108	91	57	41	12	1	—	—
	F. 5719	92	88	90	105	82	437	428	237	77	86	73	113	105	109	131	139	512	568	512	413	369	392	308	231	195	150	102	55	41	11	1	—	1
ESHER AND THE BITTONS (U.D.)	P. 9489	187	184	171	172	175	899	936	597	182	146	168	151	201	202	163	188	788	872	799	764	596	487	416	299	251	186	143	83	38	15	2	2	—
	M. 4367	103	91	99	75	93	452	469	294	86	78	95	73	93	86	89	73	339	328	369	363	289	231	184	159	105	74	66	36	17	6	—	—	
	F. 5122	84	93	81	97	82	437	476	268	96	68	93	78	108	116	83	115	449	544	430	491	367	256	232	169	146	112	77	47	21	9	3	2	—
FARNHAM (U.D.)	P. 6124	103	119	123	117	116	368	363	335	132	145	115	119	132	109	116	112	493	592	591	449	365	346	322	238	215	155	125	81	51	19	4	—	—
	M. 2927	44	51	69	67	65	297	283	165	69	68	73	61	61	42	49	47	189	225	193	211	155	174	165	110	104	73	56	36	18	13	2	—	—
	F. 3197	59	58	63	50	51	283	289	190	63	71	52	49	71	67	67	63	214	279	198	229	219	172	152	128	111	82	69	45	33	6	2	—	—
FRIMLEY (U.D.)	P. 8469	178	157	169	159	139	502	567	549	153	156	139	142	149	214	298	263	821	891	674	568	422	362	303	250	201	134	78	31	22	7	1	—	—
	M. 4164	101	79	81	87	71	419	399	306	77	78	59	55	56	167	227	169	418	379	295	262	194	154	133	105	95	66	28	19	5	5	—	—	
	F. 4243	77	78	88	72	68	333	368	243	73	78	80	87	93	84	71	94	493	512	379	304	228	208	179	125	106	74	50	12	17	2	1	—	—
GODALMING (M.B.)	P. 9748	191	174	181	172	173	890	862	548	183	279	258	225	234	209	158	188	699	699	673	574	515	415	345	271	216	159	128	71	45	5	1	—	—
	M. 4287	98	79	97	80	85	439	448	284	112	188	171	149	138	99	41	76	270	308	265	258	232	193	157	128	99	77	48	31	22	2	1	—	—
	F. 4461	93	95	84	97	88	437	414	264	73	82	87	83	96	101	97	112	339	391	368	316	263	222	188	143	117	82	89	49	23	3	—	—	
GUILDFORD (M.B.)	P. 13,938	286	265	292	267	329	1449	1499	879	323	365	288	330	288	319	331	311	1239	1452	1164	1134	1002	869	729	537	498	356	299	192	115	38	9	—	1
	M. 7342	140	148	142	127	163	730	747	479	143	133	162	151	162	147	169	149	553	626	515	516	462	364	337	232	215	151	119	82	41	24	—	—	
	F. 8596	156	117	150	140	166	729	732	469	189	172	146	179	146	172	171	162	696	826	649	638	540	445	392	305	288	205	171	110	74	14	9	—	—
HAM (U.D.)	P. 1460	26	33	22	31	33	145	168	167	29	35	39	39	39	39	28	32	114	96	102	103	74	79	163	45	49	39	22	10	5	1	—	—	
	M. 626	12	10	5	15	12	54	73	36	8	11	17	13	8	18	13	12	62	44	47	47	35	37	31	22	21	13	7	5	1	1	—	—	
	F. 834	14	23	17	16	21	91	95	71	21	24	22	17	12	12	15	29	62	52	55	56	39	43	32	23	28	20	15	5	4	—	—	—	
KINGSTON-UPON-THAMES (M.B.)	P. 34,375	830	752	729	792	736	3839	3305	1965	671	672	399	634	563	767	694	765	2581	3113	2896	2427	2017	1588	1308	1043	942	678	545	284	186	59	17	1	1
	M. 16,069	394	372	387	399	349	1911	1762	965	303	346	283	313	304	402	321	343	1142	1366	1274	1130	991	744	586	481	424	361	229	106	68	16	5	1	—
	F. 18,306	436	389	342	393	387	1928	1833	1000	368	326	314	321	279	265	263	362	1439	1747	1592	1297	1026	844	722	567	518	417	316	178	118	43	12	—	1
LEATHERHEAD (U.D.)	P. 6994	88	85	102	86	91	452	439	367	130	117	123	104	119	97	93	96	314	403	314	298	288	225	229	155	118	94	70	45	27	2	2	1	—
	M. 2914	59	41	57	45	45	238	221	224	89	67	78	55	58	51	39	58	165	191	145	133	153	96	108	67	54	41	26	22	12	1	2	—	—
	F. 2380	38	4																															



with the OCCUPATION Table will it is hoped prove useful to the County and District Authorities for some years to come.

In order to explain the utility of these tables for the purposes of vital statistics, and to enable correct inferences to be drawn from the death-rates of the various Districts and the County as a whole; it may be well to state briefly a few facts, which, though already familiar to experts, are not as yet sufficiently well known to those for whom these Reports are prepared every year.

The English Life Table shows that in a population composed of persons at one period of life the death-rate is naturally or normally very different to that composed of persons at another period of life. It might seem hardly necessary to state this fact if the case of the persons aged 75 and upwards be taken in illustration. The mean annual death-rate of males at that age period being 162 per 1000 persons, and of females 148 per 1000 persons living, it would be manifestly absurd to judge of the healthiness of any small local population comprising persons at an advanced age (it might be the inmates of a part of a workhouse) by comparing the death-rate with that of the mean death-rate of populations composed of people living at the several age periods, in fairly average proportions, as they are usually found to be in large towns. In other words, in extreme cases, such as that now mentioned, correction for age and sex distribution is obviously necessary. A mere statement of the death-rate without reference thereto might be very misleading. It would be equally fallacious if in any town area there were from accidental circumstances (*e.g.* the existence of nursery establishments), a very excessive number of persons at the earliest age period, viz.: 0—5 years. For the mean Annual Death-rate in England among children

under 5 years of age for males amounts to 62 per 1000 living, and for females 52 per 1000 living, whereas the mean Annual Death-rate in England for persons of all ages is only 19 per 1000 living.

But the reasons for considering the age distribution in stating the Annual Death-rate of town or district are, of course, not so obvious as in the very exceptional instances mentioned; yet in many instances the corrected death-rate would be found to differ considerably from the crude death-rate. It is for the purpose of drawing attention to this subject, and to the utility of the Tables now given, that these remarks are offered.

It is at the early and late periods of life that mortality is excessive. There is a long period of life during which the average death-rate is very low.

The following are the means of the annual death-rates for age periods between 5 and 35 years of age in England, taken from the 54th Annual Report of the Registrar-General:—

5-10.		10-15.		15-20.		20-25.		25-35.	
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
5.35	5.27	2.96	3.11	4.33	4.42	5.73	5.54	7.78	7.41

It will be seen from the above that in late childhood, adolescence, early manhood and womanhood, fatal illness is much less common than in early childhood, middle age, or towards the end of life.

If, therefore, as not infrequently happens in small residential districts, or in districts in which there are many large educational

establishments there are in consequence an excessive number of young people, it will be at once evident that the inhabitants will naturally have a low death-rate, and it must, therefore, be to some extent fallacious if the death-rate is stated as a proof of good sanitary circumstances without correction for age distribution, and as if it bore comparison with other districts less fortunately situated in this respect.

In purely residential districts of which there are some in the County, there are always an exceptionally large proportion of female domestic servants—that is to say, of persons at ages between 15 and 35, when the death-rate is very low. At Weybridge for example there were as many as 788 female domestic servants at private residences, in a population of only 5,329. In the same district there are as many as 962 females returned at the ages 20-35 in which section the great majority of the 788 would be included. Here then are the elements of a low death-rate, apart from favourable sanitary circumstances. But in this instance as in many others of a similar kind there is another important consideration to be taken into account. When domestic servants fall ill they generally go to their own homes which are usually far away, and which, at any rate, at Weybridge must almost always be outside the registration district. Consequently deaths are not accredited to the registered population, and in this respect the registered population has been aptly described by an expert statistician as including a large number of “immortals.”

THE POPULATION OF THE COUNTY.—At the Census, which took place just about two years' ago, the population proved to be 521,810. Estimated in the usual way the population at the middle of 1902 was, in round numbers, 536,000. But, inasmuch

as for the purposes of this report, it is necessary to eliminate the deaths which occur at the large London Asylums, and some other large establishments (a list of which is given in the tables), the population of these institutions has also to be deducted in the calculation of death-rates. For the purposes of this report the population at the middle of 1902 is estimated, in round numbers, at **523,000**.

COUNTY BIRTH-RATE.—The births in 1902 being 12,351 in number, this amounts to **23·6** per 1,000 of the population.

COUNTY DEATH-RATE.—The deaths in 1902 being 6,238 in number, this amounts to **11·9** per 1,000 of the population.

DISTRICT BIRTH-RATES AND DEATH-RATES FROM ALL CAUSES.—These are set out as usual in a Table similar to that which has been published in previous Annual Reports. The figures have been arrived at, after corrections, for public institutions, and after apportionment of the Brookwood County Asylum population to the several districts. The verification of the returns, and the adjustment of the numbers and calculations have, as usual, entailed a good deal of correspondence with several medical officers of health.

The birth-rates range from the highest 27·4 per 1,000 persons living at Barnes, to the lowest 18·7 per 1,000 persons living at Surbiton.

The death-rates from all causes range from the highest 15·5 per 1,000 persons living at Barnes, to the lowest 7·1 per 1,000 persons living at Caterham.

ZYMOTIC DEATH-RATES.—These refer to the deaths from the "seven principal Zymotic diseases," which term includes "Epidemic Diarrhœa" or "Zymotic Enteritis," the cause of

TABLE A.

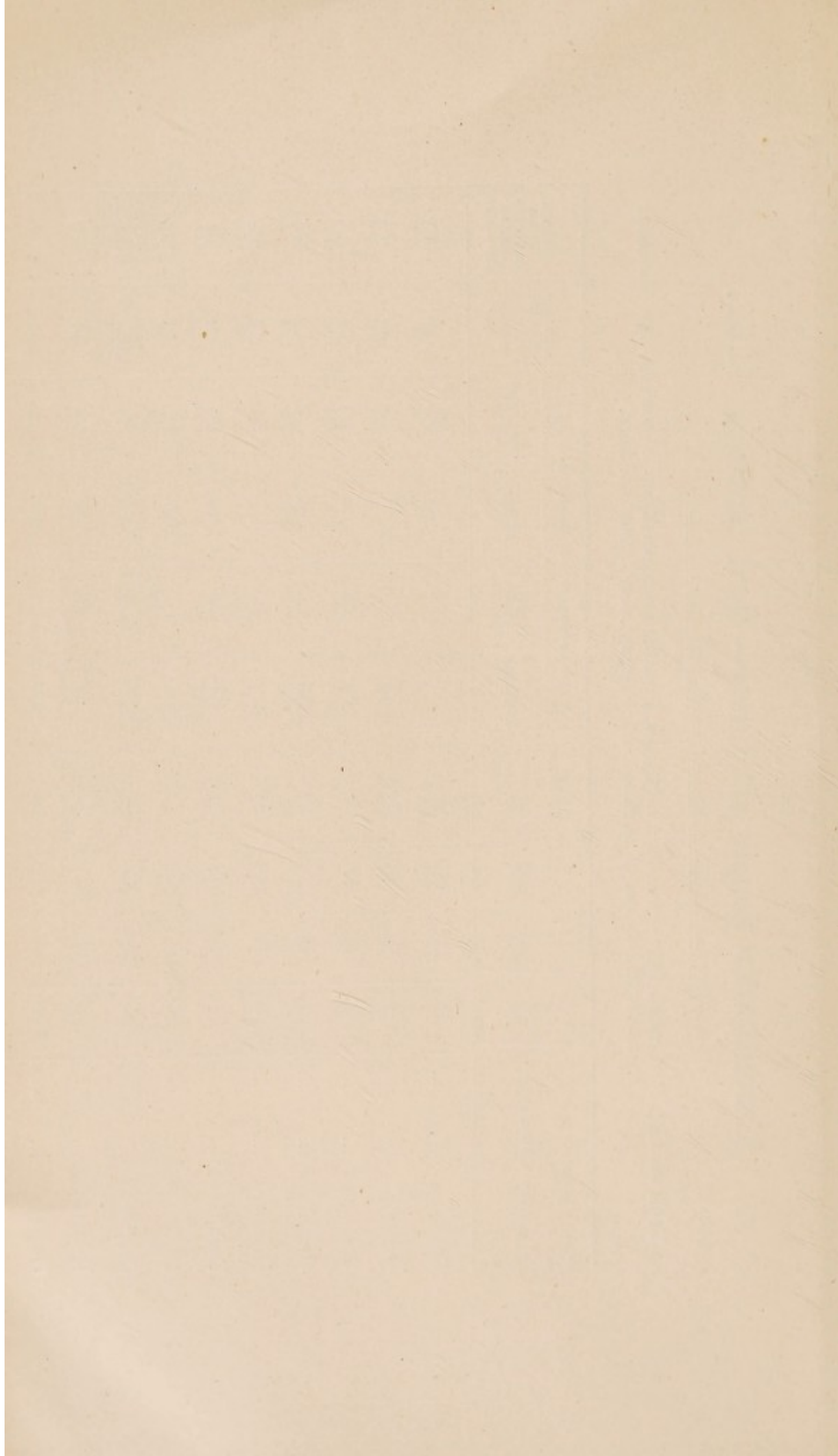
Administrative County of Surrey—Vital Statistics, 1902.

Table showing Birth-rates, Death-rates from all Causes, from the principal Zymotic Diseases, from Phthisis, and from Diseases of the Respiratory Organs, and Infant Mortality.

RURAL DISTRICT.	Population.	Births.	Deaths.	DEATH-RATES TO 1000 PERSONS LIVING.				Deaths of Infants under one year of age.	Deaths of Infants under one year of age per 100 Births.
				All Causes.	Principal Diseases.	Phthisis.	Respiratory Diseases.		
Chertsey ...	12,493	292	125	23.4	10.0	1.0	0.9	0.2	8.6
Egham ...	12,139	307	142	25.4	11.7	1.5	0.7	1.3	6.5
Farnham ...	17,150	456	260	26.5	15.2	0.6	1.5	2.6	12.3
Hambleton ...	22,013	498	233	22.6	10.6	0.3	0.6	1.8	8.4
Guildford ...	21,600	513	262	23.7	12.1	0.5	1.1	2.1	9.1
Dorking ...	9,780	210	112	21.5	11.4	0.6	0.8	1.9	9.5
Epsom ...	19,945	463	242	23.2	12.1	1.1	0.7	1.1	10.6
Croydon ...	37,509	976	424	26.0	11.3	1.0	0.5	1.9	10.8
Reigate ...	17,100	396	211	23.1	12.3	0.8	1.2	2.4	8.8
Godstone ...	18,880	466	245	24.5	12.9	1.0	0.7	1.6	11.1
Totals ...	188,600	4,577	2,256	24.3	12.0	0.8	0.8	1.9	9.9

URBAN DISTRICT.	Population.	Births.	Deaths.	DEATH-RATES TO 1000 PERSONS LIVING.				Deaths of Infants under one year of age.	Deaths of Infants under one year of age per 100 Births.
				All Causes.	Principal Diseases.	Phthisis.	Respiratory Diseases.		
Barnes ...	18,800	501	284	27.4	15.5	3.2	1.2	3.0	11.4
Richmond ...	32,300	641	426	19.8	13.2	1.3	0.8	2.1	9.2
Wimbledon ...	43,744	1,114	497	26.0	11.3	1.0	0.5	1.9	11.7
Ham... ..	1,400	31	18	21.2	12.3	0.0	1.3	0.7	6.5
Kingston ...	35,406	940	512	25.6	14.5	1.4	1.1	2.3	11.8
Esher and Dittons ...	9,703	214	109	22.0	11.2	0.8	0.7	1.9	9.8
The Mole Valley & Coombe ...	6,400	170	81	26.6	12.7	0.5	0.5	1.4	18
Surrey ...	15,406	288	168	18.7	10.9	1.0	0.6	2.0	34
East & West Molesey ...	6,114	138	75	22.6	12.3	0.3	1.1	1.8	20
Chertsey ...	12,961	299	164	23.0	12.7	1.5	1.4	1.8	20
Weybridge ...	5,633	110	55	19.8	9.9	0.9	0.9	1.3	9
Walton ...	10,638	235	105	22.1	9.9	0.1	0.6	2.2	25
Farnham ...	6,600	132	63	20.3	10.2	0.8	0.5	2.2	10
Frimley ...	8,800	182	77	20.7	8.7	0.1	0.8	2.2	12
Godalming ...	8,850	178	70	20.0	7.8	0.0	0.7	1.5	14
Guildford ...	16,200	361	184	22.3	11.4	0.8	1.0	2.4	40
Woking ...	16,000	394	168	24.6	10.5	0.8	0.8	2.0	38
Dorking ...	7,757	170	110	21.8	14.1	0.8	0.8	3.6	20
Leatherhead... ..	4,750	119	64	25.0	13.5	2.3	1.0	1.2	16
Epsom ...	10,470	251	124	24.0	11.8	1.4	0.6	2.6	24
Sutton ...	16,128	364	195	22.6	12.1	1.6	0.7	2.0	40
Carshalton ...	6,940	178	88	25.6	12.7	2.0	1.0	2.3	17
Reigate ...	26,000	665	283	21.7	10.9	0.7	0.8	1.4	52
Caterham ...	7,800	169	59	21.5	7.1	0.4	0.6	0.3	8
Totals ...	394,214	7,774	3,982	23.3	11.9	1.0	0.8	1.9	10.3

In the above Table the following Public Institutions have been allowed for as regards Deaths and Populations, viz.: Bantwood, Cane Hill, Caterham and Epsom Asylums, Croydon Asylum, The Holborn Schools and Workhouse, The South Metropolitan District and Kensington Schools, The Westminster Asylum, Deaths have been included under the district to which they belonged, and the Population of the Asylum appended to the several constituent districts of the County.



such a large mortality among infants under one year of age, in the months of August and September, especially when the season is marked by hot dry weather.

These death-rates ranged from as high as 3·2 per 1,000 persons living at Barnes to 0·0 at Godalming.

PHTHISIS DEATH-RATES.—Much interest attaches to this column of death-rates, as the prevalence of this disease is so closely related to the condition of the dwellings. It will be observed that the rate in the rural districts is as high as that in the urban districts. In the Farnham Rural district it was as high as 1·5 per 1,000 persons living. In the Croydon Rural, Wimbledon, Malden and Coombe, Surbiton, and Farnham Urban Districts it fell to 0·5 per 1,000 persons living.

INFANT MORTALITY.—This is calculated in a different way to the other death-rates. It is most conveniently stated in the small districts of Surrey, in the proportion of deaths of infants under one year to 100 births. Calculated in this way, the rates ranged from the strikingly high figure—13·4 per cent. at Leatherhead, to as low as 5·0 per cent. at Caterham. This is the second year in which the rate recorded at Caterham has been remarkably low.

Among the larger urban populations of north-east Surrey the difference between Richmond and its neighbours will be noted.

It is particularly desirable that careful local inquiry should be made about these returns, and as to the probable cause of the variations.

CARE AND FEEDING OF INFANTS.—Following the precedent of 1900 and 1901, circular-letters on this subject were addressed to the Medical Officers of Health and all the Medical practitioners in the County in 1902. Under the directions of the

County Council, cards containing simple information and elementary facts relating to the care and feeding of infants were sent to practitioners by their request.* There is good reason to think that many lives are being saved by this means. Attention is again directed to the excellent work carried on by the South Wimbledon Day Nursery.

VACCINATION.—The following table is from the Appendix to the Report of the Standing Joint Committee to the Easter Court of Sessions, 1903. It shows the condition of the County as regards vaccination returns :—

VACCINATION ACT, 1898, SEC. 2.

A Return showing the number of Children in the various Petty Sessional Divisions exempted from Vaccination during the year 1902.

County Petty Sessional Division of—	Population, 1901.	Births 1902.	Number of children exempted.				
			1898	1899	1900	1901	1902
Chertsey	42,163	—	8	23	15	31	15
Croydon	40,305	—	34	19	16	18	7
Dorking	17,449	—	184	36	63	50	44
Epsom	51,642	—	91	35	25	26	10
Farnham	30,769	—	8	23	13	22	3
Godstone	27,864	—	13	8	9	8	9
Guildford	59,811	—	89	53	40	55	25
Kingston	53,034	—	13	12	22	23	12
Mortlake	17,821	—	5	2	2	2	0
Reigate	15,908	—	60	18	26	27	21
Wimbledon	46,162	—	21	37	45	33	18
County Total ...	402,928	9666	526	266	285	295	164
BOROUGHs :—							
Godalming	8748	178	39	10	20	17	6
Guildford	15,938	361	357	49	40	68	50
Kingston	34,375	940	11	26	26	62	22
Reigate	25,993	565	69	70	90	93	57
Richmond	31,672	641	6	5	6	5	5
Borough Total ...	116,726	2685	482	160	182	245	140
County & Borough Total	519,654	12351	1,008	426	467	540	304

* The number of practitioners applying for cards was 76. The number of cards sent out in packets was 2,565.

TABLE B.

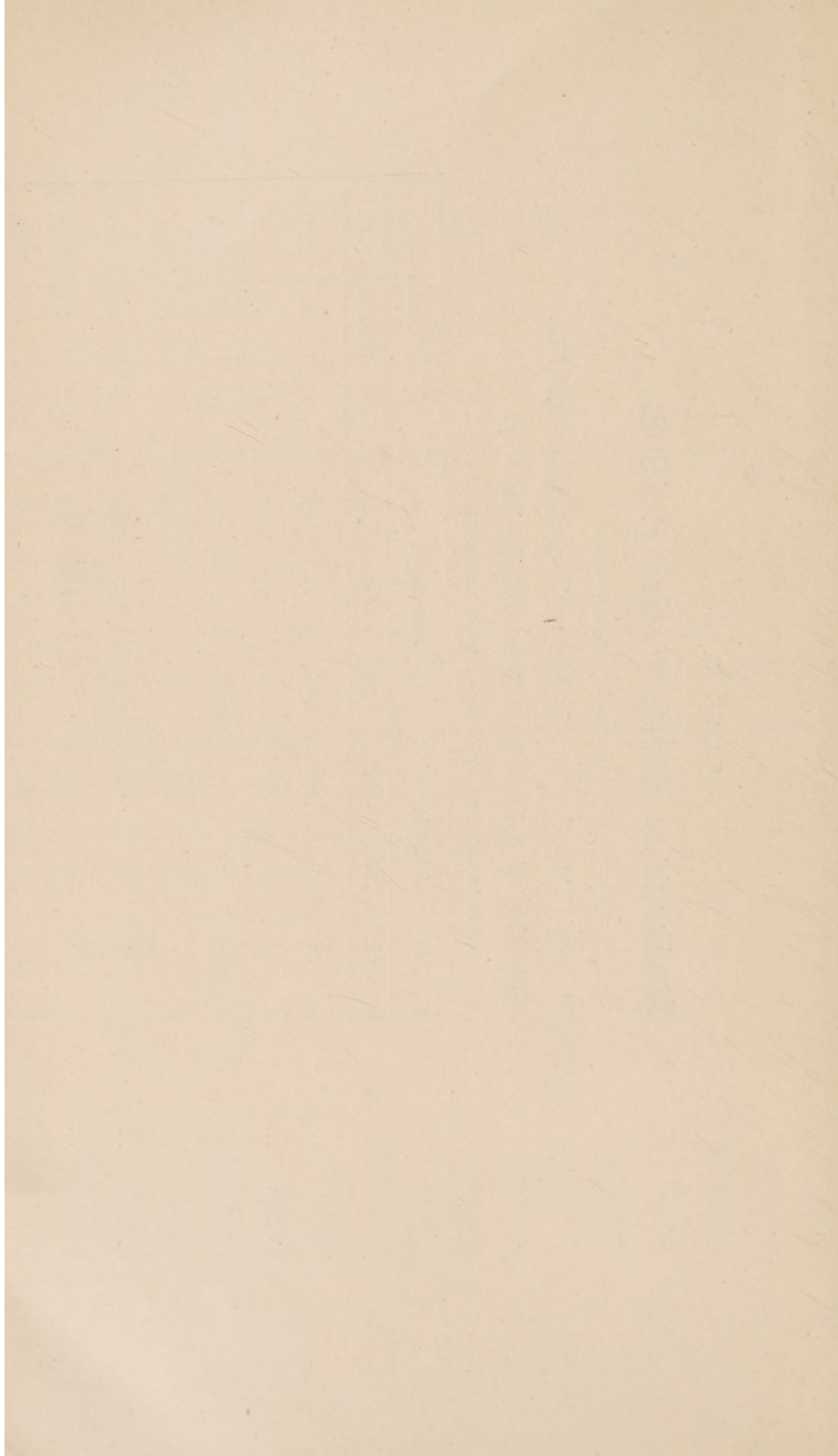
Administrative County of Surrey, 1902.

DISEASES NOTIFIABLE AND GENERALLY HOSPITAL TREATED.

Table showing Notifications, Deaths and Case Mortality.

C.M. = Number of Deaths per cent. of Cases notified.

	SCARLET FEVER.			DIPHTHERIA.			TYPHOID.		
	Cases.	Deaths.	C.M.	Cases.	Deaths.	C.M.	Cases.	Deaths.	C.M.
Barnes	74	1	1.4	60	7	11.6	8	2	25.0
Richmond	92	6	6.5	38	4	10.5	16	0	0
Wimbledon... ..	128	0	0	76	7	9.2	16	3	18.8
Ham	1	0	0	2	0	0	1	0	0
Kingston	81	0	0	136	19	14.0	20	1	5.0
Esher	16	0	0	3	0	0	4	1	25.0
The Maldens and Coombe	43	1	2.3	12	1	8.3	2	0	0
Surbaton	22	0	0	19	3	15.8	2	0	0
East & West Molesey	10	0	0	7	0	0	5	1	20.0
Chertsey U.	79	2	2.5	19	6	31.6	9	2	22.2
Chertsey R.	12	0	0	34	3	8.8	6	1	16.7
Egham	24	0	0	8	7	87.5	2	2	100.0
Weybridge	15	0	0	10	0	0	3	0	0
Wallon	9	0	0	0	0	0	8	0	0
Farnham U.	10	1	10.0	27	3	11.1	0	0	0
Farnham R.	29	2	6.9	22	1	4.5	1	0	0
Frimley	65	0	0	15	1	6.7	0	0	0
Hambleton... ..	13	0	0	23	3	13.0	5	1	20.0
Godalming... ..	22	0	0	4	0	0	1	0	0
Guildford U.	36	0	0	24	2	8.3	11	2	18.2
Guildford R.	37	0	0	42	5	11.9	4	0	0
Woking	29	0	0	24	1	4.2	7	0	0
Dorking R... ..	20	1	5.0	2	0	0	1	0	0
Dorking U... ..	3	0	0	6	0	0	0	0	0
Leatherhead	3	1	33.3	4	0	0	2	0	0
Epsom R.	132	2.	1.5	24	4	16.7	8	2	25.0
Epsom U.	54	1	1.9	1	0	0	7	5	71.4
Sutton	35	1	2.9	5	0	0	7	2	28.5
Carshalton	7	0	0	19	3	15.8	2	1	50.0
Croydon R... ..	156	2	1.3	84	3	3.6	15	4	26.7
Reigate U... ..	14	1	7.1	64	5	7.8	6	1	16.7
Reigate, R... ..	20	0	0	36	4	11.1	3	0	0
Godstone	49	1	2.0	45	2	4.4	9	1	11.1
Caterham	6	0	0	2	1	50.0	2	0	0
TOTALS	1346	23	1.7	897	95	10.6	193	32	16.6
Croydon County Boro'	295	6	2.0	285	29	10.2	59	9	15.3



SCARLET FEVER.

Number of Cases, 1,346. Number of Deaths, 23. Case Mortality, 1.7 per cent. Death-rate, 0.04 per 1,000, or 4 per 100,000 population.

The striking feature about the records of Scarlet Fever of late years has been the comparative mildness of the disease. This is shown by the small number of deaths in proportion to the number of cases notified. The Case Mortality is only 1.7 per cent., and in order to show the death-rate in integral numbers, it becomes necessary to reckon it per 100,000 of the population. About thirty years ago, when Scarlet Fever came to be treated in rate-supported hospitals, it was generally a severe and much dreaded disease. At the present day, on the other hand, it generally gives rise to illness of so slight a form that its nature not infrequently escapes recognition. It will easily be understood that this fact increases the difficulty of stamping out epidemics, and accounts in some measure for the relatively high number of notifications, notwithstanding that a large proportion of the cases notified are now treated apart at "isolation hospitals." As the major part of the expenses of maintaining these institutions is incurred on account of the infectious ailment now under notice it is to be expected that critical inquiry should be directed as to the desirability or policy of segregating all cases alike at hospitals. Moreover, the practicability of checking the spread of infection among the child population through mild or unsuspected cases by a system of inspection at schools, or otherwise, needs further and careful consideration. Such a system may be found to effect a saving in more ways than one. In connection with this important subject it should be noted that active measures are being taken

in some districts for the discovery of mild cases at school, and that valuable work in this direction is reported by Dr. Crocker at Richmond, Dr. Pierce in the Guildford Rural and Woking Districts, and by Dr. Williamson in the Dorking Rural District.

Then, again, the possibility of the spread of Scarlet Fever as well as Diphtheria and Typhoid by means of food or milk supplies, should always be thought of in the inquiries made subsequent to notification, as it is plain that an oversight in this direction may lead to a continuance of cases, notwithstanding all the expenses incurred in isolation and disinfection of houses, clothing, &c., at the public cost. In this connection attention is drawn to the report of Dr. Williamson on a Scarlet Fever outbreak at Epsom, which, by careful inquiry, he discovered to be due to infective milk, and which was stopped by suitable measures of precaution carried out under his directions at the farm from which the source of supply was obtained.

Overcrowding and house sanitary defects generally are usually taken notice of whenever infectious disease of any kind is notified to the Sanitary Authorities. Dr. Brind reports on the condition of Addlestone (where as many as 71 cases occurred) from this point of view especially.

The possibility of unrecognized or undiscovered defects in our prevailing system of hospital management being to some extent, however slight, the cause of the continuance or spread of this malady, which it is the purpose of isolation hospitals not only to treat but to prevent, is present in the minds of us all. It is a subject that deserves the most careful study, and it is well to mention in all Annual Reports outbreaks due to "hospital" cases. Examples of these "hospital,"

or "return" cases, as they are sometimes inappropriately called, appear in the reports for Woking, Malden, and Kingston-on-Thames.

The differences in the Case Mortality of certain districts, which are set out in Table B, deserve attention. It will be noted that at Wimbledon among 128 cases there was no fatal one, while at Richmond, on the other hand, among 92 cases there were as many as six fatal. The statistics of one year may differ from that of another, and this ratio may not be constant, or the cases in the one district may have been of a different type to those of the other. But, however this may be, further inquiry is needed, and this I propose to make in due course with the co-operation of the Medical Officers concerned.

DIPHThERIA.

Number of Cases, 897. Number of Deaths, 95. Case Mortality, 10·6. Death-rate, ·18 per 1000, or 18 per 100,000 population.

As compared with Scarlet Fever, this disease is of a much graver kind. The 897 cases include, it must be remembered, a certain proportion of slight cases, only revealed by bacterioscopic examination, and not giving rise to marked symptoms of diphtheria, and yet the case mortality is over 10 per cent. (*i.e.* 6 times that of scarlet fever) and the death-rate 18 per 100,000 population (*i.e.* 4 or 5 times that of scarlet fever).

In the prevention of Diphtheria, precautions based on the medical examination of school children and the detection of the bacillus continue to be the chief measures; but the success attending them has not been very marked hitherto. From recent observations it would, however, appear that hygienic

measures in a wider sense are needed, and that such ought certainly to include systematic attention to drinking-cups, slate pencils, &c., and other possible media of infection wherever children come together in numbers, whether there is evidence of illness among them or not.

In connection with outbreaks of Diphtheria, defective air-space and ventilation at a school is referred to by the Medical Officer of Health for Woking, and the closure of schools on account of this disease by the Medical Officers of Health for Barnes, Farnham, Redhill, Reigate Rural, and other districts.

Whenever Diphtheria or any infectious disease is notified, it is the usual practice to inquire as to the existence of nuisances in or about dwelling houses. At Barnes, a restricted water-supply is complained of. At Wimbledon, dampness of houses is reported in the low part, and the keeping of fowls close to living rooms is reported in one out of every three houses in which illness from Diphtheria was notified. At Malden, cases are connected with the defective drainage of a particular area. At Merrow, unflushed water-closets and other nuisances prevailed. The carting of London manure into rural districts is from time to time referred to in reports on Diphtheria outbreaks; but practical suggestions for the abatement of the nuisances thus arising are wanted.

The Table B setting out the case mortality in the several districts is of great practical importance, inasmuch as it directly bears on the treatment of the disease. There is a general consensus of medical opinion that the *early* use of antitoxin influences the course of an attack of Diphtheria in a very marked degree. This being so, it is necessary to watch the practice and experience of the several districts, and to especially note

the result of the hospital treatment. The records of one year may be insufficient; but it is worthy of note that the records at Farnham, and other districts provided with hospitals, are very favourable.

In one or two districts, the plan of innoculating with antitoxin the attendants on the sick, or the occupants of infected houses, with a view to protecting them against attack, as we protect against smallpox by vaccination, has been tried. As the liability to attack depends a good deal on the age of the persons exposed to infection, it is necessary to fully state the facts before any conclusions be drawn as to the efficacy of the plan. Any symptoms following inoculation, however slight, should, of course be recorded, in order to render the experience of full value.

TYPHOID.

Number of Cases, 193. Number of Deaths, 32. Case Mortality, 16·6. Death-rate, 0·06 per 1000, or 6 in every 100,000 population.

The number of cases, and with them the deaths and death-rates in the Administrative County, tends to become less and less with the gradual extension and completion of improvements in sanitation. The chief of these relate to water supply, drainage, sewerage, and sewage disposal. A chart appeared in the Annual Report, 1899, showing the comparative prevalence of Typhoid during the five years 1895-9 inclusive in the several urban and rural districts of the County, and giving the principal facts as to sewerage, water supply, &c. This could be brought up to date, if desired, and the records of the whole period during which the inter-notification system has been in operation could be represented in diagramatic form.

The number of cases in Surrey being small for so large a population, the space given in Reports to details about Typhoid might be thought excessive. But, apart from the fact that epidemics of this disease, like outbreaks of smallpox, belong to the category of those which are held to be distinctly preventable by public measures of different kinds, there are other important considerations which more than justify the amount of attention at the present day bestowed on Typhoid and its prevention. In previous years I have already referred to the Typhoid death-rate as an index or measure of the need or efficacy of what is generally termed house sanitation. In further explanation of this statement, I cannot do better than reproduce a passage from a report issued under the direction of the Council four years ago :—

“The attention given in official reports to Typhoid as compared to Consumption would seem to be in inverse proportion to their influence on the death-rate. But in reality the root of the mischief with Consumption is struck at in banishing the causes of Typhus and Typhoid. Dark and ill-ventilated dwellings, such as were formerly common, enabled Typhus to flourish, and at the same time favoured the development of Consumption. Foul and insufficient water supplies, accumulation of filth and want of proper drainage, both for towns and houses, propagated Typhoid, and maintained Consumption prevalence at a high rate. In lowering the sub-soil water of towns and in thus rendering the foundations of houses drier and cleaner, the conditions which enable Typhoid to exist have been removed, while at the same time the prevalence of Consumption has been markedly reduced. If the Typhoid death-rate should in a few more years be brought almost to the vanishing point, it is safe to predict that Consumption will tend to disappear with it. There is analogy between these two diseases in other respects besides those which may be designated “sanitary circumstances,” for both are to some extent infectious in their own peculiar and special ways. In recognition of this fact, and with a view to assist in removing the cause of so much sad and lingering illness

the Sanitary Committee and the County Council, towards the close of the year under notice, resolved to print leaflets on the subject of the prevention of Consumption for the use of District and Parochial Councils." — *Surrey County Council Medical Officer's of Health Annual Report, 1898, with an account of the Systems of Sewage Disposal in the County, p. 15.*

In addition to the usual investigation of local sanitary conditions, close inquiry has been made by the District Medical Officers of Health as to the likelihood of the illness arising from an infective food supply. In the whole 193 cases, two were definitely ascribed to this cause (polluted oysters in one case, and a contaminated "ice-cream" in another), and six others were perhaps due to infective oysters, mussels, watercress, and ice-creams.

The Case Mortality sufficiently shows that Typhoid is still to be regarded as a severe and dangerous illness. In connection with this subject, it is well to bear in mind the different practice of medical men in some districts in notifying cases of Typhoid, Enteric, or Continued Fever. Mild cases of ill-defined continued fever grouped under this head in the Notification lists, obviously tend to make the ratio of deaths to cases small. In Barnes the case mortality is high, but in the neighbouring district of Richmond it is low. At Farnham the attack rate, or number of notifications in the little town, in proportion to population, which was formerly very high, as will be seen from the chart in the Report for 1899, is now much reduced, and last year Dr. Sloman was able to report that there had been no case for a whole year for the first time in his remembrance.

Cases of Typhoid occurring in slums or poor districts are now mostly treated at hospitals in almost all the Urban Districts, including Kingston-on-Thames, where special arrangements

have been made with the Authorities of the New Victoria Hospital. This improved state of things has been slowly brought about purely by the influence of the County Council, the Local Sanitary Authorities becoming gradually convinced that money is well spent in this direction. A change for the better is thus effected in more ways than one, for, besides diminishing the opportunity of spread, the fatality of the disease is certain to be reduced.

At Epsom, Dr. Williamson, remarks on the remarkably rapid and fatal termination of four cases which occurred in March, 1902,

At Egham the rate suggests, at first sight, imperfect working of the Notification system, but Dr. Woodforde assures me that there were only two attacks, both unfortunately fatal.

MEASLES.

Number of Deaths, 106; Total Population, Administrative County, 523,600; Death-rate, 0·2 per 1,000 of population.

Measles causes a mortality of 20 deaths in every 100,000 of the population. This is a rate higher than that from Diphtheria, and five times that from Scarlet Fever. As these three diseases chiefly affect children at school age, it seems strange that the one now under notice should attract so much less public attention than the other two. Its fatality depends a good deal on the social rank or "class" of the families in which the disease appears. Not because the attacks are of a more severe type, and not altogether because they become more virulent in kind through the insanitary conditions of the poorer dwellings, but in large measure owing to the habit of regarding the disease as

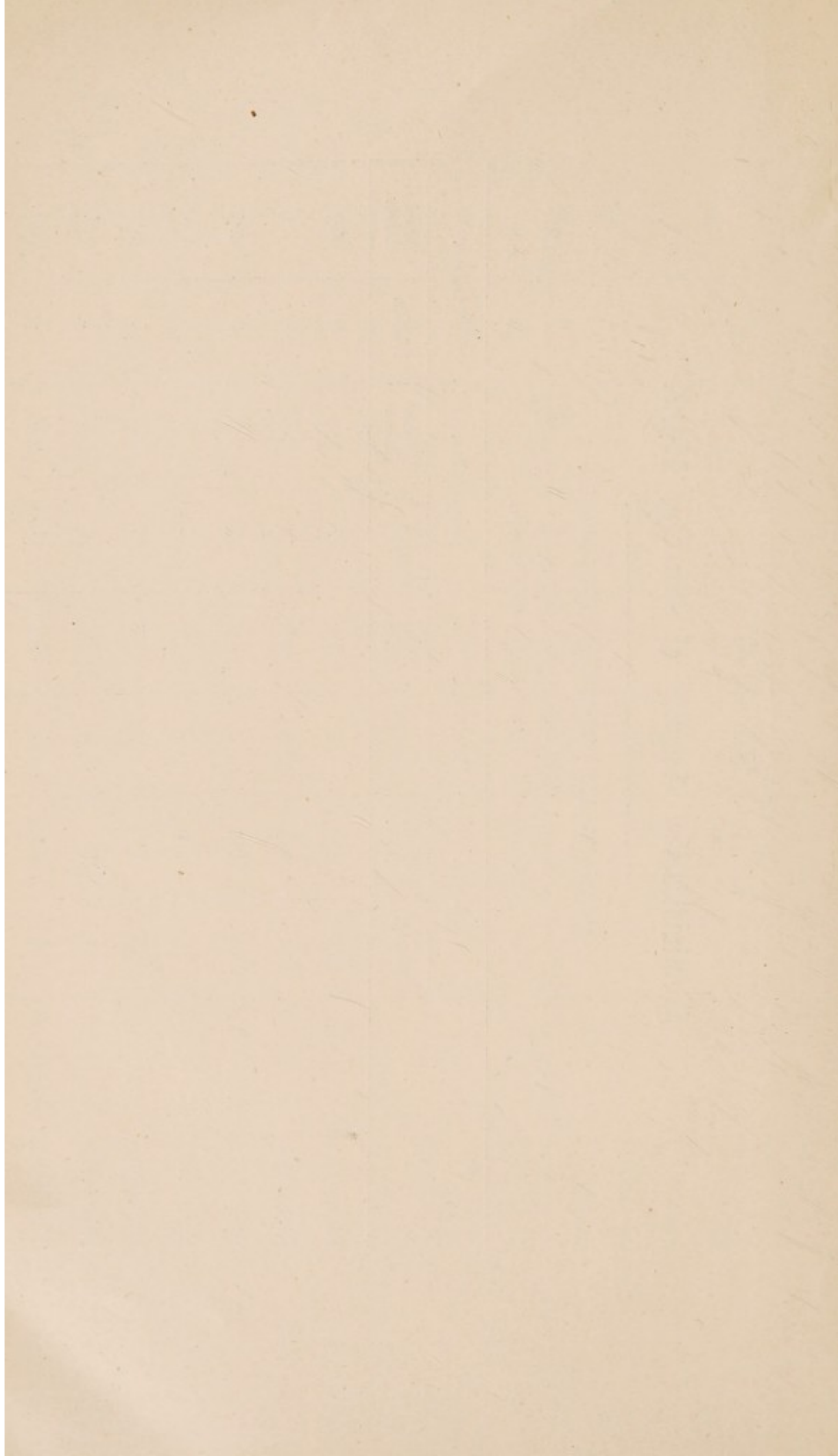
TABLE C.

Administrative County of Surrey, 1902.

MEASLES AND NOTIFIABLE DISEASES.

Table showing number of Deaths and Death-rates per 1,000 of the population of the respective districts and of the County as a whole.

	MEASLES.		SCARLET FEVER.		DIPHTHERIA.		TYPHOID.	
	Deaths.	Death Rates.	Deaths.	Death Rates.	Deaths.	Death Rates.	Deaths.	Death Rates.
Barnes	18	1.0	1	0.1	7	0.4	2	0.1
Richmond	17	0.5	6	0.2	4	0.1	0	0
Wimbledon	11	0.3	0	0	7	0.2	3	0.1
Ham	0	0	0	0	0	0	0	0
Kingston	8	0.2	0	0	19	0.5	1	0.1
Esher	1	0.1	0	0	0	0	1	0.1
The Maldens & Coombe	0	0	1	0.2	1	0.2	0	0
Surrey	10	0.7	0	0	3	0.2	0	0
East and West Molesey	0	0	0	0	0	0	1	0.2
Chertsey U.	2	0.2	2	0.2	6	0.5	2	0.2
Chertsey R.	2	0.2	0	0	3	0.2	1	0.1
Egham	1	0.1	0	0	7	0.6	2	0.2
Weybridge	3	0.5	0	0	0	0	0	0
Walton	0	0	0	0	0	0	0	0
Farnham U.	0	0	1	0.1	3	0.4	0	0
Farnham R.	1	0.1	2	0.1	1	0.1	0	0
Frimley	0	0	0	0	1	0.1	0	0
Hambleton	1	0.1	0	0	3	0.1	1	0.1
Godalming	0	0	0	0	0	0	0	0
Guildford U.	0	0	0	0	2	0.1	2	0.1
Guildford R.	1	0.1	0	0	5	0.2	0	0
Woking	1	0.1	0	0	1	0.1	0	0
Dorking R.	0	0	1	0.1	0	0	0	0
Dorking U.	0	0	0	0	0	0	0	0
Leatherhead	1	0.2	1	0.2	0	0	0	0
Epsom R.	2	0.1	2	0.1	4	0.2	2	0.1
Epsom U.	0	0	1	0.1	0	0	5	0.5
Sutton	6	0.4	1	0.1	0	0	2	0.1
Carshalton	4	0.6	0	0	3	0.4	1	0.1
Croydon R.	4	0.1	2	0.1	3	0.1	4	0.1
Reigate U.	1	0.1	1	0.1	5	0.2	1	0.1
Reigate R.	0	0	0	0	4	0.2	0	0
Godstone	11	0.6	1	0.1	2	0.1	1	0.1
Caterham	0	0	0	0	1	0.1	0	0
TOTALS	106	0.2	23	0.04	95	0.18	32	0.06
Croydon County Boro'	30	0.2	6	0.1	29	0.2	9	0.1



inevitable and still more so to the too common belief that it is of a trivial nature. No attempt is made to avoid infection by contact with the sick; and, worse still, neglect of precaution at critical periods of illness very frequently conduces to those complications which most often account for its unfavourable termination. In the cold weather of our Winter, and uncertain Spring or early Summer, these complications take the form of inflammatory conditions of the lungs and breathing apparatus generally. They are sometimes due to want of proper clothes and bedding and consequent exposure of the little sufferers, but more often to the stuffy atmosphere of the confined dwelling and sleeping rooms, the temperature of which, instead of being fairly uniform, is subject to marked alternations by occasional draughts of cold air from the opening of doors and windows.

During the last twenty or thirty years there has been no reduction in the death-rate from Measles, such as that which has taken place in Small-pox, Scarlet Fever and Typhoid. With the extension of systematic infant vaccination, Smallpox in its hideous and lethal form has practically disappeared from among children; its fatality being transferred to adults who have not secured the protection afforded by efficient re-vaccination. Scarlet Fever and Typhoid have been mitigated and reduced by isolation, better hygienic treatment, and greatly improved water supply, drainage, &c. But Measles maintains its death-rate level, and is in this respect an exception to most of the diseases of the Zymotic group. The reason is that measures of prevention that are really suitable are less easily applied.

Anyone who has studied the causes of infant mortality will realise what a difficult task is before those who work for their removal. Education in its broadest sense may do much in the future, so

also may that gradual social betterment of the masses to which a great deal of the reduction of preventable diseases is believed to be due in many parts of the world.. But for immediate purposes something more is wanted, and it is to that phase of the question that the attention of medical officers is necessarily directed.

Notification was naturally thought of several years ago as likely to be helpful. But it was also recognised at the outset that with Measles the full advantage that might result from isolation, even when practicable, could not be expected owing to a medical fact of importance, viz : that the rash, which is the danger-signal in some other children's diseases, only appears late in Measles when the child has already been in an infective condition for some days. But, as the patient continues to be infective afterwards, notification may still be of use, especially if there be hospital provision for cases when there is "no proper lodging accommodation." I think the time has now arrived when the Hospital Authorities in the County might well be asked to consider the practicability of using some of their wards for such a purpose.

Still, further advantage has been expected from the opportunity the notification system affords of impressing on mothers the serious nature of the illness, and giving them advice as to its management. But, in this respect, the experience in the County has not hitherto been very encouraging. In some fairly large and well-administered districts, Notification has been in operation for a number of years. In the Croydon Rural District, the Cases and Deaths have been very carefully recorded since 1892 by Dr. Darra Mair and Dr. Fegen. Comparing the five years, 1892-6, with the next five years, 1897-1901, I find

no evidence from their reports of marked improvement. There has been no reduction in the number of cases. On the contrary, the figures for the latter period are 2728 against 2287 for the former. Too much importance must not, however, be attached to this, as the difference may be accounted for by the major and minor epidemic waves which mark the variations in prevalence of Measles. There are other considerations affecting the question which would be better understood locally. But taking the case-mortalities, which for similar periods of years in the same district may be fairly compared, I find no such marked difference as to warrant the belief that Notification has led to important results. In the first period there were 43 deaths among 2287 cases, giving a case-mortality of 1.9 per per cent. In the second period there were 46 deaths among 2728 cases, giving a case mortality of 1.7 per cent. The reduction of 0.2, or one-ninth of the whole case mortality, is insignificant. The total number of cases during the whole period of 11 years recorded in Dr. Fegen's tables is 5651, and the number of deaths 93. This gives a case mortality of 1.6.

The experience of Wimbledon is not so long. Notification has been in operation for three years only. In 1900 the cases were 1,067, deaths 17, and the case mortality 1.6 per cent. In 1901, the cases were 453, the deaths 10, and the case mortality 2.2 per cent. In 1902, the cases were 1,026, the deaths 11, and the case mortality 1.1 per cent. The opinion of Dr. Pocklington is rather adverse to a continuance of the notification system.

On the other hand, it should be mentioned that at Farnham Measles became notifiable in November, 1901, and during 1902 there were 61 notifications but not one death, the cases having occurred during the coldest period of the year. The Medical

Officer of Health attributes the favourable results to the fact that he was able to give advice personally as to the management of the cases. There can be no doubt that the official visit of the doctor, which is possible in a small town, would have an excellent effect. The thanks of the district are due to Dr. Sloman. But he, himself, will probably realize that the figures are as yet too small to warrant any conclusion.

So far, therefore, as our experience goes at present, notification of Measles does not appear to have produced any striking results. But it is possible that more might be done to impress on the parents the risks of the disease, and in some cases prosecutions for wilful or negligent exposure of children to infection are called for. The possibility of the district and hospital authorities throughout the county affording hospital accommodation, even for a limited number of cases, might also now be considered.

IV.—PHTHISIS PREVENTION.

Number of Deaths 418. Total Population, Administrative County, 523,000. Death-rate 0·8 per 1000, = 80 per 100,000 population.

In comparing the above figures relating to Phthisis with those in foregoing sections of the report, it will be seen that the mortality from this cause far exceeds that from all the notifiable Diseases together, including Measles.

For this reason and also because Phthisis is to some extent an infectious disease, it has been argued that it should be brought within the category of the notifiable diseases. But there are powerful reasons against this proposal at the present day. These are found to be chiefly based on the very imperfect knowledge or understanding of the general public of the different meanings attached to the term “infectious,” as applied in Medicine to diseases which differ from each other essentially both in the manner and extent to which they are capable of spreading.

The infectious diseases comprised in the schedule of notifiable diseases, have hitherto been those of strong infective power, and more or less of a kind that inspire panic or public alarm. Such alarm does not however, as a general rule operate in a manner prejudicial to the unfortunate sufferers, who at the worst only become subject to temporary inconvenience. It is totally different with Phthisis, and this fact is so obvious that it is surely unnecessary to dwell upon it here. Unreasonable alarm in this case may and does give rise to individual hardships.

such as experience in other departments of preventive medical work has taught us to avoid in the broadest interests of the public. Precautionary measures are, of course, in the highest degree desirable. But these will be better secured in the end by explanation of the character and extent of infectiousness and preventing undue alarm to the healthy from ordinary association with the sufferers. It seems necessary that such a process of instruction should precede the more comprehensive and systematic notification that is sometimes advocated. It ought also to be continuously urged that the steady improvement of "the dwelling" which has worked such good in the past should not be neglected for the more showy and fashionable methods of attacking the disease.

Voluntary notification is encouraged in the county, the medical certificates being paid for as in the case of notifiable diseases. The medical officers for Barnes, Richmond, Kingston-on-Thames, Surbiton, and Godstone record the fact. Several other district reports, including those of Dr. Jacob and Dr. Williamson, imply that notification of this kind is in operation inasmuch as they record the number of cases in which their respective Councils or other Sanitary Authorities have assisted poor people in ascertaining the nature of their illness, as well as by freely disinfecting and cleansing their dwellings where such processes are deemed necessary. Dr Fegen has made 53 Bacteriological examinations of the sputa of persons residing in the Croydon Rural District, who it was thought might be sufferers from Phthisis, and he discovered the Tubercle Bacillus in no less than 29. He adds, very significantly, that "the compulsory notification of Phthisis will be likely to defeat the object in view, as undoubtedly many cases which come to official knowledge,

and in which precautionary measures become adopted in consequence, would be concealed."

Sanatoria.—It is well to remember that Phthisis infectivity is of very low intensity, and that in thoroughly sanitary houses, or in the light and airy wards of well-constructed hospitals and infirmaries, the disease is comparatively harmless. Still, the "open-air treatment" is so valuable in certain cases that it is desirable opportunity should be afforded for its application where indicated. In company with Dr. Crocker I have lately visited the new Workhouse Infirmary Buildings at Richmond. They are planned on most modern principles, and include some provision for this special kind of treatment.

Phthisis Houses.—Before proceeding to that portion of this Report, which relates to the general sanitary circumstances of the people, it is desirable to refer to the subject of "phthisis houses," which has been noticed especially by the medical officers of health for Richmond, Barnes, and Kingston, in the last two or three Annual Reports.

At a recent meeting of the British Medical Association, Dr. Johnson, a medical practitioner and member of the Richmond Town Council, gave several remarkably instructive cases which tend to show that in ancient towns (of which there are a few in Surrey) the prevalence of Phthisis is partly "due to the comparatively large number of old, dusty, insanitary, narrow-windowed, and ill-ventilated houses, many of which have had occupiers infected with the disease, and in which no attempt has been made to disinfect the rooms." Dr. Johnson's valuable contribution to this subject appears in the British Medical Journal of March 14th, 1903, pp. 598-600, under the head of "Phthisis and House Infection."

V.—THE SANITATION OF DWELLINGS AND HOUSING OF THE WORKING CLASSES.

In the Report for 1901 I was able to show that, as the elementary requirements of house sanitation—viz., the domestic water supplies and proper means of drainage—have been satisfactorily dealt with in practically all the urban districts as well as in a large number of villages and rural districts, more attention might be expected to be given to the details of house sanitation. These include the construction of internal drainage, the ventilation of rooms, the repair, cleanliness, and prevention of dampness in houses generally. The chief work of the sanitary inspector lies in investigating, reporting, and taking further authorized proceedings with regard to defects of this class. In well-administered districts this is generally carried out under an expert medical officer, who can appreciate the relative importance of “nuisances” from the health point of view; but for effective action the support of the Local Sanitary Authority—the Municipal or District Council—as a body is, of course, required. Indeed, sanitary progress of this kind mainly depends upon it, for however earnest and energetic officials may be, they can never take the place of the elected representatives of “the people”—which term includes of course the cottagers and the occupiers of tenement property. It is an old saying among sanitary officials “you can do so much *with* your authority and so little *against* them.” It may be well to repeat this trite remark for the benefit especially of those who live in rural districts; for it would undoubtedly add to their health and comfort at home if the cottagers generally

took more pains to see that their interests in respect of sanitary administration were well represented on what is practically the governing and executive Board for the district.

One very essential step towards material improvement is by a proper recognition of the value of a sanitary inspector's work apart from that of a surveyor. It can not be too often repeated that, as a general rule, the combination of the offices of Surveyor and Inspector works badly from the point of view now considered. When the latter office is merged in the former, the tendency is towards its extinction so far as its useful activity is concerned. Here and there an example may be quoted to the contrary, but these are exceptions to a rule, which holds good generally. The reasons for this state of things are understood by administrators and officials, and have already been sufficiently discussed in former Annual Reports to the County Council.

The representations of our Council on this subject have not been confined to published reports; but have also, for some years, been continuously urged wherever I have met my colleagues on any question relating to House Sanitation. It is satisfactory to record that they have on the whole been effectual; that considerable progress has been made in the ten years 1892-1901; and that further improvement took place in 1902. The Urban District Councils of Esher and Epsom, each with a population of about 10,000 or over, decided last year to appoint a sanitary inspector whose office is to be distinct from that of the surveyor. The same course has been adopted in the wide Rural District of Godstone, which in this respect followed the example of the equally wide though less populous district of Dorking Rural. These two districts are separated by that of Reigate Rural, as to the

sanitary condition of which complaints were properly addressed to the County Council by Henry Taylor, Esq., of Leigh. There, too, at last, upon urgent official advice, the local Council determined to make the very necessary appointment of an independent sanitary inspector. In conjunction with the Medical Officers of Health I have made long days of inspections in these rural districts, and have taken notes thereon. The result has been to satisfy me that by the appointment of an inspector for the last-named Rural District, the chief cause for complaint will be removed. From my experience, which extends over thirty years, and which relates to both town and country, Medical Officers of Health receive much less assistance in promoting the sanitation of dwellings from the cottagers and occupants of houses in country than in town districts. Any help that can be afforded in this direction is therefore most gratefully received.

Chertsey is now the only wide rural district which, so far as the Inspector's appointment goes, is officered on the old system. On the other hand, among the urban districts, Kingston-on-Thames has only one Sanitary Inspector (who is also the Market Inspector). The population of the borough is 36,000. The standard fixed by the Royal Commission which sat in 1884 was at least one Inspector to every 25,000 of the population.

There are some other districts in the County in which further assistance is evidently required.

The list of the Staff of the Sanitary Districts in the Administrative County is given at page 42 of the Report for 1901, which was issued as recently as last June. In that publication, which can easily be obtained for reference, a full account of the work in each district is printed. It will probably be sufficient if on

this occasion I simply append notes to each district, showing further progress or any marked deficiency.

The chief points to be considered in the examination of the "returns," or "statistics," of a Sanitary Inspector are (*a*), under the Public Health Act: 1.—The number and kind of inspections. 2.—The number and kind of nuisances actually dealt with in consequence of those inspections. 3.—The number of houses improved and the extent of the improvements effected. 4.—The number and kind of overcrowding nuisances abated. (*b*) Under the Housing of the Working Classes Act: 5.—The number of houses unfit for habitation, but which, after "closing orders," have been rendered fit by structural and other improvements. 6.—The number of houses so unfit for habitation as to require demolition.

One of the tests of a good Inspector's report is the way in which the particulars of information are classified, and the facility afforded to the independent observer for verifying such information. Discretion is required in drawing up such a return, as it is undesirable to give details the publication of which may be fairly objected to.

I have again examined the returns from these points of view, and (with the knowledge I have of the districts, derived from numerous Local Government and special inquiries) have appended notes which may be of service to those specially interested in this subject. The Districts are grouped as in the Report for 1901.

1. DISTRICTS, METROPOLITAN, OR SUBURBAN TO LONDON.

BARNES.—Population 18,300. Dr. Crookshank, Medical Officer of Health. Mr. Grylls, Inspector. The effect of extensions of the "flat system," "double tenements," and "maisonettes," on the public

health are fully discussed. Dr. Crookshank also explains the conditions which may be deemed to render houses unfit for habitation in his district. Twelve houses have been rendered fit or demolished.

RICHMOND.—Population 32,300. Dr. Crocker, Medical Officer of Health. Chief Inspector, Mr. W. Parsons. Two Assistant Inspectors. The whole work of the department is immediately under the Medical Officer of Health. There are many points of excellence in this report, but it might be better if the localities in which the principal improvements, which are of "a permanent nature," were generally indicated. The number of houses inspected was 1022. Three houses were dealt with under Part II. of the Housing of the Working Classes Act. The houses built by the Corporation under Part III. of the Act continue to be in a satisfactory condition, and are all occupied.

WIMBLEDON. — Population 43,744. Dr. Pocklington, Medical Officer of Health. Mr. Johnson, Inspector, with Assistants. Sufficient particulars are given, respecting nuisances abated and localities improved, to allow of independent verification of returns. The Thornton Road houses referred to in a previous report have been demolished and rebuilt. Seven cases of overcrowding were discovered and dealt with. The work of the Inspector is highly commended by Dr. Pocklington, and as I have had good opportunities of observation, I desire to join in this commendation.

KINGSTON-ON-THAMES.—Population 35,400. Dr. Beale Collins, Medical Officer of Health. Mr. Pearce, Inspector. The Abstract of Notices for the year 1902 include the following: Choked and defective drains 210, cleansing and disinfection of houses 220, inspecting urinals adjoining the public roads 840, accumulation of manure, offal, etc., 120, canal boats and barges inspected 50. Five cases of overcrowding of houses were reported. Instances of overcrowding are said to be few. The Sanitary Committee of the Borough has approved of Bye-laws for houses let in lodgings. The Medical Officer of Health calculates that they will affect nearly all the worst places in the town. As the Borough contains 7,100 tenements, there must be a great deal of inspection needed.

SURBITON. — Population 15,406. Dr. Owen Coleman, Medical Officer of Health, Mr. Nesfield, Inspector. It is very satisfactory to refer to this district, for it was at Surbiton that an outcry arose for proper sanitary inspection in 1892, and it was there that the movement commenced to sever the offices of surveyor and inspector. It originated in a report, which it was my duty, after a careful inspection of the district, to make to the Sanitary Committee of the County Council. This is now nearly 11 years ago. The advice given was not immediately acceptable to the Local Authority, but the subject was constantly brought up by Dr. Coleman and myself, and in 3 years time a proper Sanitary Inspector was appointed. The justification of this important step may be found in the reports of the inspector. They are some of the best of its kind that I know of. No less than 815 houses have had their drainage reconstructed under Mr. Nesfield's superintendence. This has been the result of house to house inspections, which are annually recorded, and which, in the year under notice, relate to 212 houses. An excellent feature in the report is that the situation of the improved houses is so indicated as to be easily identified. The same system might with advantage be followed in the case of the paving of backyards and preventing nuisances from stagnant water, damp walls, as well as of the more important structural works for the abatement or removal of nuisances injurious to health.

ESHER AND DITTONS. — Population 9703. Dr. Senior, Medical Officer of Health. Inspector. Appointment Vacant. The Medical Officer of Health remarks "it is not an uncommon thing to find the interior of cottages which have not been renovated within a period of from 15 to 20 years." The Medical Officer of Health further reports as follows:—

"During the past year or two I have recognised that the work of the Department of the Surveyor and Sanitary Inspector were both increasing at such a rate that the time was fast approaching when it would become my duty to draw your attention to this matter and advise that a separate Inspector of Nuisances should be appointed. I took this step towards the end of the year, and am convinced that your resolution to appoint a separate official to

discharge the important duties of Sanitary Inspector is one that is sure to prove of great benefit to the district."

"As Mr. Henderson's duties as Sanitary Inspector are about to cease in March, I should also like to say that it is with regret that I am losing him as my Assistant in the sanitary work of the district. I have found him unfailing in tact and energy, and his large experience in local affairs has always been of great value."

MOLESEY.—Population 6114. Dr. Knox, Medical Officer of Health. Mr. Stevenson, Surveyor and Inspector. This is a district in which a sewerage system has been introduced of late years, and consequently the work of house improvement has largely consisted of making effective connections of old houses with the sewers and abolishing cesspools. This work has been well carried out under Mr. Stevenson. The total number of old houses connected to main sewers is 987, and the total number of new houses connected with main sewers is 143. Practically the whole of East Molesey must have been dealt with by this time.

MALDEN AND COOMBE.—Population 6400. Dr. Rashell Davison, Medical Officer of Health. Mr. Simmons, Inspector. This is the first report of the Inspector since the offices of Surveyor and Inspector were separated. An extensive list of "details of sanitary improvement works carried out during the year" is given. The figures in the summary work out to a very large total, but they are made up of heterogeneous items, and, except in the case of a house at Kingston Vale, and the houses in Idmanston Square, no indication is given of the localities in which the most notable improvements have been effected; neither is their relative value sufficiently explained by the table or the text of the report. It would be better if this were done in future. There is evidently a great deal to be done in this district.

***CROYDON "RURAL."** — Population 37,500. Dr. Fegen, Medical Officer of Health. Inspectors, White, Rabbetts, and Payne, all immediately under the Medical Officer of Health. This district includes Wallington, Merton, Mitcham, and the growing neighbourhood of Tooting Station, all of which localities are more of an urban than a rural character, and comprising, as they do, a large proportion of tenement property and houses let at weekly rents,

* Has only rural powers but is chiefly urban in character.

need a great deal of sanitary supervision. It is again highly satisfactory to refer to the administration of the district, for it was as far back as 1893 that the appointment of Medical Officer of Health for Croydon Rural was put on a proper footing, as recommended in the published report of the County Council in 1892. In starting this office, Dr. Darra Mair, who was the first to be appointed as head of the Health department of the District Council, had all the advantage of the assistance I readily gave him, and benefited to the full by the experience I had acquired in the sanitary administration of large districts. He left the office in a good state of organization when he was appointed to the Local Government Board in 1898, and this organization has been thoroughly well maintained and improved in several directions by Dr. Fegen during the last five years.

Some idea of what the daily and hourly work of a department of this kind entails, may be gathered by the number of official visits to premises. In 1902 they numbered 9244. The area of the district is 21,877 acres.

In recording the Sub-district Inspectors work, Dr. Fegen classifies the nuisances according to their character. The only suggestion I have to make is, that the localities in which the most important improvements have been carried out, might with advantage be more closely indicated.

Nine cases of overcrowding were discovered and dealt with. These were by no means all the instances of overcrowding that came within the knowledge of the Medical Officer of Health; but the others were not in his judgment of a kind that it was desirable to interfere with under all the circumstances of his district.

Twenty-four notices were served under the Housing of the Working Classes Act, and in six instances Justices' closing orders were obtained. In four instances the houses will be demolished, and all the other houses have been thoroughly repaired and rendered fit for habitation.

2. URBAN DISTRICTS IN RURAL SURREY.

CHERTSEY. — Population 13,000. Dr. Hanslow Brind, Medical Officer of Health. Mr. R. Hill, Inspector. The District includes Addlestone. The question of a sewerage scheme has absorbed

almost exclusive attention for some time past. It will be three years or more before the system is in operation, and in the meanwhile the attention of the Inspector will be chiefly required to repress the nuisances from cesspools. As illustrating the increased amount of work carried out by the scavenging department, Dr. Brind mentions that, whereas in 1895 the number of loads of sewage (each 250 gallons), removed from the vicinity of dwellings, was 9262, last year it was 16,983. A representation was made under the Housing of the Working Classes Act, with regard to a dwelling situated at Goosepool.

WALTON-ON-THAMES. — Population 10,638. Dr. Hanslow Brind, Medical Officer of Health. Mr. Kinch, Inspector. The work of the department is fully set out in tabular form, and is approved by Dr. Brind. The number of nuisances dealt with is large, and the Inspector reports that many of the improvements effected are of a permanent nature, and he trusts that the premises will never again require attention. A classification of the more important of these improvements is desirable, together with some general reference to the localities in which they have been effected. Nine houses in the Walton Road, and one in the Oatlands Ward, were dealt with under the Housing of the Working Classes Act. Eight of them had already been closed at the time of reporting.

WEYBRIDGE. — Population 5533. Dr. Hanslow Brind, Medical Officer of Health. Mr. Crawshaw, Surveyor and Inspector. The district being chiefly residential there is not so much need for inspection as elsewhere in the neighbourhood. But it is evident that when occasion arises the necessary attention is given.

FARNHAM. — Population 6500. Dr. Sloman, Medical Officer of Health. Mr. Cass, Surveyor-Inspector. This report contains no account of the Inspector's work, except that on inspection of the Lodging houses on a certain night in February, a very slight excess was discovered in the number of persons recognized as allowable. Dr. Sloman has made house inspection for his own information. He came to the conclusion that some houses were overcrowded, and he gave evidence to that effect before a Commissioner, who came to Farnham to hold an inquiry on the subject of granting a loan to the District Council for the erection of twenty workmen's

dwelling. Two sites have been obtained for the purpose, and the cottages will be built. Three houses have been reported as unfit for habitation in their present state. The houses are specified in the report, and Dr. Sloman adds: "I believe the owners intend to repair them and render them fit." As regards the "Hop-pickers Barracks," there was little occasion for their use, as so few outside pickers came to the town in 1902.

FRIMLEY.—Population 8800. Dr. Nevil P. Cadell, Medical Officer of Health. Mr. Hartfree, Inspector. There is a good deal of inspection wanted at Camberley. Much of the work at present consists in furnishing proper water supplies, and rectifying drainage defects, at cottages and tenements. A large number of inspections and re-inspections of works in progress is recorded.

GODALMING.—Population 8850. Dr. Dundas Minchin, Medical Officer of Health. Mr. Tribe, Inspector. The office of Medical Officer of Health has changed hands during the year, and some confusion and consequent delay has occurred in presenting the report of the sanitary work of the year in a complete form.

GUILDFORD.—Population 16,200. Dr. Mitchell, Medical Officer of Health. Mr. F. C. Tribe, Inspector. Under the heading "General sanitary condition of the Borough," Dr. Mitchell says that "progress has been made in many ways to improve what may be called the details of sanitation, apart from large schemes." Some of these improvements naturally follow the large scheme which necessarily preceded them. From Mr. Tribe's very full report, it appears that the total number of houses and premises (including workshops), with connections to the sewers, is now 3639. The total number of dwelling houses in the Borough is only 3230* An exceptional amount of work is recorded in connection with the remedy of other conditions causing nuisances injurious to health to the occupants of houses let at weekly rents. The localities, where these improvements have been effected, are not specified in the report, but I am ready to inspect the district with the Medical Officer of Health, and I should then be able to compare the work with what is being done elsewhere in the County. "Overcrowding," the Medical Officer of Health states, "undoubtedly exists, and several instances have been dealt with during the past year, where evidence can be

* Census report 1901, Table 9.

obtained as to its nature and extent." Part III. of the Housing of the Working Classes Act was adopted in 1901, but so far no action has been taken under this Act.

DORKING.—Population 7757. Dr. Williamson, Medical Officer of Health. Mr. Mathews, Surveyor-Inspector. The districts, Urban and Rural, which are under the supervision of Dr. Williamson, are attended to in a very careful and methodical way. He made house-to-house inspections in the parts of the district where he deemed it necessary, and in that way has acquired a first-hand knowledge of the actual conditions. He made representations under the Housing of the Working Classes Act, with regard to two houses, which were subsequently reconstructed. Another house was closed by the owner on his representation. Four cases of overcrowding were dealt with. In over 100 houses proper provision for flushing the drains and removing the refuse was found wanting, and the nuisances arising in consequence were dealt with on his representation to the District Council.

LEATHERHEAD.—Population 4750. Dr. Williamson, Medical Officer of Health. Mr. Salkield, Inspector. The completion of the works of sewerage has enabled many serious nuisances to be abated; the drains of a number of houses in the Kingston Road, which had been almost uninhabitable on account of the damp unwholesome condition of the yards, owing to the defective drainage and overflow of cesspools, were among the first to be relaid and connected with the sewer. In all cases drains are tested before a connection with the sewer is made, and any defects that are discovered are made good.

EPSOM.—Population 10,470. Dr. Williamson, Medical Officer of Health. Mr. Capon, Surveyor and Inspector. The systematic inspections, and the representations made thereon by the Medical Officer of Health, have demonstrated the need of a separate Inspector.

CARSHALTON.—Population 6940. Dr. Williamson, Medical Officer of Health. Mr. Gale, Surveyor and Inspector. House-to-house inspections were made in Mill Place, Race-horse Yard, St. James's Road, and William Street, special attention being given to the paving of yards and provision for refuse removal. Representation was made

that four houses in William Street, and four houses in "the Square," were unfit for habitation. They were about to be dealt with when the year closed.

SUTTON. — Population 16,128. Dr. Bower, Medical Officer of Health. Mr. Kain, Inspector. A very important step has been taken in this district. Bye-laws have been adopted for "houses let in lodgings, or occupied by members of more than one family." The work of inspection will thereby be greatly facilitated. One house was certified as "unfit for habitation," and was improved by structural alterations.

REIGATE. — Population 26,000. Dr. Jacob, Medical Officer of Health. Mr. Humphery, Inspector. A very full report has been sent to me of the work in the Sanitary department, which relates partly to the condition of the houses let at weekly rents. A good number of structural improvements, which should be very beneficial, are recorded. I am ready to make an inspection of this important district with my colleague, Dr. Jacob, in order to compare the work with that done elsewhere. The number of "premises closed as unfit for human habitation" is given in the Inspector's return as 7. No cases of overcrowding are reported, which for so populous an area as Redhill and Reigate, is remarkable. Dr. Jacob states in his report that the Borough Council applied to the Local Government Board for sanction to borrow £4000 for the erection of cottages for their employes on a site forming part of the sewage farm at Earlswood, but on receipt of notice from the Board that such cottages must only be occupied by those engaged on the sewage farm, they withdrew their application.

CATERHAM.—Population (apart from Asylum and Barracks) 7860. Dr. Davey, Medical Officer of Health. Mr. Martin, Surveyor and Inspector. Five cases of overcrowding have been dealt with. The Medical Officer reports that a large number of small houses have lately been built. This district is still confronted with the sewage disposal difficulty, with regard to which no progress has been made since it was constituted an Urban District, with separate local government. It is stated in the report that during the past year 3,385,600 gallons of sewage were removed from the vicinity of houses at a cost of £1,600. The Council also undertakes the cleansing of 50 earth closets twice weekly.

† 3. RURAL DISTRICTS IN THE COUNTY.

CHERTSEY.—Area in acres 24,649. Population 12,493. Dr. Hanslow Brind, Medical Officer of Health. Mr. Durrant, Surveyor and Inspector. The Medical Officer of Health is making close inquiry throughout his district into the condition of the cottages and houses let at weekly rents. The district is 24,649 acres in extent, and the houses are scattered. It is a rather wide area for a Surveyor Inspector to cover. The Medical Officer gives a detailed account of what has been done to improve local water supplies in the districts; but the account of nuisances, other than those dealt with by scavenging, is short. Two cases of overcrowding are reported, and one house was closed under the Act.

EGHAM.—Area in acres 7786. Population 12,139. Dr. Woodforde, Medical Officer of Health. Mr. Freeman, Surveyor-Inspector. The Medical Officer, who is a gentleman of very great knowledge and experience, has written carefully and at length on the subject of "Housing." He does not consider there is overcrowding in his district. Egham is favourably situated in some respects. That is to say it has a river company's water supply, which is supplied to most cottages and tenements, and the soil is so porous that the dirty water or liquid sewage of the houses passes away without obvious nuisance, or evident pollution of domestic water supplies. Dr. Woodforde attaches great importance to the operation of the Building Bye-laws, which he says have been carefully observed since 1881, and which he considers have been the means of keeping the district in a sufficiently good sanitary condition, without any large public expenditure. The great majority of the nuisances dealt with (175 in number) related to foul closets and drains.

FARNHAM.—Area in acres 28,251. Population 17,150. Dr. Tanner, Medical Officer of Health. Mr. Patrick, Surveyor and Inspector. This report was received late, and does not contain much detail as to the work done in dealing with nuisances. The Medical Officer mentions that only four barracks were occupied by Hop-pickers in 1902. In one instance the sanitary arrangements were "deplorable," but it is not specifically stated what was done by the immediately responsible Authority and its officials to render them less so. "During the year 12 houses were condemned as unfit for habitation.

† The Estimates of the Areas in Acres have been kindly furnished to me for the purpose of this Report by F. G. Howell, Esq., the County Surveyor.

Of this number 8 have been put in thorough repair." Dr. Tanner goes on to make remarks on the subject of Phthisis (consumption) and its prevention, which are clearly applicable to his district. He pointedly observes that "improved sanitary conditions in the home and mode of life are the real weapons wherewith to fight the disease." The death-rate from this disease is increasing in Farnham Rural, and it is impossible to deny that increased attention to the condition of dwelling houses, so far as ordinary removable nuisances are concerned, is urgently required.

HAMBLEDON.—Area in acres 63,910. Population 22,013. Dr. Hall, Medical Officer of Health. Mr. Simmonds, Inspector. On the subject of house accommodation, especially for the working classes, the Medical Officer of Health remarks: "There is still need for a larger supply of cottages. Since my report of 1901 a large number have been built in the district. Some of these are very deficient in sanitation and water supply. On June 17th I made an inspection of about thirty-two houses, the result of which I laid before the Council as a special report (*vide*)." The report referred to does not, however, appear in the document sent to the County Council. Mr. Simmonds has been a good Inspector. He gives the number of "nuisances abated" in 1902 as 118, as compared with the number 219 in 1882.

GUILDFORD RURAL.—Area in acres 55,851. Population 21,600 (with Woking*—Area in acres 8889; Population 16,000). Dr. Pierce, Medical Officer of Health. Inspectors, Mr. Shrives and Mr. Ablett. These are the best of the reports relating to districts of a rural character. It would be impossible to do justice to them in a short space. It is sufficient to say that systematic house-to-house inspection is taking place throughout the district. In consequence thereof overcrowding is discovered and dealt with, and, when required, lime-washing and cleansing is enforced under the certificate of the Medical Officer of Health. Advantage is also taken of completed sewerage systems to have the drainage of houses reconstructed on sanitary principles where necessary. As regards the Cottage Dwellings generally, the chief requirements are a pure water supply for consumption, drainage of subsoil, paving of yards near the dwelling, and the provision of efficient fixed receptacles for the

* Has Urban powers but is rural in character.

water falling from the roofs. These have all been attended to. The observations of Dr. Pierce as regards the character of local water supplies, and the possibilities of improving them without necessary resort to pipe supplies, were referred to in the County report for 1901, and are worthy of special attention, not only in his own districts, but elsewhere. In Woking Old Village, five cottages were closed under the Act.

DORKING RURAL.—Area in acres 39,517. Population 9780. Dr. Williamson, Medical Officer of Health. Mr. Fuller, Inspector. For a thinly-populated rural district this has been well attended to during the last ten years or more, and this is to the credit not only of the Authority and the present officials, but to those who preceded them. The water supply and disposal of sewage has been provided for without much pressure from outside authorities; for it can hardly be contended that the flow of sewage into ditches in this district affects even remotely the condition of the River Thames, where it is drawn upon for public water supplies. The Medical Officer of Health carries on his systematic inspection of cottages, and exercises the very useful powers of the authority under the Public Health Act, with much discretion. It has not been necessary to call upon owners to close cottages. I can testify from recent personal observation to the efficiency of this work.

EPSOM RURAL.—Area in acres 30,736. Population 19,945. Dr. Williamson, Medical Officer of Health. Surveyor-Inspectors, Mr. Wooldridge and Mr. Pratley. There has been a vast improvement in this district during the last ten years, as any one who remembers the old state of things, and who, at the same time, has the opportunity of seeing the Agenda for the meetings of the Council at the present day, will immediately recognize. Sanitary matters are now fully and openly discussed, greatly to the public advantage. A further step forward was made a year ago by dividing the district into two parts for sanitary purposes. This is an improvement, as the district is becoming populous, and the Surveyor's work increases yearly, but it would probably have been better if the District Council had seen its way to separate the offices of Surveyor and Inspector, and made the appointments quite distinct. House-to-house inspections

were made at Banstead, Bookham, Cheam, and Ewell. At the last-named place Dr. Williamson found that, though the sewerage system was complete, the cottage property was not being connected, and that many nuisances injurious to health persisted in consequence. Upon his representation the District Council caused notices to be served upon the owners, with the result that the majority of the places were connected with the sewers before the end of the year. Cottages at Great Bookham and Cheam Common were dealt with under the Housing of the Working Classes Act.

REIGATE RURAL.—Area in acres 44,436. Population 17,100. Dr. Jacob, Medical Officer of Health.

GODSTONE RURAL.—Area in acres 49,908. Population 18,880. Dr. Oldman, Medical Officer of Health. Mr. Barralet, Surveyor-Inspector. The system of Surveyor-Inspector has been recently abandoned, and a Sanitary Inspector appointed. It should, however, be mentioned, that the Surveyor has rendered quite exceptionally good service in the dual capacity. The able Medical Officer of Health, Dr. Oldman, is a very strong advocate of sewerage systems in the villages of his district; consequently the work of his district, apart from the treatment of infectious illness, which is so well attended to, has consisted largely in structural works. Excellent work has been done in this direction. Many other matters have been attended to, and the report mentions two houses dealt with under the Housing of the Working Classes Act. But, nevertheless, it has become evident to the Authority that more assistance is required in enforcing the details of domestic sanitation.

VI.—DOMESTIC WATER SUPPLY.

Constant Water Supply.—The extension of this system within the area of the Metropolitan Companies proceeds gradually as the necessary arrangements with regard to the fittings are completed. The Medical Officer of Health for Barnes considers this subject very important in parts of his district the sanitary condition of which, he states, suffers from insufficiency of domestic water supplies. The Sanitary Committee caused a letter to be written to the Southwark and Vauxhall Company thereon.

Improvement and Extension of River Supplies.—The works promoted by the West Surrey and the Woking Companies, at the instigation and with the support of the County Council, are being proceeded with and will soon be reported on.

The Dorking Supply.—This has been supplemented by the East Surrey Company, I have been in communication with Dr. Williamson on the subject of analyses. Of the different sources of supply there is only one—that from Tower Hill—in which any need for analytical inquiry has been indicated.

Godalming District Supply.—It is satisfactory to record that, during the year under notice, the sewage disposal area close to one of the sources of this supply has ceased to be used, the Charterhouse authorities, under the pressure of the County Council, having connected their main building with the Borough sewerage system.

Sutton District Supply.—This subject has also received the attention of the County Council for several years. Further improvements in the gathering ground were brought about in 1902. A very important step towards making the supply quite safe and pure has been quite recently secured in connection with the Bill now before Parliament. This will be fully reported on in due course.

Local Government Board Inquiries.—Notices of Loan and other inquiries by the Board have now for some years been sent to County Councils where the amount proposed to be borrowed by the District Authorities is for the purpose of sewerage or sewage purification. Notice is also sent in the case of some hospital inquiries but not in others. There are other matters relating to public health and sanitary administration in which the Council is concerned, but in which the Board does not usually send them notice of the inquiries they are about to hold. The most important are those relating to Water Supply.

VII.--MAIN SEWERAGE, OUT-FALL, DRAINAGE AND SEWAGE DISPOSAL WORKS.

It is now four years since a comprehensive account was given of the main-sewerage, out-fall and drainage works, in relation especially to the purification of the River Thames and the improvement of water supplies in the Administrative County. Much has happened since then. The London Water Board has been created, and the Royal Commission has issued a further report on the treatment and purification of sewage, a subject which directly concerns our main sources of public water supply. The time may soon arrive when a new and complete report will be called for. In the meanwhile the progress made in 1902 may be shortly stated.

Among the established systems there have been, as usual, some which have been extended to meet the growing requirements of the districts. Loans of money have been required for this purpose at Wimbledon, Cheam, Shere, Horley, and Mitcham, and the applications for such were the subjects of Local Government Board inquiries. In others alterations or improvements of out-fall works have had to be considered. The Reigate (Earlswood), Malden, and Tolworth works have required my attention in this respect. The Reigate (Earlswood) inquiry took place in December. I could not unfortunately attend owing to illness, but I was in communication with the Government Engineering Department, at Whitehall, and being acquainted with the works for several years I was able to give requisite information.

One of the most important of the Local Government Board Inquiries respecting a further loan for works of this kind related to those at Cobham in October. With regard to the sewerage of Cobham a formal complaint was received by the County Council, under Section 16 of the Local Government Act, 1894. In reporting thereon the Sanitary Committee observed "that there seems to be cause for considerable dissatisfaction at the manner in which some of the work has been executed."—*Report presented November 11th, 1902, p. 788.*

Bacterial systems for several small town, village, or rural districts came into operation in 1902, and will be reported on in due course. The list includes Leatherhead, Ashstead, Ewell, Cranleigh, Godstone, Oxted, Limpsfield, Holmwood.

At the Deep Cut Barracks, Frimley, further improvements in the sewage disposal works were resolved upon on the representation of the County Council, and these will be reported on in due course.

In October, 1902, I met the Association of Municipal and County Engineers, by invitation, at Aldershot. I was then able to explain the great improvement that has taken place at the North Camp Sewage Farm on the borders of the Blackwater since the place was first reported on to the Surrey County Council.

VIII.—MORTUARIES.

The relief afforded by the establishment of mortuaries have already been referred to in the County Annual Reports.

Some of the worst evils arising from overcrowding in towns are thereby prevented.

In the Annual Report for 1901, pp. 61-63, an account was given of the mortuary accommodation in the County.

The publication of the facts has had a good effect, for it is evident from the District Reports that since then more attention has been given to the subject locally. The Corporation of Guildford, the Capital of Surrey, is taking action. The distinguished Borough of Richmond has also obtained an excellent site, and it may be expected that the provision about to be made for mortuary and inquest purposes will be sufficient for all reasonable requirements. The Surbiton and Molesey Councils have already shown the importance they attach to this subject, and at Epsom attention has been drawn to the necessity of making suitable arrangements for necropsies.

INDEX.

	Page		Page.
Ages of Population	16-17	Chertsey Rural, Sanitation of	
Annual Reports for Districts..	5-6	Dwellings	50
Antitoxin Treatment	26	Vital Statistics	20
Bacterial Systems	57	Cloud	9
Barnes, Census Returns	12-16	Cobham, L.G.B. Inquiry	57
Notifiable Diseases	22-30	Cobham Drainage	57
Sanitation of Dwellings	41	Commercial Clerks	12-15
Vital Statistics	20	Conferences	7
Barometer	8	Consultations	7
Birmingham Conference.....	7	County Birth-rate	20
Birth Rates	20	„ Death-rate	20
Builders	12-13	„ Population	20
Campbell Bayard	3-8-11	„ Public Institutions ..	20
Carriage and Messengers	12-13	County Medical Officer of	
Carshalton, Census Returns..	12-16	Health, Expert Advice	
Notifiable Diseases	22-30	of, as to—	
Sanitation of Dwellings ..	48	Diagnosis	3-4
Vital Statistics	20	Diphtheria	25-26
Case Mortality.....	22	Disinfection	24
Caterham, Census Returns ..	12-16	Hospitals	4
Notifiable Diseases	22-30	Notification, Measles	32-34
Sanitation of Dwellings	49	Phthisis	35
Vital Statistics	20	Sanitary Inspectors	41-53
Census Returns	16-19	Sanitation of Houses.....	38
Charterhouse School Water		Sewage Disposal	56-57
Supply	54	Smallpox	3-4
Charwomen	14-15	Typhoid.....	28
Chertsey, Census Returns	12-16	Water Supplies	54-55
Notifiable Diseases	22-30	Vaccination	3-4
Sanitation of Dwellings ...	45	Cranleigh, Outfall Works ..	57
Vital Statistics.....	20		

INDEX—*continued.*

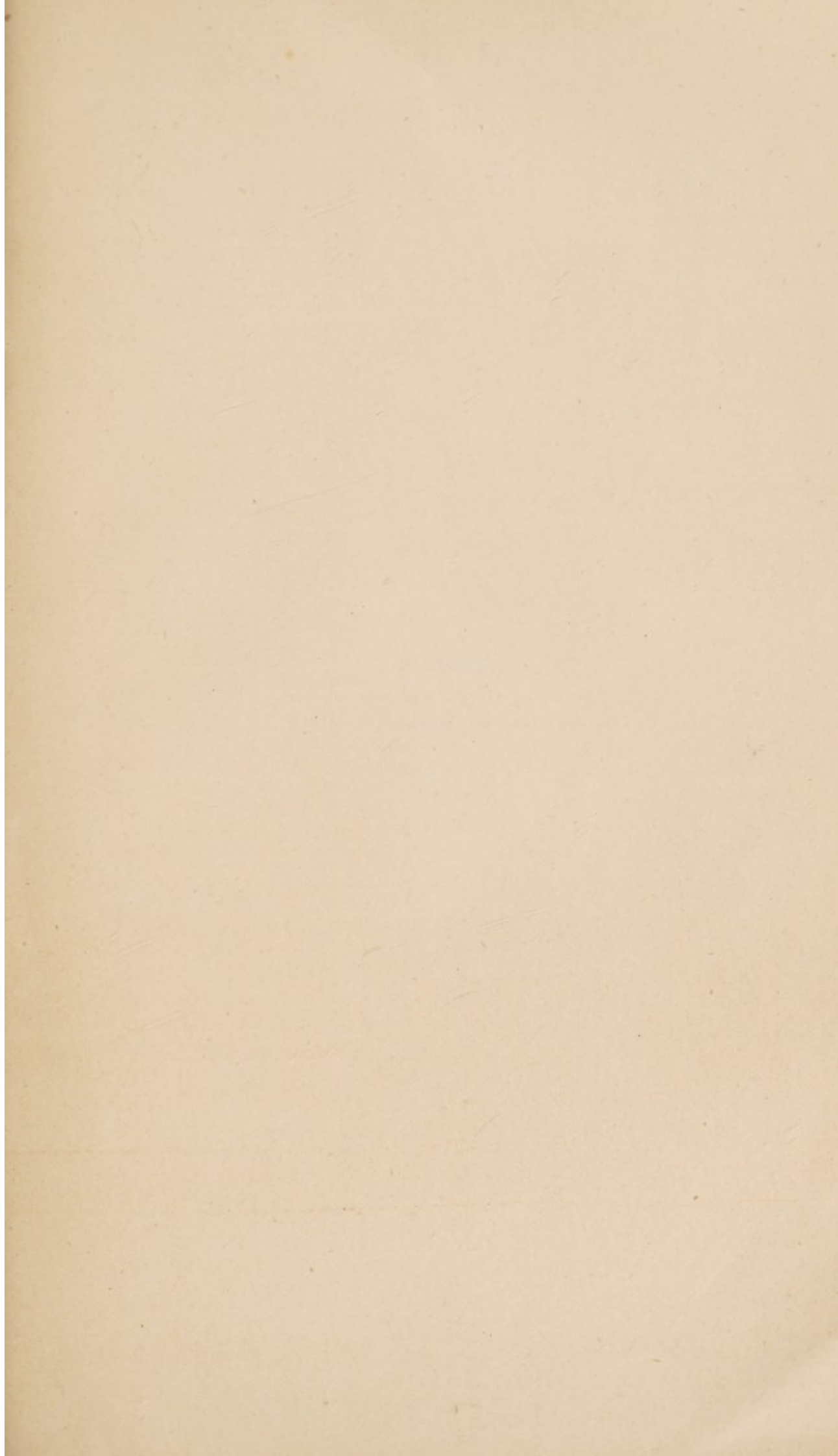
	Page.		Page.
Croydon Rural Sanitary Administration	45	Epsom, Census Returns.....	12-16
Census Returns	12-16	Notifiable Diseases	22-30
Notifiable Diseases	22-30	Sanitation of Dwellings....	48
Sanitation of Dwellings	44	Vital Statistics	20
Vital Statistics	20	Esher, Census Returns	12-16
Death Rates, District	20	Notifiable Diseases	22-30
" General	20	Sanitation of Dwellings....	43
" Infant	21	Vital Statistics.....	20
" Zymotic.....	20	Factory and Workshops Act	7
" Phthisis	21	Farmers and Gardeners	12-13
" Respiratory	20	Farnham, Census Returns	12-16
Deep Cut Barracks	57	Notifiable Diseases	22-30
Diphtheria.....	6	Sanitation of Dwellings....	46
Diphtheria.....	25	Vital Statistics.....	20
Diphtheria, Barnes	26	Farnham Rural, Sanitation of	
" Leigh	25	Dwellings	50
" Malden	26	Vital Statistics.....	20
" Merrow	26	Frimley, Census Returns	12-16
" Redhill	26	Notifiable Diseases	22-30
" Wimbledon	26	Sanitation of Dwellings ..	47
District, New Medical Officers	5	Vital Statistics.....	20
Domestic Servants	14-15	Furnishers.....	12-13
Dorking, Census Returns	12-16	Godalming, Census Returns..	12-16
Notifiable Diseases	22-30	Notifiable Diseases	22-30
Sanitation of Dwellings....	48	Vital Statistics	20
Vital Statistics	20	District Water Supply	54
Dorking Rural, Sanitation of		Godstone, Census Returns ..	12-16
Dwellings	52	Notifiable Diseases	22-30
Vital Statistics	20	Sanitation of Dwellings....	53
Egham, Sanitation of Dwell-		Vital Statistics	20
ings	50	Guildford, Census Returns ..	12-16
Vital Statistics	20	Mortuary	58
Engineers	12-13	Notifiable Diseases	22-30
Epsom Rural, Sanitation of		Sanitation of Dwellings	47
Dwellings	52	Vital Statistics.....	20
Vital Statistics	20		

INDEX—*continued.*

	Page.		Page.
Guildford Rural, Sanitation		Sanitation of Dwellings....	46
of Dwellings	51	Vital Statistics.....	9
School Inspection	26	Manchester Conference	7
Vital Statistics.....	20	Measles	30
Ham, Vital Statistics	20	Meteorology of Surrey, 1902 .	8-11
Hambleton, Sanitation of		Military Camps, Inspection of	57
Dwellings	51	Milliners	14-15
Vital Statistics	20	Molesey, Census Returns	12-16
Infant Mortality	21	Mortuary	58
Innkeepers	12-15	Notifiable Diseases	22-30
Kingston-on-Thames, Census		Sanitation of Dwellings....	44
Returns	12-16	Vital Statistics.....	20
Notifiable Diseases	22-30	Monthly Notification Returns	7
Sanitation of Dwellings....	42	Mortuaries	58
Vital Statistics.....	20	North Camp Sewage Farm ..	57
Laundry Women.....	14-15	Notifiable Diseases	22-30
Leatherhead, Census Returns,	12-16	Occupations of Population ..	12-15
Notifiable Diseases	22-30	Phthisis Prevention	35
Sanitation of Dwellings....	48	„ Notification	36
Vital Statistics.....	20	„ Disinfection	36
Local Government Board In-		„ Houses	37
quiries (Hospitals):		„ Sanatoria	37
Epsom	7	Population of County	16
Reigate	7	Printers	12-13
Local Government Board In-		Rainfall	9
Inquiries (Sewerage):		„ Monthly Returns....	7
Cheam	56	Reigate, Census Returns	12-16
Horley	56	Notifiable Diseases	22-30
Mitcham	56	Sanitation of Dwellings....	49
Reigate	7-56	Vital Statistics.....	20
Shere	56	Reigate Rural, Census Returns,	12-16
London Conference.....	7	Notifiable Diseases	22-30
Malden, Outfall Works	56	Sanitation of Dwellings ..	40
Census Returns	12-16	Vital Statistics.....	20
Notifiable Diseases	22-30		

INDEX—*continued.*

	Page.		Page
Richmond, Census Returns ..	12-16	Vaccination	22
Notifiable Diseases.....	22-30	Vital Statistics.....	16
Mortuary	58	Wallington Meteorological	
Sanitation of Dwellings	42	Observations	11
School Inspection	24	Walton-on-Thames, Census	
Vital Statistics	20	Returns	12-16
Sanitary Districts	5	Notifiable Diseases	22-30
„ Staff	5	Sanitation of Dwellings.. ..	46
Sanitation of Dwellings.....	38-53	Vital Statistics	20
Scarlet Fever	23	Water Analyses	37
School Hygiene	6	Water Supply, Expert Advice, &c.	54
School Inspection	24	„ Constant	54
Sewage Disposal	56	„ Dorking	54
Sewerage Extensions	56	„ Godalming	54
Smallpox	3-4	„ Sutton	55
Sunshine	10	„ West Surrey ..	54
Surbiton, Census Returns....	12-16	„ Woking	54
Mortuary	58	Water Gas.....	6
Notifiable Diseases.....	22-30	Weybridge “Immortals”....	19
Sanitation of Dwellings....	43	Wimbledon, Day Nursery....	22
Vital Statistics.....	20	Census Returns	12-16
Surveyor-Inspectors	39	Notifiable Diseases	22-30
Sutton, Census Returns.....	12-16	L.G.B. Inquiries	56
Notifiable Diseases	22-30	Outfall Works	56
Sanitation of Dwellings....	49	Sanitation of Dwellings....	42
Vital Statistics	20	Vital Statistics.....	20
Tailors	12-13	Wind	9
Tanners	12-13	Woking, Census Returns	12-16
Teachers	14-15	Notifiable Diseases	22-30
Temperature.....	8	Sanitation of Dwellings ..	51
Tolworth Sewage Works	56	Vital Statistics	20
Typhoid	27		



LONDON :

PRINTED BY HENRY KEMSHEAD Limited,
156, Westminster Bridge Road, S.E.

