Godstone

Annual Report of the Medical Officer of Health, 1893.

TO THE CHAIRMAN AND MEMBERS OF THE GODSTONE RURAL SANITARY AUTHORITY.

GENTLEMEN,

Introduction.

I have the honour to present you with my report upon the health and Sanitary condition of the District over which you preside and the steps taken to maintain the same during the past year which will be the second since my appointment as your Medical Officer of Health.

In thus alluding to the report of the previous year it is only right that your attention should be drawn to the criticism which it received at the hands of the Medical Officer of Health of the County in the report which he submitted to the Sanitary Committee of the County Council in April of last year and more particularly as copies of it do not appear to have been sent to each member of your Authority whereby he could become acquainted therewith. Although in his review of the Reports received from the many Medical Officers of Health of the County he

specially alludes to that as being amongst those which "show a considerable amount of care in their preparation and are worthy of praise" such commendation becomes somewhat negative when taken in connection with his later criticisms upon the reports generally and when comparing them with that presented by a Medical Officer of Health who devotes his whole time to the duties of his office, and is not engaged in practice also. And it is very evident that it is upon this basis that his criticisms are founded, which taken as a whole are adverse to the view that men engaged in practice are in position to pay attention to Sanitary matters at all with any advantage to the community. Such opinions however I believe are not universally held by men occupying high positions in the Sanitary Service of the country. Curiously, however, a further development of these opinions found expression in some articles which appeared in the Local Press during the month of August last, which would seem to be more than a mere coincidence, but concerning which your views were very decidedly expressed in the words of the Resolution passed at your meeting on August 25th, for which I desire to express my gratitude; without which one's work in the Sanitary administration of the district would have been somewhat disheartening from the lack of encouragement which such remarks as those to which I have alluded afford when emanating from one of so presumed an Authority as the Medical Officer of Health to the County Council.

he Weather.

With this digression I pass on to review some of the conditions and influences which have been present during the past year and calculated to affect the health of the community injuriously. Foremost amongst these has been the weather which has been of such a character throughout, as to merit more than a mere passing allusion, and which has probably been influential in some degree in the development of more than one class of illness.

nfall.

By the kindness of Mr. Moffat, of the Priory Gardens, Nutfield, I am enabled to give you a detailed account of the Rainfall occurring at that Station during the past year, and the average for ten years, together with a record of the temperatures, by which you will be able to judge of its variability.

REGISTER OF RAINFALL IN 1893.

Kept at NUTFIELD PRIORY, in the County of Surrey, by J. MOFFAT.

Time of Observation, 9 a.m.

RAIN GAUGE—

Diameter ... ... 8 inches

Height of top above Ground ... ... 1ft. 2in.

" " " Sea Level ... ... 468 feet

Date	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
1	·01s	·17	·53	...	...	...	...	·07	...	·04	·32	·19
2	...	·17	·01	...	...	...	...	...	...	·18	·10	·03s
3	·14s	...	·07	...	...	·02	...	·03	...	...	...	...
4	...	...	...	...	...	...	·34	·49	...	·01	·04	·01
5	·01s	...	...	...	...	...	...	...	...	·21	·01	...
6	·08s	·05	...	...	...	...	...	...	·05	·07	...	·08
7	...	·09	...	...	...	...	...	...	...	·15	...	·25
8	·21	...	...	...	...	...	·11	...	·07	...	·03	...
9	·34	·18	...	...	...	...	·06	...	...	·71	...	·01
10	...	·03	...	...	...	..	...	...	...	·10	...	·14
11	·12	·13	...	...	...	...	·33	...	...	1·16	...	...
12	·02s	·03	...	...	...	...	·32	·02	...	...	...	·37
13	...	·10	·08	...	...	...	...	...	...	·04	·01	·39
14	·01s	·11	·02	...	...	...	·01	...	...	·07	·68	...
15	...	·04	·04	...	...	...	·19	...	...	...	·02	...
16	·42s	·11	·06	·05	·05	...	·10	...	·25	·15	·20	...
17	·24s	·05	...	...	·36	...	·01	...	...	·60	·21	...
18	·06	·26	...	...	·07	...	·05	...	·01	...	·19s	...
19	...	·01	...	...	·06	...	·27	...	·02	...	·10s	·33
20	...	·50	·01	·01	·01	...	·10	·04	·21	...	...	·19
21	...	·55	...	...	...	·40	·01	·03	...	·07	...	...
22	·07	·25	...	...	...	·03	...	·07	...	·15	·04	·20
23	...	...	...	...	...	·03	...	·09	·06	...	...	·03
24	...	...	...	...	...	·02	·29	...	...	...	...	·08
25	·01	·20	...	...	...	·07	·15	...	...	·08	·33	·01
26	·18	·20	...	...	...	·34	·11	...	·24	...	·22	...
27	...	·24	...	...	...	...	...	...	·01	...	...	...
28	·10	·05	...	...	...	...	...	...	·36	·02	...	...
29	·03	...	...	...	·20	...	·17	...	·15	...	·09	...
30	·14	...	...	...	...	...	...	·02	·05	...	...	...
31	·14	...	...	..	...	...	·03	·15	...	...	...	·03
Totals	2·33	3·52	·82	·06	·75	·91	2.65	1·01	1·48	3·81	2·59	2·34
Totals from Jan. 1		5·86	6·67	6·73	7·48	8·39	11·04	12·05	13·53	17·34	19·93	22·27

Although the station is not absolutely in your district, still, being within so short a distance and of fair elevation, 468 feet above sea level, it will serve as an indication of that which has predominated over the adjourning area of some miles

TOTAL RAINFALL FOR TEN YEARS.

Year.	Total Depth.	Wet Days.
1884	21·41	147
1885	27·09	165
1886	31·27	190
1887	21·82	137
1888	28·97	171
1889	25·91	171
1890	26·13	176
1891	33·10	175
1892	27·49	162
1893	22·27	153

Total 265·46 yielding an average of 26·54 inches per annum.

A wet day means one upon which ·01 inch or more of rain has fallen.

The following table shews the fall for last year and the temperatures also.

1893.

Month.	Total Depth.	Greatest fall in 24 hours		No. of days upon which 0·1 or more fell.	Average Temperatures	
		Depth	Date.		Max.	Min.
January ...	2·33	·42	16th	19	38°	34° 1/21
February ...	3·52	·55	21st	22	45° 6/7	34°½
March ...	·82	·53	1st	8	56°	37° 18/21
April ...	·06	·05	15th	2	61° 1/3	40° 9/10
May ...	·75	·36	17th	6	67° 1/15	47° 2/3
June ...	·91	·40	22nd	7	71° 4/15	51° 1/3
July ...	2·65	·34	4th	18	70° 27/31	54° 24/31
August ...	1·01	·49	4th	10	74° 16/31	55°
September ...	1·48	·36	28th	12	66° 4/15	51° 4/5
October ...	3·81	1·16	11th	17	59°	43°½
November ...	2·59	·68	14th	16	44° 3/10	36° 1/5
December ...	2·34	·39	13th	16	43°½	33°¾
Total ...	22·27			153		

By this record it will be seen that the total depth has fallen short of the average by 4·27 inches, and that during April, May and June, when the fall was at the lowest, the temperatures were very high. Apart from the discomfort and possible risk of sunstroke attending a long period of dry heat, a further danger to health arises in the scarcity of water, either for drinking purposes, in those cases where houses are dependent upon that source of supply, or for washing and cleansing purposes in others. Ponds have been resorted to in the former instances, if more handy than having to fetch a better supply from a distance, and such was stated to have occurred at Titsey. Sore throats, too, which were very prevalent during the hot weather throughout the District, may fairly be attributed to it, as well as Infantile Diarrhœa, to which cause a few deaths were registered in Caterham, Tatsfield and Oxted. The inhalation of air charged with dust and particles of grit, which have been blown about by the wind during exceptionally dry weather, injures the mucous membrane of the throat, and renders it susceptible to the lodgment of disease germs and their further development, producing a tonsillitis which may or may not be of a specific character, or result in Diphtheria. Thus the absence of the moistening and flushing effect of rain showers becomes a factor of much importance in the production of disease. This influence of weather, however, is one over which we have no control, and is out of the range of practical sanitation as regards its effects, except in the matter of water supply.

Water Supply

The two Companies which supply the district have further extended their mains during the past year, and connections have been made with numerous houses which will be more particularly alluded to again; but I regret to say that there are many cottages with no other supply than that of a rain-water tank. Other conditions and influences, calculated to affect injuriously the health of the people, will be noticed when reviewing the causes, origin and distribution of the various diseases which have been prevalent during the past year, as disclosed by the following statistical record :—

atistics.
ea and Population

The total area of your district consists of 43,944 acres, with a population, estimated to the end of 1892, of 19,159 persons, distributed amongst 14 Parishes or "Localities," as the following table, including the number of Births and Deaths in each, indicates:

Localities.	Population (corrected.)	Acres.	Persons per acre.	Births.		Total Deaths.	Rate per 1000.
				M	F.		
Blechingley ...	1917	5620	0·34	28	24	29	15·12
Caterham ...	*7376	2438	3·02	75	65	53	11·42
Chelsham ...	445	3356	0·13	3	3	3	6·74
Crowhurst ...	247	2119	0·11	3	1	4	16·19
Farleigh ...	112	1051	0·10		3	1	8·92
Godstone ..	2512	6830	0·36	32	28	33	13·13
Horne ...	724	4593	0·15	7	13	10	13·80
Limpsfield ..	1484	4673	0·31	16	18	14	9·43
Oxted ...	1511	3659	0·41	23	24	27	17·86
Tandridge ...	592	3928	0·15	4	8	6	11·82
Tatsfield ...	380	1303	0·29	7	4	5	13·15
Titsey ...	229	1988	0·11	1	1	2	8·73
Warlingham ...	1527	1703	0·89	24	15	14	9·16
Woldingham ...	103	603	0·15	1		2	19·41
Total ...	19159	43994	0·43	431		203	12·30

* Includes Asylum 2,118. Barracks 629.

Deducting from the population that of the Metropolitan Asylum and the Barracks, there remains a total of 16,412, shewing a death rate of 12·36 per 1000 of population, and a birth rate of 26·26 per 1000 living, which are fairly satisfactory.

The following are the usual tables of mortality and sickness :—

Columns for Population and Births are in table B.	Mortality from all causes, at subjoined ages.								Mortality from subjoined causes, distinguishing deaths of children under 5 years of age.																		
	At all ages	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upward		Smallpox	Scarlatina	Diphtheria	Membranous Croup	Fevers. Typhus	Fevers. Enteric or typhoid	Fevers. Continued	Fevers. Relapsing	Fevers. Puerperal	Cholera	Erysipelas	Measles	Whooping Cough	Diarrhœa & dysentery	Rheumatic Fever	Influenza	Phthisis	Bronchitis, Pneumonia and Pleurisy	Heart Disease	Injuries	All other Diseases	Total
2	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)																						
Metropolitan Asylum ...	138				6	80	51	Under 5																						
								5 upward																15	13	31		79	138
Barracks ...	1				1			Under 5																						
								5 upward						1															1
Blechingley ...	29	3	4	2	2	7	11	Under 5												1	3				1	1		1	7
								5 upward						1					1					3	4	1	1	11	22
Caterham ...	53	14	2	1	5	12	19	Under 5			1									2		1			2	2		8	16
								5 upward		1														4	4	4	9	15	37
Chelsham ...	3		1		1		1	Under 5																				1	1
								5 upward															1					1	2
Crowhurst ...	4	1		1		2		Under 5											1										1
								5 upward											1								1	1	3
Farleigh ...	1					1		Under 5																					
								5 upward																				1	1
Godstone ...	33	4	3	1		11	14	Under 5												1	2				1	1		2	7
								5 upward															1	2	2	2	4	15	26
Horne ...	10	1	1			4	4	Under 5																		1		1	2
								5 upward														1		1	1			5	8
Limpsfield ...	14	5				4	5	Under 5																		2		3	5
								5 upward																1		1	2	1	4	9
Oxted ...	27	4	2	8	1	7	5	Under 5			3															1		2	6
								5 upward			8											1			1		2	1	8	21
Tandridge ...	6	2		1		1	2	Under 5																				2	2
								5 upward																		1		3	4
Tatsfield ...	5	1				1	3	Under 5														1							1
								5 upward																1			1	2	4
Titsey ...	2		1		1			Under 5			1																		1
								5 upward			1																		1
Warlingham ...	14	3	1	2	2	1	5	Under 5			1															2		1	4
								5 upward			1														2			7	10
Woldingham ...	2					2		Under 5																					
								5 upward																		1	1		2
Total	342	[illegible]	15	16	19	134	120	Under 5			6								1	4	5	2			4	10		21	53

coming to the knowledge of the Medical Officer of Health, during the year 1893, in the Sanitary District of Godstone; classified according to Diseases, Ages and Localities

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities. (a)	Population at all ages: Census 1891 (b)	Population at all ages: Estimated to middle of 1893 (c)	Registered births (d)	Aged under 5 or over (e)	New cases of sickness in each locality, coming to the knowledge of the medical officor of health. Smallpox	Scarlatina	Diphtheria	Membranous Croup	Fevers. Typhus	Enteric or typhoid	Continued	Relapsing	Puerperal	Cholera	Erysipelas
Blechingley ...	1,882	1,917	52	Under 5		1									
				5 upward	1	3	1			1					1
Caterham ...	4,551	4,629	140	Under 5		10	1								
				5 upward		33	2			1					
Chelsham ...	440	445	6	Under 5											
				5 upward		5									
Godstone ...	2,478	2,512	60	Under 5		2									
				5 upward		11				1					
Limpsfield ...	1,469	1,484	34	Under 5											
				5 upward		1	1								
Oxted ...	1,499	1,511	47	Under 5			8								
				5 upward		4	48								
Tatsfield ...	380	380	11	Under 5											
				5 upward		2									
Titsey ...	225	229	2	Under 5			1								
				5 upward			7								
Warlingham ...	1,488	1,527	39	Under 5		1	1								
				5 upward		6	4								
Woldingham ...	101	103	1	Under 5											
				5 upward			1								
Crowhurst ...	246	247	4	Under 5											1
				5 upward											1
Total				Under 5		11	11								1

NOTES OF TABLE B.

NOTE 1. The present Table B, is concerned with population, births, and sickness, (not with mortality,) in the Sanitary district or division to which the table relates

2. As stated in the heading of Column (a), Public Institutions are regarded as separate localities, and the new cases of sickness in them are separately recorded. Workhouses, Hospitals, Infirmaries, Asylums, and other establishments into which numbers of people and especially of sick people, are received, are Public Institutions for the purpose of these statistics.

3. Comments on any unequal incidence of notifiable disease upon the several localities, and considerations as to the local incidence of consumption and other prevalent diseases, are made in the text of the Report

C The following Table shews a more detailed analysis of the deaths and their causes, as tabulated for the past two years:—

1892.

Localities	Persons per acre	Birth Rate	Death Rate	Deaths of Infants under 1 year to 1000 Births	Death Rate to 1000 living 1—15	15—65	65 and upwards	Death Rate to 1000 living at all ages. Principal Zymotic Diseases	Small-pox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Fever	Diarrhœa	Phthisis	Respiratory
Blechingley ...	0·33	28·6	10	111	·5	1·5	4·7									1	3.7
Caterham ...	2.95	30·5	11·2	115	·6	3·2	5·9	1.					·4	·2	·4	1·5	2·4
Chelsham ...	0·13	34	22·7	200	2·2	6·8	6·8	4·4					2·2		2·2	2·2	6·8
Crowhurst ...	0·11	20·3	16·2			16·2										4	
Farleigh ...	0·10	18·1															
Godstone ...	0·34	25·4	11·7	79	·4	3·6	5·6	.4					·4			1·2	.8
Horne ...	0·15	35·3	12·7	80		1·4	8·4									1·4	2·8
Limpsfield ...	0·31	23·8	13·6	228	1·3	3·4	3·4	1·9					1·3	·6		2	4
Oxted ...	0·41	20·7	12	200		3·3	4·6	2·		·6			·6		·6	2	2
Tandridge ...	0·14	23·7	18·6	142	1·6	6·7	6·7	1·6		1·6						3·3	3·3
Tatsfield ...	0·29	18·4	18·4		2·6	2·6	13·1									2·6	7·8
Titsey ...	0·11	31·1	13·3			4·4	8·8										8·8
Warlingham	0·87	37·6	11·4	89	2·6	2·6	2·6	2·								1·3	3·3
Woldingham	0·16	29·7	9·9	333													9·9
Total for District	0·39	26·5	13·2	119	2·6	6·7	5·3	0·87		0.12			0·52		0·23	1·69	3.15

1893.

Localities	Persons per acre	Birth Rate	Death Rate	Deaths of Infants under 1 year to 1000 Births	Death Rate to 1000 living 1—15	15—65	65 and upwards	Death Rate to 1000 living at all ages. Principal Zymotic Diseases	Small-pox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Fever	Diarrhœa	Phthisis	Respiratory	Influenza
Blechingley ...	0·34	27·12	16·16	57	3·1	4·6	5·7	3·1		·5			1·5			2·5	1·04	1·5
Caterham ...	3·02	30·24	11·42	100	·6	3·6	4·1	1·08		·4	·2	·2			·2	1·2	1·2	·8
Chelsham ...	0·13	13·48	6·74		2·2	2·2	2·2											
Crowhurst ...	0·11	16·15	16·19	250	4	8		8										
Farleigh ...	0·10	26·78	8·92			8·9												
Godstone ...	0·36	23·8	13·13	66	1·5	4·3	5·5	1·1		·3			·6			·9	·9	·6
Horne ...	0 15	27·62	13·80	50	1·3	5·5	5·5								1·3			
Limpsfield ...	0·31	22·91	9·43	147		2·6	3·2										1.8	·6
Oxted ...	0·41	31·10	17·86	85	6·6		3·3	7·8				7·2			·6		·6	·6
Tandridge ...	0·15	20·27	11·82	166	1·6	1·6	3·3										1·6	
Tatsfield ...	0·29	28·94	13·15	90		2·6	7·8	2·6							2·6			2·6
Titsey ...	0·11	8·73	8·73		4·3	4·3		8·7				8·7						
Warlingham	0·89	25·54	9·16	76	1·9	1·9	3·2	1·3				1·3				1·3	1·3	
Woldingham	0·15	9·70	19·41			19·4												
Total for District	0·37	26·26	12·36	88	1·8	4·3	4·2	2·07		·2	0·06	0·9	0·3		0·2	1·03	1·2	0·7

D. Shewing Statistics for past three years with Average.

Years	Persons per acre	Birth Rate	Death Rate	Deaths of Infants under 1 year to 1000 Births	Death Rate to 1000 living			Death Rate to 1000 living at all ages.									
					1—15	15—65	65 and upwards	Principal Zymotic Diseases	Small-pox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Fever	Diarrhœa	Phthisis	Respiratory
1891	0·36	26·8	14·6	83	4·7	6·8	7·2	0·89		0·19		0·13	0·51		0·06	1.08	2·92
1892	0·39	26·5	13·2	119	2·6	6·7	5·3	0·87		0·12			0·52		0·23	1·69	3·15
1892	0·37	26·26	12·36	88	1·8	4·2	4·3	2·07		0·2	0·06	0.9	0·3		0·2	1·03	1·2
Average	0·37	26·52	13·38	96	3·03	5·9	5·5	1·27		0·17	0·02	0·34	0·44		0·16	1·26	2·42

The next table shows the same statistics for the three years 1891, 1892, 1893, by which comparison may be readily noticed, and any material difference seen at a glance. The past year thus compares very favourably with its two predecessors in all respects, with the exception to be specially mentioned of deaths from Zymotic Diseases; and although this is rightly taken as one test of the progress made and improvements effected in sanitation, yet, inasmuch as a third of these deaths occured in one Locality and from one disease, viz., Diphtheria, it shews rather that special circumstances were at work to account for it, and therefore scarcely a correct criterion of the healthfulness of the whole district; more especially as after deducting the deaths due to the Diphtheria outbreak at Oxted, the Zymotic rate for the remainder of the District is 0·3 which is satisfactory enough. In all other respects, the death rates for the past year have been below those for either of the two preceding years, which forms a very fair reply to those critics who expressed views in the Press and elsewhere upon "the neglience and supineness of the Godstone Rural Sanitary Authority."

The rates of mortality at the various ages in the preceding tables of Deaths, compares very favourably with the usual average, and taken in detail, shows an infant mortality of 88 per 1000 births, at one end of the scale, and 33·8 per cent. of the whole, as of those of 65 years of age and upwards at the other. The Zymotic rate, or that per 1000 living of those due to the principal Zymotic diseases at all ages, is 2·07, which is somewhat high, but will be accounted for by the outbreak of diphtheria at Oxted, to which further allusion will be made later.

motic Diseases.

luenza.

Influenza proved fatal in thirteen instances and doubtless has had some influence in the production of many deaths due to Respiratory affections generally, by which it is so frequently accompanied. With regard to the deaths assigned to Phthisis, and the fact that impermeability of soil has so much influence upon its incidence, wherby it is more common upon clay soils and almost absent upon sandstone, it is somewhat surprising that the rates should be higher for Caterham and Blechingley, than any other locality whose soil is so pervious; but it may be

explained by the fact that inherited predisposition has so much greater influence upon its development, than nature of soil, which being particularly marked in two of the cases which occurred at Blechingley will account for the latter, and probably, the greater density of population per acre in Caterham, in outweighing the advantage of superiority of soil, the former.

Influenza was very prevalent during the first and last two months of the year, which months, it will be seen on reference to the Table showing the Rainfall were those during which the greatest depth was recorded with the exception of October.

So far this disease has not been associated with any particular condition of weather or temperature, but last year those months during which it was chiefly prevalent were distinguished as having a large rainfall and low temperatures, from which it might be concluded that such conditions were favourable to its existence and certainly would be to the development of its pulmonary complications, which in so many instances are the immediate cause of death. Thirteen deaths in all have been registered as due to its influence directly or indirectly, distributed amongst seven of the localities of which Blechingley appears to have the largest incidence, involving the closure of the school for three weeks during February.

Workhouse. The inmates of the Workhouse, which is also situated at Blechingley, suffered very severely during November and December, five cases proving fatal.

The first known case was admitted from the Casual Ward into the Isolation Hospital on November 14th, after which another case appeared amongst the inmates on November 27th, who were sleeping in a Ward which was much overcrowded in consequence of the House being unusually full, followed by four others on November 28th.

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

explained by the fact that inherited predisposition has so much greater influence upon its development, than nature of soil, which being particularly marked in two of the cases which occurred at Blackdingey will account for the latter, and probably, the greater density of population per acre in Chatham, in outweighing the advantage of superiority of soil, the former.

Influenza was very prevalent during the first and last two months of the year, which months, it will be seen on reference to the Table showing the Rainfall were those during which the greatest depth was recorded with the exception of October.

So far this disease has not been associated with any particular condition of weather in temperature, but last year those months during which it was chiefly prevalent were distinguished as having a large rainfall and low temperature, from which it might be concluded that such conditions were favourable to its existence and certainly would be in the development of its pulmonary complications, which is so many instances are the immediate cause of death. Phthisis Pulmonalis in all have been registered as due to its influence directly or indirectly, distributed amongst seven of the localities of which Blackdingey appears to have the largest incidence, involving the closure of the school for three weeks during February.

The immates of the Workhouse, which is also situated at Blackdingey, suffered very severely during November and December, five cases proving fatal.

The first known case was admitted from the Cases' Ward into the Isolation Hospital on November 14th, after which another case appeared amongst the inmates on November 25th, which was adjoining in a Ward which was nearly overcrowded in consequence of the house being unusually full, followed by four

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

nall-pox. A case of small-pox was admitted into the Casual Ward of the Workhouse on July 6th, and immediately isolated. He had been living at Croydon in a common lodging-house, where it was reported that the disease existed. Immediate steps were taken to prevent any extension of the disease by complete isolation of the patient. Vaccination was performed upon all the inmates of the House whom it was considered advisable, about 70 in all; and the House closed against visitors. No spread of the disease occurred, the patient leaving the House quite well on August 24th. The station for Public Vaccination was opened at Blechingley and bills circulated notifying the same, but no one attended to avail themselves of the advantages thus offered to them.

Scarlatina. Cases of scarlatina occurred in several of the localities and one death has been assigned to its influence in Caterham. These will be more particularly noticed under the individual Parishes in which they occurred, but I would here allude to the Isolation Hospital question, as this is one of the Zymotic diseases for which such an Institution is so very essential for the prevention of its extension, together with the next one to be mentioned, viz., Diphtheria.

It is satisfactory to be able to report that this matter of the provision of an Isolation Hospital for the District has so far advanced, as the selection and

provisional contract for the purchase of a site situated in the Parish of Blechingley suitable for the purpose. The site, consisting of a soil of sandy loam, occupies a high elevation with frontage to a good road; the mains of the East Surrey Water Company are within available distance, and it is sufficiently distant from any houses to avoid creating in the minds of reasonable persons any dread of the spread of infection from its presence. It is also fairly accessible to all parts of the District. It is well adapted for the purpose for which it is intended and it is to be hoped that a suitable building will be speedily erected upon it and become available for the reception of patients, thereby forming a fitting corollary to the adoption of the Notification of Infectious Diseases Act 1889, which comes into force on February 1st next.

theria.

Diphtheria has been registered as the cause of death in 16 instances almost entirely amongst children under 15. Although occurring in other parishes as isolated cases, it was in Oxted that it assumed epidemic proportions and proved most serious, giving rise to fifty-six known cases with a mortality of eleven. The Notification Act not having been in force, an accurate estimate of their number is not available whereby a rate could be fixed, but a special report made at the time and reproduced later, will indicate its severity, together with the steps taken to arrest its spread.

Cases also occurred in Warlingham, Caterham, Titsey, and Bletchingley.

Much obscurity exists as to the conditions and influences which favour the development of this formidable disease, so that careful examination of all that is associated with its appearance and spread, with a view to further information, is very desirable. Hitherto, a difficulty has arisen in not being informed of cases as soon as they arise, whereby one could ascertain more accurately and estimate more correctly, the earliest conditions surrounding them, such as the state of subsoil, whether unusually dry or suddenly becoming very wet after a long drought, in the immediate vicinity of their dwellings, which may

quickly vary and soon mislead. It is very probable that air contained in soil which contains a large amount of moisture, and that derived from sources pregnant with organic impurities or polluted in its transit during movement, the result of natural forces, upon entering dwellings thus situated, may be productive of the disease, if not directly, at all events indirectly, by lowering the vitality of the inmates and thereby reducing their power of resistance to attack. Such conditions also have been associated with the keeping of fowls in buildings abutting on the living-rooms of dwellings in which their warmer atmoshpere, on being rarified, has been replaced by a supply drawn from the ground air in the immediate vicinity, including that of the fowl-house, which would be freely charged with emanations from the excreta of the birds. During 1892 I met with two instances in which Diphtheria was prevalent under such conditions and I have this year to record a similar one. Then again, the three months, April, May and early part of June, preceding the outbreak at Oxted, were unusually dry months as shewn by the absence of Rainfall, and attended by high temperatures. These were succeeded by a fall of rain nearly one inch in six days in the latter part of June, and nearly three inches in July, during which period the epidemic was at its highest. Such sudden fall would materially affect the ground air of a district, and displace it probably from a greater depth than usual, laden with any impregnations it may perchance have received. Once developed, other agencies are always at hand for its distribution in the ordinary intercourse and avocations of everyday life, especially those of the public elementary schools, with their compulsory attendance.

The provision usually made in cottages for the storage of food, has also appeared to me to be conducive to its development, where the larder is frequently placed back to back with the water closet, and having a brick floor, it would facilitate the rising of damp and ground air under the influence of the warmer atmosphere of the living-rooms. In some cases the larder has even communicated direct with the living-room, which would still further favour such transfusion of vitiated air. Food, and milk particularly, kept under such circumstances cannot

be otherwise than unwholesome. The remedy for these defects, which are of necessity structural, must be found in an improved method of design by Builders and Architects, whereby such arrangements may be avoided and provision made more in accord with the laws of sanitation. The existing Bye Laws might be amended in this respect with advantage, as well as in some others, such as establishing a minimum size of sleeping-rooms, and not sanction their being of any dimensions at the option of those building, relying upon the law to suppress overcrowding afterwards.

ric Fever.

One death has been registered as due to this disease at Blechingley, but on investigation no local cause of origin could be discovered and the case seemed to admit of some doubt.

les.

Outbreaks of Measles occurred at Caterham, for which the school was closed, causing two deaths; and also at Blechingley and Godstone, resulting in one death in each case.

oping Cough.

This disease has been the cause of three deaths in Blechingley and two in Godstone, from the complications usually attending it, which ought and can generally be avoided if proper care be taken of the patients in the early stages, by those in charge of them, but are not usually dependent upon conditions of defective sanitation.

Passing on to a detailed statement as to each locality, and the sanitary measures adopted therein during the year, I have to report as follows:—

hingley.

BLECHINGLEY. Population 1917. Births 52. Deaths 29, giving rates per 1000 living of 27·12 for the former and 15·12 for the latter.

enza.

The public elementary school was closed for three weeks in consequence of the prevalence of Influenza, during January, and as there were numerous cases of Measles towards the termination of the Midsummer holidays, these were further prolonged for 14 days to allow the epidemic to subside, which proved successful. This had origin in the attendance of a family at a school-treat at Hastings, in company with a large number of other children from an adjoining

town, where measles were prevalent. They afterwards attended school and infected others in their class, involving altogether about fourteen families. The holidays commencing soon afterwards, checked the further spread of infection, by closing the school.

tina. Three cases of scarlatina occurred, which were all contracted outside the Parish, and as they were at once isolated upon falling ill, no spread of the disease took place.

oria. One case of diphtheria occurred and was isolated at once, so that no extension of the disease took place.

f of the Work-lasses Act. The houses known as Padgett's Yard, which had been closed under the Housing of the Working Classes Act, 1890, during the previous year, have been partly demolished and four new ones erected on their site, which is satisfactory so far; but the remainder require to be similarly dealt with before the improvement can be said to have been completed.

s. Two new houses have been erected in the Workhouse Lane, in place of those closed under the same Act, but have not as yet been occupied.

Steps have been taken towards improving the drainage, to which allusion was made in last year's report as being necessary, by invoking the assistance of Messrs. Fairbank, the Sanitary Engineers, who are drawing plans and conducting the initiatory proceedings for the carrying out of a suitable scheme, and the application for a Loan to meet the necessary expense. Difficulties presented themselves in the way of obtaining a suitable site for the outfall which, however, have now been overcome, and the usual public enquiry will probably be held early in the New Year.

Hospital. The site which has been selected for the erection of an Isolation Hospital for the District, is in this Parish, to which allusion has been made previously. The matter is in a forward state and will probably be completed during the coming year.

erham.

CATERHAM.—Population, excluding the Metropolitan Asylum and Barracks, is 4629. Births 140. Deaths 53, giving a rate per 1000 living of 30·24 for the former and 11·42 for the latter, which is satisfactory.

rlatina.

Scarlatina re-appeared in the Congregational School shortly after the boys returned from their Chistmas holidays, but soon subsided. In three instances cases occured in families, of whom some member was engaged at the Schoo in some capacity or other, and probably conveyed the infection home.

A case occured in a family a day or two after arriving in Caterham from London, that of a domestic servant, who probably contracted it before leaving. She was shortly afterwards removed to Stockwell, by Ambulance.

Other cases occured in five other families during the year, all of which appear to have been contracted elsewhere. Disinfection was efficiently carried out in each instance by the Sanitary Inspector at the termination of the illness.

theria.

Three cases of diphtheria were reported, one of which proved fatal, viz. that of a child who had been brought by its mother for change of air, having left a house at Norwood where another child had died of the disease. One case appeared to be due to defective Sanitary arrangements, which have been remedied, and the third was contracted at Reigate and came to his home at Caterham to be nursed.

sles.

The school at Upper Caterham was closed during February, on account of measles being prevalent, but not by order of the Sanitary Authority.

ric Fever.

One case of enteric fever was reported at the Manor Lodge, which was due to defective sink drainage, whereby the sewer gas entered the living-room. Notices to have the sink removed and the defect remedied were served and carried out.

eral Sanitation.

It seems to be not unlikely that the agitation which has been carried on with a view to the formation of the Local Board, may have considerable influence in delaying any progress in general sanitation being made, whereby the health of

the community will suffer. The question requiring most pressing attention is the better provision for the proper scavenging of dust-bins, removal of refuse and emptying of cesspools.

In the absence of any complete scheme of drainage the proper emptying of cesspools, by duly appointed persons, with efficient appliances, is most essential, and with this object it was decided that two sanitary carts should be provided and contracts entered into, for the carrying out of the work. This, however, has not met with the approval of some of the ratepayers, as expressed by their protest, recorded in vestry and submitted to the authority by their representatives, so the matter has been deferred for a time. Delay is always dangerous and specially when applied to the adoption of measures of sanitation, upon which the health of so many people are dependent, and is much to be regretted in this case as being very pressing.

sham.

CHELSHAM.—Population 445, Births 6, Deaths 3, giving rates per 1000 living of 13·48 for the former and 6.74 for the latter.

latina.

Two cases of Scarlatina were reported as having returned home from school at Cudham a few days before falling ill, and another case which had been imported from Sutton to Halliloo Cottage. No extension of the disease took place.

whurst.

CROWHURST.—Population 247, Births 4, Deaths 4, giving rates per 1000 living of 16·15.

sipelas.

Two deaths from Erysipelas were registered, one following an operation. In that case the sanitary surroundings were very unhealthy, with untrapped sink drain communicating with a ditch near the house. A cesspool has been made and the drain connecting it with the sink trapped. The other case would appear to have been contracted away from home. A nuisance having been complained of as existing at Old House, steps were taken to abate the sane, which met with a good deal of opposition at first from the owner, but were ultimately successful and the necessary alterations were effected.

arleigh.

FARLEIGH.—Population 112, Births 3, Deaths 1, giving rates per 1000 living of 26·78 for the former, and 8·92 for the latter. Nothing requiring my intervention has occured during the year in this Parish.

odstone.

GODSTONE. Population 2512. Births 60. Deaths 33, giving rates per 1000 living of 23·85 for the former, and 13·13 the latter, which is slightly higher than that of last year.

nteric Fever.

A case of Enteric Fever occured at South Godstone, due to a defective cesspool. The water supply to the house also was of doubtful quality, so the use of the well has been discontinued and that of the East Surrey Company substituted.

easles.

Measles have been prevalent, causing the schools to be closed, that at the Station for 16 days, and that at Blindley Heath for one month, for which a certificate was given.

arlatina.

Scarlatina occurred at Felbridge and spread to two other houses, probably by means of attendance at school. The Managers at once closed it on their own initiative, which checked its further extension.

A case calling for special mention occurred near the Station, a child falling ill the day after its return from visiting in London. The mother, being anxious to remove it from the house, a portion of which was occupied by another family, and there being no Isolation Hospital for the District, took it up by train to London on the fifth day of illness. This step was sanctioned by the doctor in attendance on the ground of its not being supposed to be infectious in its early stages and before desquamation commences. Such a view is quite erroneous, as the early stages are certainly infectious and the desquamation merely affords greater facilities for its dissemination. The whole proceeding was most improper and in contradiction of the 126 Section of the Public Health Act, 1875, which imposes a penalty upon anyone who, being in charge of a person suffering from an infectious disease, wilfully exposes him in a public conveyance.

Legal proceedings were commenced but ultimately withdrawn, in consequence of a difficulty arising in obtaining evidence thought to be sufficient for the finding of a verdict.

Cases occurred in four other families which were traceable, however, to one source, and that external to the parish.

Diphtheria occurred at Stanstead Cottages, and was considered to be due to offensive and deficient privy accommodation. The old one, which supplied two cottages, has been removed and two new ones erected on the pail system.

Proceedings were taken before the Bench for the abatement of nuisances arising from cesspools in rear of cottages at Cottenham Terrace, Blindley Heath, and conviction obtained. Heavy fines were inflicted and an order made for its immediate abatement and prevention of a recurrence. These were in consequence of a previous order made by the Bench not having been complied with. Nuisances arising from a defective privy and overcrowding at the cottage known as the Pest House were dealt with by the ordering of the removal of the old one, and the erection of a new one in a more suitable place, not in such close proximity to the dwelling. The overcrowding was also discontinued.

The drainage of houses at Tyler's Green, the Old Surrey Hounds Inn, and adjoining cottages have been improved.

The East Surrey Water Company's supply has been extended to houses on Needlesbank, Hookstile Cottages, Yew Tree Farm and Cottages, and four houses in the High Street, in consequence of my analysis of samples taken from the existing supply from wells, shewing them to be unfit for drinking and domestic purposes.

HORNE. Population 724. Births 20. Deaths 10, giving a rate of 27·62 per 1000 living for the former, and 13·80 for the latter.

The School was closed in consequence of an epidemic of Measles from October 23rd to November 20th. The sanitary arrangements at this school are not such as should be provided for an Institution of that kind, the closets consisting of hopper pans in connection with a cesspool, and without means of flushing, which must necessarily be offensive and injurious to the health of the children. Under these circumstances, where there is no constant supply of water available, it would be better to have properly constructed earth closets, which I have advised that the Managers should be ordered to adopt; but I regret to say that there is at present no inclination on their part to carry out these suggestions short of compulsion. The responsibility resting upon the Managers of compelling children, who are unable to protect themselves, to attend a school

having such indifferent and unsuitable accommodation as exists here, is a great one, and, I fear, but little appreciated by them.

npsfield.

LIMPSFIELD.—Population 1484, Births 34, Deaths 14, giving a rate per 1000 living of 22·91 for the former, and 9·43 for the latter.

A case of Diphtheria occurred at the Boys' Convalescent Home, which would appear to have been contracted before his arrival there, and one case of Scarlatina of which the origin is obscure.

The school was inspected by me in company with the Sanitary Inspector, and found satisfactory, the earth closets having the appearance of being carefully attended to. A cesspool, in connection with the sink drainage from the Master's House, was not in a suitable position, but this has since been removed to a more convenient place, at my suggestion, and proper means of ventilating it provided.

ter Supply.

A good deal of unnecessary alarm was created during the Summer by some reflections that were passed upon the situation of the wells at Paine's Hill, from which the Limpsfield and Oxted Water Company derive their supply, and upon the quality of the water distributed to the consumers. At the request of the Company I made a careful inspection of these wells and collected samples of the water, which were forwarded to Dr. Stevenson, the County Analyst for examination. The report of his analysis was to the effect that the water "is a pure, unpolluted well water. It is of an exceptional degree of organic purity, free from sewage contamination, and of very moderate hardness. The water is an excellent one for drinking and general domestic use."

This report was published in the local Press, and thus allayed the anxiety which had been created as to its purity.

Better provision for the drainage of this village is under contemplation, and, together with that for New Oxted and other parts of that village, will form a scheme to be carried out during the coming year under a Loan. Engineers have been instructed to prepare such an one, whose reports will shortly be presented for consideration.

OXTED.—Population 1511, Births 47, Deaths 27, giving a rate per 1000 living of 31·10 for the former, and 17·86 for the latter.

rlatina.

Cases of Scarlatina occurred in three families, all of which were contracted outside the district. The usual means of isolation and disinfection were adopted, and no extension of the disease occurred.

htheria.

The history of the existence of Infectious disease during the year, however, does not stop here, as the villlage was the scene of a very considerable visitation of Diphtheria, in which school attendance proved a leading influence. The first case occurred early in the year, during April, at the Rectory Lodge, and had, apparently, origin in the surroundings of the house. The small dip-well, from which the drinking water was derived, was much exposed to the danger of being contaminated with the dust and dirt from the ground in its vicinity, where numerous fowls were kept and had liberty to roam, being unprovided with a covering of any kind.

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

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

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

The first known case as regards date of illness of the series was that of a boy aged 7, living in a house amidst fairly good surroundings, and attending the Infant School, whom I will call A. He came home from school on June 23rd not feeling well and as he was the subject of a chronic inflamed throat his mother kept him at home, but did not send for a doctor. After being in bed one day and feeling better he was allowed to get up and being at home doing nothing, his mother set him to nurse the baby. On June 30th, which was two or three days after he commenced doing so, the baby fell ill and was pronounced by a doctor to be suffering from Diphtheria, which proved fatal on July 4th, forming A (2) in the series—which suggests the probability that the illness of the brother who nursed him was also diphtheria. No further mischief appears to have accrued from these two cases.

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

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

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

1st. That it was confined to children living widely apart.

2nd. The cases followed one another in quick succession, and at only two or three days' intervals, indicating probable infection by close or personal contact with each other, which in the case of children living at a distance, could probably only be effected by their meeting together for some common purpose such as

3rd. Attending School, and

4th. Being chiefly amongst children under nine years of age, probably therefore in

5th. The Infant School

so that closing the school at once seemed likely to be of use in arresting the progress of the epidemic, a suggestion which I have previously said was readily adopted.

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

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

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

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

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

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

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

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

No further cases occurred until September, on the 18th of which the school was re-opened. On the assembling of the children, I attended and carefully examined their throats, in which my partner, Mr. Furber, kindly assisted me, with a view to the rejection of any child we thought not well or who had any symptons of throat-illness, and although scarcely one in ten had a healthy throat, there were none that we could exclude as likely to develope Diphtheria. During the period in which the school was closed, a complete re-construction of the sanitary arrangements was carried out. The old earth closets were removed and a trough system with automatic flushing tank substituted. The well was abandoned and a new supply of water obtained from the Limpsfield and Oxted Company's mains, which were extended to the school for the purpose. Cases however, occurred subsequently, but they were apparently unconnected with school attendance, and were for the most part amongst members of families living in close proximity to houses where cases had occurred previously, or who had been brought into close contact with children who had previously suffered during the epidemic, but had apparently recovered. And as the power of infecting others persists in the throat of a sufferer from the disease for a variable period, it is possible these may have contracted their illness in that way. The total number of cases were 56, with 11 deaths, being a mortality of 19·6 per cent.

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

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

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

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

eric Fever.

A case of Enteric Fever was reported at Hurst Green in a man who went to work in Lodnon during the week and on premises where there were other cases amongst his fellow workmen.

sing of the Work-g Classes Act.

Proceedings were commenced under the Housing of the Working Classes Act, 1890, relative to the collection of houses near the Bridge in consequence of a communication received from the Local Government Board with regard to them and the pollution of the Brook which arose from the close proximity thereto of their respective privies, but were subsequently withdrawn after some repairs had qeen effected.

ter Supply.

The Limpsfield and Oxted Company's supply of water has been laid on to thirty-five houses in consequence of that from their wells having on analysis proved unfit for drinking and domestic purposes.

Under the above circumstances it is not to be wondered at that the death rate should have increased, having been at the rate of 12 per 1000 in 1892 but 17·86 for 1893, a rise of 5·86. Doubtless the measures in contemplation for improving the drainage of the Village will effect a change in this respect when completed and with a further extension of the Water Company's mains bring about a more heathful state of affairs in the future. Frequent complaints having been made as to the slovenly manner in which the cesspool emptying was carried

by individual occupiers, in that part near the Station called New Oxted a contract has been entered into whereby one person shall be responsible and carry out the work to the satisfaction of the Sanitary Inspector and subject to the rules and regulations as laid down by the Local Government Board. Although it is a very expensive matter it is now better done than under the old régime and the complaints as to any nuisance arising during the operation are less frequent. These houses will be included in the drainage scheme which is in course of preparation so that the existing arrangement is a temporary one only.

dridge. TANDRIDGE.—Population 592, Births 12, Deaths 6, giving a rate per 1000 living of 20·27 for the former and 11·82 for the latter.

Nothing has been reported to me as requiring my intervention during the past year with the exception of one supposed case of Enteric Fever, which was not mentioned until after recovery and removal from the District.

sfield. TATSFIELD.—Population 380, Births 11, Deaths 5, giving a rate per 1000 living of 28·94 for the former and 13·15 for the latter.

Nothing requiring my intervention has occured during the year in this Parish.

ey. TITSEY.—Population 229, Births, Deaths 2, giving equal rates per 1000 living of 8.73.

htheria. Diphtheria occured in this Parish during September at South Green resulting in two deaths.

A young man had been suffering from a bad throat, contracted as he thought during his work, while being engaged iu cleaning out a very offensive yard which had been occupied by pigs. He was kept away from work a week in consequence and was waited upon by his sister, but not seen by a doctor. Three days afterwards the sister fell ill and was pronounced by a doctor to be suffering from Diphtheria, her child at the breast also being infected, followed by two other sisters. The house being small there were no means of effecting complete isolation. The sanitary arrangements were very indifferent, consisting of a Privy built of wood which was defective and in an offensive condition. The proper water supply is that of a well, situate at a short distance away and of good quality, but not being handy they had made use of some from a pond in the garden, which was quite unfit for drinking and domestic purposes.

Although Diphtheria has not yet been traced to impure drinking water, still these are facts in association with this particular case.

The usual disinfectants were supplied and orders given for the repair and emptying of the privy which have been carried out.

A further outbreak occurred in December in this Locality at the keeper's cottage near Titsey Wood. The first case was that of the youngest child aged 2¾ years, who had never been away from home followed at intervals of one or two days by four others. The surroundings of the house are most unhealthy. Abutting on the end of the house and outer wall of the larder and living room are two or three poultry houses of large size and occupied by numerous fowls, which in consequence of their not being in good repair are pervious to the weather. The floors are thickly covered with their excrement and readily become saturated with moisture thus impregnated after rain. The floors of the living room and larder pening out of it are laid with bricks which allow the damp which rises through to collect upon them and the wall—a process which would be much facilitated by the warmer atmosphere of the living room when occupied and heated by a fire. This is a condition of things which I have frequently found associated with an outbreak of Diphtheria and in all probability are sufficient to explain its origin. Food kept in a larder so constructed and particularly milk are calculated to favour the development of such an illness, and the fact that the youngest child of the family who had been always at home and never absent even for the purpose of attending school, and therefore more exposed to these noxious influences was the first to suffer, lends peculiar strength to this view of its origin.

Outside many dogs are kept and accumulations of decomposing filth have been permitted to collect in a ditch bounding the garden, which, together with a very offensive privy and all standing upon a cold damp soil of stiff clay present a condition of affairs very prejudicial to health to say the least, and probably favourable to its propagation and virulence.

Over-crowding in the sleeping rooms was also a factor in the case. Notices have been served to discontinue this at once and the remaining defects will receive attention as soon as the convalescence of the patients will admit of their being remedied and disinfection effectually applied.

Warlingham.

WARLINGHAM.—Population 1527, Births 39, Deaths 14, giving a rate per 1000 living of 25·54 for the former, and 9·16 for the latter.

Scarlatina.

Scarlatina appeared at the Whyeleafe, in a family during September, having been contracted apparently during the visit of one of its members to a neighbouring Town and afterwards conveyed to the remainder, six cases in all. A discharged servant also contracted it and infected another at his own home.

Diphtheria.

Diphtheria occured at Capel Cottages, and proved rapidly fatal in two instances,two other members of the family subsequently falling ill. In consequence of these two cases being those of children attending the Elementary School and as the holidays were due to commence in a week of their falling ill, the Chairman of the Board of Managers very wisely anticipated them by closing the school altogether and in doing so checked any further spread of the disease at once, which would have probably taken place amongst the other children at the School under the influence of the aggregation, thus confining it to the one family.

Portland Cottages and Newland Cottages, Upland Cottages and Rutherford Cottages were inspected by me with a view to their being placed under repairs, which have been effected.

Housing of the Working Classes Act.

Three cottages behind the Chapel belonging to Mrs. Windross were closed under the Housing of the Working Classes Act 1890, but have not been proceeded with further at present, and certificates were granted in case of those called Atkin's Cottages under the same Act as having been repaired and rendered fit for occupation.

Woldingham.

WOLDINGHAM.—Population 103, Births 1, Deaths 2, giving a rate per 1000 living of 9·70 for the former and 19·41 for the latter.

Nothing requiring my intervention occurred during the past year in this Parish.

Water Analysis.

Twenty-eight samples of water have been submitted to me for examination during the year and certificates given in accordance with the results obtained by my analysis of them.

Seeing that your Authority has been more or less placed upon its defence during the past year and charged with negligence and supineness, besides being held up to ridicule in the columns of the Local Press, it is gratifying to be able to

revert again to the Statements contained in Table D., and point to the steady decline in all the rates under the various headings there mentioned during the past three years with the exception previously alluded to, viz. of that due to Zymotic diseases; and also to call attention to the summary of work done by the Sanitary Inspectors as subjoined, in vindication of the activity displayed and the interest shewn in the promotion of the health of the District. The effects of sanitary improvements and precautionary measures however, are to be found in a lowered death rate from all causes, and more particularly perhaps of those in children under five years of age, as well as that from infectious diseases; these results therefore suffice to controvert such statements, and shew that the interests of the District have not been neglected. The arrangements which have been made for the proper scavenging of the houses called New Oxted under the rules sanctioned by the Local Government Board are further evidences of the work that has been done, and which would have heen applied also to Caterham on a larger scale, and in proportion to its requirements, had not the agitation which has been carried on with a view to the formation of a Local Board caused the matter to be suspended, by which it would seem that the health of the community is to be prejudiced during the interval. It is to be hoped that the question will soon be decided and the matter allowed to proceed.

ieral Sanitation. The principal measures to be adopted during the coming year of which the foundation has been laid during the past are the working of the Notification of Diseases 1889, Act, the completion of the Isolation Hospital and the carrying out of the Drainage Schemes for Blechingley, Limpsfield and Oxted, which will form a crowning termination to the labours of 1893.

I have the honour to be, Gentlemen,

Your obedient Servant,

CHARLES E. OLDMAN,

M.D. Cantab.

Medical Officer of Health.

The Grange,

Blechingley,

Christmas, 1893.

Godstone Union Rural S[illegible] [illegible]act of Inspect[illegible]r of Nuisances and Surveyor's Reports for the year ending 31st December, 1893.

1893	Inspections			Notices				Nuisances Abated												Infectious Diseases																			Certificates					
	Under P. H. Acts	Dairies and Cow sheds order	New Buildings	Preliminary	P. H. Act, 1875	P. H. (Water Act)	H. W. C. Act	Dirty Houses	Insanitary Slaughter Houses	Accumulations removed	Defective Drains	Overflowing Cesspools	Foul Ashpits	Insanitary Privies and W.C's.	Overcrowding	Dirty Bakehouses	Caravans removed	Dirty Pig Pounds	Insanitary Cowsheds	Bletchingley	Caterham	Chelsham	Crowhurst	Farleigh	Horne	Godstone	Limpsfield	Oxted	Tandridge	Tatsfield	Titsey	Warlingham	Woldingham	Houses disinfected	Under P. H. Water Act	Under H. W. C. Act	Samples of Water taken	Plans of New Buildings deposited	Corresponding No. 1892
From January 1st to August 25th ...	487	176	251		38	31	4	37	4	14	22	27	16	54	7	1		2	7															31	33	1	17		
From August 25th to December 31st...	363	75	94	19	14	6	3	7	4	13	17	8	3	21	2	1		5	3															24	8		9		
Totals ...	850	251	345	19	52	37	7	44	8	27	39	35	19	75	9	2		7	10	3*	43*	5			1*	11*	1*	56*	1*	2*	8*	5* 5*	1*	55	41	1	26	101	96
																				1*	1*					2*	1*	3*		2*	1*	2							

S Scarlet Fever. D Diphtheria. T Typhoid Fever. G Glanders.

EDMUND BALCHIN, Sanitary Inspector and Surveyor, January 1st, 1893—August 25th, 1893.

THOMAS CHAPMAN BARRALET, Inspector of Nuisances and Surveyor, August 25th, 1893—December 31st, 1893.

F. Maplesden, Printer, Grosvenor Works, East Grinstead.