

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

Contributors

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ANNUAL REPORT
OF THE
MEDICAL OFFICER OF HEALTH
OF THE
SURBITON URBAN DISTRICT COUNCIL,
1906.

BY
OWEN COLEMAN, M.D., M.R.C.S.E., D.P.H.,
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OF HEALTH ;

FELLOW OF THE ROYAL INSTITUTE OF PUBLIC HEALTH.

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1907.



The Urban District Council of Surbiton.

SANITARY COMMITTEE.

1903-06.

Chairman :

R. ACKERLEY, ESQ., M.B.

The Chairman of the Council :

G. M. WALKER, ESQ., J.P., C.C.

The Vice-Chairman of the Council :

REV. A. E. BEAVAN, M.A.

MESSRS. BUTLER, CHRISTMAS, HEPWORTH, HOLLAND,
PALMER, PARRY, SANGER, AND THIRLBY.

Medical Officer of Health :

OWEN COLEMAN, M.D., D.P.H.

Sanitary Inspector :

W. NESFIELD, A.R.SAN.I.

The Urban District Council of Surbiton,

1906.

GENERAL STATISTICS.

Area of Urban District	...	...	...	...	Acres	3,026
Rateable Value	...	...	...	...	£	186,847
Produce of Penny Rate	...	...	...	...	£	635
Population at Census of 1901	...	...	...	...		15,017
Number of Inhabited Houses at Census of 1901	...	...	...	...		2,874
Average Number of Persons per House at Census of 1901	...	...	...	...		5.225
Population at Middle of 1906, Estimated	...	...	...	...		17,367
Density of Population per Acre...	...	...	...	...		5.7
Number of Inhabited Houses at middle of 1906	...	...	...	...		3,574
Average Number of Persons per House ...	...	...	...	...		4.85
Death Rate 1906, per 1,000 Persons living	...	...	...	...		8.8
Average Death Rate for previous 10 years	...	...	...	...		10.86
Deaths from Seven Chief Epidemic Diseases	...	...	...	...		1.03
Birth Rate 1906	...	...	...	...		20.4
Average Birth Rate for previous 10 years	...	...	...	...		20.65
Infant Death Rate (under 1 year old) per 1,000 Births...	...	...	...	...		101.0
Average Infant Death Rate (under 1 year old) per 1,000 Births for previous 10 years	...	...	...	...		99.65

The Vital Statistics for the year 1906, consisting of the Annual Birth Rates and Death Rates, have been published by the Registrar-General, and are here shown in tabular form for comparison.

	Annual Rates per 1,000 living.			Infant Mortality, Annual Death-rate of Infants under 1 Year per 1,000 Births.
	Births.	Deaths from all Causes.	Deaths from Seven Chief Epidemic Diseases.	
England and Wales ...	27.0	15.4	1.73	133
76 Great Towns ...	27.9	16.0	2.24	146
141 Smaller Towns ...	26.5	14.4	1.70	138
England and Wales less the 217 towns...	26.3	15.0	1.18	115
Surbiton Urban Dist.	20.4	8.8	1.03	101

Surbiton Urban District Council.

THIRTIETH ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

1906.

MR. CHAIRMAN AND GENTLEMEN,

The Report that I have now the pleasure of submitting to you on the health and sanitary condition of the District under your care, for the year ended 31st December, 1906, is the thirtieth in succession since my appointment as Medical Officer of Health in July, 1876. Copies of this will be forwarded in accordance with the Order, Art. 18, Sec. 14, of March 23rd, 1891, to the Local Government Board and to the Surrey County Council; also to the Secretary for the Home Office, as required by Sec. 132 of the Factory and Workshop Act, 1901.

In construction it is in compliance with the regulations, and at the end will be found a series of Tables comprising all the details concerning the vital statistics of the District, and it is from Tables similar to these, which are filled up by every Health

Officer, that the County Medical Officer is in his turn able to draw up his Report dealing with the County as a whole. The facts embodied in these figures, and which are worth more than a cursory inspection, show considerable improvement in the vital statistics and apparently point to special circumstances favourable to the public health. These circumstances are, the ever improving sanitary conditions and surroundings of the older buildings, the stringent enforcement of the bye-laws for the construction of the newer houses, the good fortune of a splendid summer, and the favourable geological and climatic conditions that Surbiton naturally enjoys; and the result is a low death rate and a minimum amount of sickness, with one exception that I shall allude to further on.

Concerning these Tables and their purport, a few explanatory comments may be useful.

TABLE I.—Shows the “Vital Statistics of the Whole District during 1906 and previous years,” together with the average of the preceding ten years. An estimate of the population is a very important item, and this becomes year by year an increasingly difficult matter as the period since the last Census, which was 1901, becomes extended. There is the natural increase due to excess of births over deaths to be considered, together with the special local conditions appertaining to the number of new buildings and the number of persons per house, the establishment of new trades or works bringing

operatives and their families, the removal of others, etc. It is always an endeavour to avoid anything like an inflated estimate, for the Census when it comes is apt to bring a stern correction; but after taking all factors into consideration, I have taken it at 17,367, being divided, as shown in Table II., into Surbiton 11,787, Tolworth 3,804, Hook & Southborough 1,776. The total nett deaths that furnish the death rate are those that are registered as having actually occurred in the District itself, with the addition of those deaths from the public institutions outside the District to which the sick are habitually sent, namely, the Union Infirmary, the County Lunatic Asylum at Brookwood and the Royal Surrey County Hospital at Guildford, and excluding deaths at public institutions within our own District of residents belonging to and brought from other places; these are the Surbiton Cottage Hospital, the Isolation Hospital at Tolworth and the Home for Cripples in Cadogan Road. In this way we received 18 deaths from the Kingston Infirmary, 3 from Brookwood Lunatic Asylum and 1 from the Royal Surrey County Hospital, and transferred to their respective localities 4 from the Cottage Hospital and none from either of the others.

TABLE II.—Gives much the same information, but apportioned to the separate localities that make up the united District.

TABLE III.—Deals with cases of infectious disease notified during the year in each of the three

sub-districts and of the cases removed to the Isolation Hospital. This is supplemented by two other Tables bearing on Scarlet-fever, to be found in the remarks on that disease, and which show a comparison between this and former years and also the special incidence of the disease in the different parishes and at different months ; by these means a comparative record is kept of what has happened in the past.

TABLE IV.—Differentiates or classifies the causes of death under their various headings, at different age groups, and in localities at all ages.

TABLE V.—Has to do with Infantile Mortality, and is referred to further on.

VITAL STATISTICS.

DEATH RATE.—The deaths of residents registered as having occurred within the District during the past year were 135, giving the extremely low rate of 7·7 on the estimated population of 17,367. In former years this used to be the mode of arriving at it, but the “corrected” death rate is that obtained by including deaths from outside as already explained or, in other words, the inclusion of those of would-be residents who have been removed to institutions for treatment elsewhere ; amended in this way the nett number of deaths is 153, giving a rate of 8·8 per annum per thousand of the population. This compares with 8·4 of the year before, both very low rates (see column 13, Table I.). Some factors—other

than those of local causation—that must have had a predominant part in the bringing about of the low death rates that are so noticeable here and over the country at large, were the favourable weather conditions and especially the succession of mild winters that we have enjoyed, owing to which a large number of aged people were, so to speak, living on sufferance, and in that way assisting in keeping apart the extremes of population and the number of deaths, adding to the population and lessening the bills of mortality.

ZYMOTIC DISEASES.—By this is meant the seven chief epidemic diseases, and the deaths registered as being due to them are as follows:—Small-pox, 0; Measles, 2; Whooping-cough, 4; Diphtheria, 1; Enteric-fever, 1; Scarlet-fever, 1; Diarrhœa, 9; or 18 in all. This shows a death rate of 1·03, while that for England and Wales is 1·73.

BIRTHS.—The births are actually higher in point of numbers, 356, than at any time during the last 11 years, and are in excess of the average of the ten preceding years by 46; this is due to the considerable increase in Tolworth of the population, the births there this year being 138 against an average of 88, and in Hook and Southborough 46 against an average of 35·7; in Surbiton they are below the average, being 172 against 187 (see Table II.).

The following Table shows how these births are distributed. Notwithstanding the increase this year

the birth rate is only 20·4 to 27·0 for England and Wales.

BIRTHS—SURBITON URBAN DISTRICT.

	Surbiton.		Hook and Southborough.		Tolworth.		Total.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
January ...	12	8	0	1	8	8	20	17
February ...	4	8	2	0	2	5	8	13
March ...	3	5	3	5	7	0	13	10
April ...	10	9	2	4	8	3	20	16
May ...	8	5	1	2	6	6	15	13
June ...	8	6	6	2	4	4	18	12
July ...	10	7	1	1	5	6	16	14
August ...	6	7	2	2	7	1	15	10
September	4	7	1	2	5	8	10	17
October ...	8	7	1	2	7	7	16	16
November	9	6	2	3	13	7	24	16
December	11	4	1	0	6	5	18	9
	93	79	22	24	78	60	193	163
	172		46		138		356	

INFANTILE MORTALITY.—This subject is just now attracting a great deal of attention on all hands, as it is a field wherein a great deal should and can be done locally to prevent the frightful waste of infant life that goes on in this country year by year everywhere, but of course more especially in the larger towns where women who are mothers have to be workers out of the home. A reference to Table V. shows 6 deaths from Diarrhœa and 9 from Enteritis, or 15 deaths in all, under one year of age. The Enteritis here registered is mostly described as muco-enteritis, or gastro-enteritis, and in children

under one year of age is directed to be included under the heading of Diarrhœa. It shows a great increase from the preceding year, when only one case was registered, and from the average of the six preceding years, when only 4·1 deaths took place. Most of these deaths occurred in September, and I think they may be, and probably were, due to the extremely hot weather that then prevailed. This fact, if it is a fact, seems to require investigation, and is referred to further on. Is it just because we have a few weeks of hot weather that the deaths from diarrhœa in this District go up from an average of 4·1 to 15? Why does this hot weather act so prejudicially to infants? If causation is admitted, I think that one way in which a solution may be sought for is in the food. That a spell of inordinate heat is prone to cause diarrhœa is well known. A general relaxation, the gratifying of thirst by all sorts of drinks, and with infants the possibility of milk being given that is undergoing fermentive changes may be taken as possible exciting causes, and there is also the probability that the additions that are frequently made of preservatives to keep the milk from "turning" may be injurious to infants. Milk is more sensitive to atmospheric conditions than most people think; how many, for instance, are aware that onions in a dairy will in a short time affect all the milk, and, if this is so, it can be and is, equally absorbent of germs if brought in contact with tainted food. The ordinary working man's house has next to no suitable accommodation for

storage of food, and it is therefore the more necessary to keep doubtful or "high and tasty" food away from milk. It is the infant who suffers.

Last year this Council was pleased to speak approvingly of the Report that was then laid before it, and expressed a desire, which was given effect to, that a larger number of copies than usual should be printed and circulated amongst the ratepayers, with the double object of endeavouring to interest them in some of the work that was being carried on for their benefit and well being under the direction of the Sanitary Committee, and also, I take it, for the purpose of the instruction that might and could be conveyed by means of such a Report, on such subjects as concerned and interested them. I think this was a wise step in the direction of an endeavour to reach some of those most likely to benefit by what I might term preventive advice, and I also venture to think that the Reports would be more read, and the readers more interested, if they (the Reports) embodied something beyond a mere collection of dry and comparatively uninteresting figures with a few deductions therefrom, and, if a moral may be conveyed in a stage play or a story, there is no doubt but that much useful information may be made to reach some of the many homes where it is sorely needed, if the occupants have it placed before them in some form that will induce them to read it.

Holding these views, and in the belief that I am acting in accordance with the spirit of the instructions issued for our guidance, and that

“the end justifies the means,” viz., the improvement of the public health, I make no further apology for repeating with modifications and some additions what I have previously written on this subject.

I have mentioned above that the extremely hot weather in August and September had possibly to do with the large and comparatively sudden increase of fatal cases of diarrhœa, and also that it is well known, and the fact, that it is in the third quarter of the year that diarrhœa as a rule is most prevalent. A hot and a dry summer, such as that of last year, is associated much more with a diarrhœa mortality than a summer which, though hot, has no long periods without rain; but how far the influence of the rainfall is direct, that is, by washing the atmosphere and preventing the dissemination of dust, and by cleansing and removing dirt from the areas around houses, especially of the working classes; and how far indirect by preventing the rise of the earth's temperature at a depth of three or four feet, it is impossible to decide. It is, however, an established fact that “the maximum mortality of diarrhœa by no means necessarily coincides with the highest readings of the air thermometer, but the temperature of the soil is the essential point, and it is found that the summer rise of diarrhœal mortality does not commence until the mean temperature recorded by the 4-foot earth thermometer has attained somewhere about 56 degrees Fahr.” Rainfall is operative mainly by its effect upon the temperature of the soil.

Diarrhoeal mortality is greater in dry seasons, and less in wet seasons.

This cause is a climatic and apparently an originating cause, and is beyond our control; but in so far as it affects our food and social conditions, a better knowledge of the necessary hygienic or health precautions that could and should be taken would, if put in force, do an immense deal to minimise the consequences, more especially amongst children and infants.

In connection with a declining birth rate and a preventable waste of infant life, it is a matter of national importance that, hand-in-hand with a betterment in the hygienic surroundings of the infant, which the sanitary authority can and does control, there should be a better knowledge of the method of rearing it.

To anyone who has had a long and intimate experience with the methods of feeding and rearing children that prevail amongst the working classes, it is lamentable to see the little progress that has been made during the last thirty years, and beyond what may be put down to a better selection of foods and, certainly in this district, better and purer milk, the maternal knowledge has not advanced to any great extent. How could it be otherwise, when no instruction is available and experience is only gained by crude experiment on their own offspring?

I am not alone of the opinion that it is a matter of national importance that Elementary Hygiene should be taught in our Public Day Schools.

Thousands of lives are lost annually in this country from absolute ignorance as to the proper feeding of an infant, and too often when the doctor is called in, he finds disease has got a firm hold, and that it is almost hopeless to strive for a real and lasting alteration in the mothers' system of rearing. Something has been attempted, and with some measure of success, but the future mothers of our race should, as girls, get some instruction in their school days, and I am sure it would be found to bear excellent fruit in due course.

The crusade against "bottle-fed" infants should be pushed with the utmost vigour, and mothers should be encouraged to perform their maternal duties in all classes of life. Sir William Broadbent, when recently speaking of the india-rubber tube for feeding bottles, said "it was never sweet" and was "infected with microbes," also that the so-called comforter, a rubber teat constantly seen in the mouths of infants, and frequently dipped into sugar, glycerine, or the mother's mouth, was an "invention of the devil"! The obvious difficulty against keeping these rubber tubes clean has largely led to their disuse, and the boat-shaped bottle, in cases where hand feeding is absolutely necessary, is much to be preferred.

Dr. Hope, Medical Officer of Health for Liverpool, has shown that the incidence of death is no less than 15 times greater amongst children under three months of age, bottle fed, than amongst an equal number who are breast fed.

To sum up:—a large proportion of infantile mortality is due to want of cleanliness, ignorance, improper feeding, and negligence during or subsequent to the course of the ailments common to children—measles, whooping cough, etc., and I am sufficiently sanguine to believe that much benefit would assuredly follow if some or all of the following suggestions could be acted on :—

1. The teaching of the principles of Hygiene in our Public Elementary Schools.

2. Lectures on nursing, with instruction in Hygiene and the Rearing of Infants, to be given in the districts where the working classes mostly live, at very nominal fees, and under the direction and control of Lady Health Visitors.

3. The institution of Voluntary Lady Health Visitors having a knowledge of sanitary principles, who would distribute leaflets to mothers and householders, and personally impart instruction on cleanliness and health matters.

4. Or the appointment of a salaried Lady Health Visitor, properly qualified, to act in the same manner as the Parish Nurse at present does. She could take a larger district, and under proper supervision could obtain official information as to births, etc., and offer invaluable advice and assistance in suitable cases. I would commend this latter proposal to the many kindly disposed and philanthropic residents hereabouts, who by pecuniary help could readily contrive to bring it about.

The following Table shows the notifications of the past and previous years :—

EXTRACT FROM NOTIFICATION REGISTER.

	Scarlet Fever.	Diphtheria and Memb. Croup.	Enteric Fever.	Puerperal Fever.	Ery- sipelas.	Contn. Fever.	Small Pox.	Totals.
1890...	3	36	1	2	4	0	0	46
1891...	3	21	1	0	10	0	0	35
1892...	4	16	3	1	5	0	0	29
1893...	94	23	5	2	15	2	1	142
1894...	9	20	12	2	12	0	0	55
1895...	18	12	5	0	2	0	0	37
* 1896...	27	9	4	1	10	0	0	51
* 1897...	16	9	2	1	3	0	0	31
* 1898...	13	6	2	0	6	0	0	27
* 1899...	48	2	7	1	11	0	0	69
* 1900...	15	22	2	0	7	0	0	46
* 1901...	59	47	2	0	7	0	0	115
* 1902...	22	19	2	1	8	0	0	52
* 1903...	58	9	6	0	5	0	1	79
* 1904...	22	10	4	1	4	0	0	41
* 1905...	72	3	2	0	4	0	0	81
* 1906...	41	7	2	0	9	0	0	59

* The combined Districts.

SCARLET FEVER.—During the past year there were 41 cases notified, of whom 36 were removed to the Isolation Hospital, and one case died. The year before there were 72 cases; 60 went to the hospital, and one died. There was then an outbreak at Hook. The following Table shows where and when these cases arose during the year :—

TABLE,

Showing Incidence of Scarlet Fever during 1906.

	Surbiton.	Tolworth.	Hook and Southboro'	Total.
January	3	1	—	4
February	1	—	1	2
March	—	—	—	—
April	2	—	—	2
May	2	1	1	4
June	2	2	—	4
July	1	1	1	3
August	—	3	—	3
September	—	1	1	2
October	5	2	—	7
November	1	1	2	4
December	2	4	—	6
	19	16	6	41
Removed to Hospital ...	15	15	6	36

By this it will be seen that there was no outbreak, but a pretty regular flow of cases throughout the year, an average, in fact, of 3·4 cases per month, and in no month did the number run into double figures, though the highest number, 7, was attained to in October, the month in which experience tells us there is a tendency to recrudescence. The cases were distributed all over the district, and it was scarcely ever possible to trace a connection between one case and another. I have ascertained that this disease has prevailed more or less extensively all over the country, and fortunately furnishes confirmation of the fact that the type is becoming much milder. For instance, it is interesting to notice how very lightly we have suffered when we examine the figures furnished in some other districts elsewhere.

I quote the only two that have come, so far, to my knowledge. A town C, with a population of 47,898, had 670 cases and 9 deaths. A town D, with a population of 32,490, had 324 cases and 10 deaths. This was in 1906. I have no information as to whether these towns have the advantage of an Isolation Hospital, but it may be taken for granted they have; nevertheless we may, I consider, fairly assume that our Hospital has been to some extent the means of saving us from a far larger number of cases than we otherwise should have had. Last year at this time the question of an enlargement or not of the Tolworth Hospital was still *sub judice*, and I referred to the subject in my Report then about to be issued, pointing out that though the hospital did not afford beds in the proportion that was generally accepted as a basis for the population to be served, viz., one bed per thousand of the population, yet as we were at that time, and still are, I apprehend, in the position of being able to dispose of our surplus cases in the neighbouring hospitals at a cost per case less, certainly not more, than we are paying at Tolworth, I could not see the necessity for incurring so large an expenditure, the more so as we could not hope to make an addition sufficient to cope with outbreaks. However, I considered the matter was mainly one of finance, and that if any addition was to be made, it should be a *sine quâ non* that two or more single-bedded observation wards should be provided. Since then the Joint Board has decided to proceed with the

work, and these wards are to be built, so there will, at least, be some real benefit accruing.

DIPHTHERIA.—Seven cases in all were notified during the year, but in none was any cause ascertained with certainty. The diagnosis in every instance was confirmed by bacteriological examination. In three cases sanitary defects, defective drainage, were found and remedied. One case was clearly imported from outside, arriving here on a visit with premonitory symptoms and from a private school “where they had had several cases of sore throat during the latter part of the term.” All the patients were removed to the Isolation Hospital.

Fortunately we have escaped any outbreak, but in view of the protean changes in the type of the disease, an epidemic may arise almost, as it were, suddenly. One case, the only one, of these seven terminated fatally; she was the only child in the family and was removed to the hospital when her condition became suspicious, but, had not this case been early put under strict isolation and observation, for which due credit should be given to the medical men under whose care she was, irreparable mischief might have been occasioned. Diphtheria can and does offer cases in every grade, from the mildest unrecognised and unrecognisable (except by the expert bacteriologist) type to the most virulent. It is to the mild unrecognised “ambulatory cases” that spread of the disease is chiefly responsible, and it is marvellous that we are ever free from it in its worst forms. The theory that

defective drainage, exposure to sewer air, and insanitary surroundings are the "principal causes" or the creative factors of diphtheria belongs to the past and is not founded on fact or on experience. But nevertheless insanitary conditions must always be searched for and remedied, for at least they are contributory causes by lowering the general health of the inmates of the house and his or her resisting power if exposure to germs arises, for then the mucous membrane of the mouth or nose offers sites more favourable for the implanting and development of any germ (bacillus) that may come into contact therewith. Equally important is damp in cupboards, walls or flooring as favouring the growth of these germs. All this resolves itself again into the extreme necessity of care in the treatment of "occasional sore throat," when perhaps nothing is visible beyond superficial redness, especially if accompanied with a cold in the nose with discharge-rhinitis.

ENTERIC FEVER.—Two cases only were reported; both were removed to the hospital and one died. The drainage of the houses from whence these cases were removed was found defective, in one case very much so, but, notwithstanding, no other cases occurred. It is not established that the disease in either case was necessarily due to these facts.

PHTHISIS.—There were 7 deaths from this complaint, as compared with 14 in 1905 and 12 in 1904. As soon as a death from this disease is registered, a special return is sent in by the Registrar

and the disinfection and cleansing of the room lately occupied and of its contents is immediately taken in hand.

TUBERCULOSIS. — The Royal Commission on Tuberculosis has just issued, in January of the present year, its second interim report, and it is one which will attract considerable attention, and in all probability lead to legislation in due course. In March, 1899, the Local Government Board, as a corollary to the first interim report, which had then shortly before been presented, issued a circular letter, together with Model Regulations amending the previously existing Dairies and Cowsheds Order of 1885, to the various Local Authorities throughout the country. The necessity for this was that though the 1885 Order dealt with disease existing amongst cattle in a dairy or cowshed, the term "disease" was by that Order limited to those included in the Contagious Diseases (Animals) Act, 1878, of which tuberculosis was not one. When the Royal Commission had demonstrated the danger of tuberculosis being transmitted both by milk and as meat, the Local Government Board, seeing that Local Authorities had no power to deal with tuberculosis in milch cows, proceeded by these amended regulations to provide authority for a "Council to employ and pay a veterinary surgeon with a view of obtaining a certificate . . . or to appoint him as an officer for this purpose, if they thought fit to do so." This was of the first importance, but, since

it was only permissive and not obligatory, it became of no advantage unless the Local Authority elected to avail itself of this permission. This was what the Urban District Council of Surbiton did, being one of the first authorities in this part of the county to do so, and we have now a paid Veterinary Inspector, appointed August 1st, 1900, who duly inspects every three months every cow in the district that is kept for trade purposes, and reports to the Council, who then, in a case of declared disease, deals with it through its officers in the manner prescribed for unwholesome food. Moreover, this Council commenced a correspondence with surrounding Authorities with a view to inducing them to take similar action. This was obviously necessary, since the milk produced in one district is oftentimes sold in another, and, to protect ourselves properly, it was essential that other districts should also adopt these amended regulations.

The Council next passed a resolution on the 14th December, 1903, dealing with the matter of co-operation in veterinary inspection of cows on the part of neighbouring districts; and on the 8th November, 1904, a letter was addressed to the Local Government Board urging them to make this examination compulsory instead of optional. So far, however, nothing was done, and other Authorities were not over quick to avail themselves of this permission, so that it was not until last year that a proper veterinary inspection of cows was instituted in a neighbouring district, from whence a not

inconsiderable proportion of milk was brought daily for sale within our area, and then only after a very suspicious case had occurred necessitating investigations and representations.

In the second interim report of the Royal Commission on Tuberculosis, amongst other conclusions, the following are noticeable :—

(a) “ We feel justified in asserting that the tuberculosis set up by the bacillus of human source is, so far as its anatomical and histological features are concerned, one and the same as the tuberculosis set up by the bacillus of bovine source.”

(b) “ There can be no doubt but that in a certain number of cases the tuberculosis occurring in the human subject, especially in children, is the direct result of the introduction into the human body of the bacillus of bovine tuberculosis ; and there also can be no doubt that, in the majority at least of these cases, the bacillus is introduced through cow’s milk. Cow’s milk containing bovine tubercle bacilli is clearly a cause of tuberculosis, and of fatal tuberculosis in man.”

(c) “ A very considerable amount of disease and loss of life, especially among the young, must be attributed to the consumption of cow’s milk containing tubercle bacilli. The presence of tubercle bacilli in cow’s milk can be detected, though with some difficulty, if the proper means be adopted, and such milk ought never to be used as food. There

is far less difficulty in recognising clinically that a cow is distinctly suffering from tuberculosis, in which case she may be yielding tuberculous milk. The milk coming from such a cow ought not to form part of human food, and indeed ought not to be used as food at all."

And then follows this natural and wise admonition: "Our results clearly point to the necessity of measures more stringent than those at present enforced being taken to prevent the sale or the consumption of such milk."

These conclusions very strongly endorse the value of having periodical examinations of milch cows and of suitably dealing with cows that are infected, or that are even under suspicion, for, in other words than those used in the report, it is much easier to discover tubercle in the cow than it is in the milk. It is this clinical examination of the cows that we have adopted, but in view of the conclusions so unambiguously stated in the report, I am quite disposed to think that the inspections ought to be held more frequently.

In a large town that claims to be the first in the kingdom to institute such a system of inspection, some eight and a half years ago, the Veterinary Surgeon inspects the cattle every three weeks, and oftener if necessary; he sends in his report once a quarter, but gives immediate notice to the Medical Officer of Health if any case of bovine disease is found. All newly-purchased cows are inspected at

the earliest opportunity. Let us take this into consideration.

CANCER.—There were 10 deaths this year from cancer. In 1905 and 1904 there were 18 in each ; in 1903, 17 ; and in 1902, 12. We still are expectant of discoveries as to the causes of this disease, and much research work is being done in all civilised countries to that end.

DAIRIES, COW-SHEDS, AND MILKSHOPS.—These have been periodically inspected by the Sanitary Inspector, as detailed in his report, and a close supervision is also being kept on the milk sold in the district, that is to say, on that which is produced within our own boundaries. As the law stands at present we have no authority or control over that which comes by rail, and this perpetuates what is a real hardship in certain quarters, but is one which we are assured “ will receive careful consideration in the event of any further legislation as to the sale of milk being proposed.” At present the milk vendor is alone proceeded against for adulteration, but this constitutes a grave anomaly, for the law under the Sale of Food and Drugs Act makes the distributor alone responsible, and does not include the producer, while the purport of the Act is obviously to protect the consumer.

ACCIDENTS AND INQUESTS.—Through the courtesy of Dr. H. M. Taylor, H.M. Coroner for this division of Surrey, I have received a return of the inquests

held during the year. There were 12 in all, but only 10 rightly belong to this district.

The verdicts returned were :—

Deaths from natural causes	...	...	5
„ accidental injuries	...	...	3
„ drowning	...	...	2
„ suicides	...	...	2
			—
			12

NEW HOUSES.—THE REVENUE ACT OF 1903.

In 1890 the Customs and Inland Revenue Act granted exemption from Inhabited House Duty to all houses used solely for providing separate dwellings at rents not exceeding 7s. 6d. per week for each dwelling, if the Medical Officer of Health certified that the premises afforded suitable accommodation for each of the persons inhabiting them, and that due provision was made for their sanitary requirements. This exemption was in order to encourage the erection of artisans' dwellings on good lines, and it has proved a useful piece of legislation.

The Revenue Act of 1903 extends the provisions of the former Act, and now where a dwelling house is used for the sole purpose of providing separate dwellings it is enacted that (a) Any dwelling which is of an annual value of below £20 shall be exempt from Inhabited House Duty; (b) The rate of Inhabited House Duty in dwellings of an annual value of £20 but not exceeding £40 is reduced to 3d.; and (c) The rate in respect of dwellings beyond

an annual value of £40 and not exceeding £60 is reduced to 6*d*.

Applications under these Acts were made for certificates with respect to the following properties :—

Nos. 9 to 14, Ravenscar Road.

Chichester House, Ewell Road.

Tower House, Ewell Road.

The premises were inspected to ascertain if they were suitable to be used as tenements.

The water test was applied to the drains, and the smoke test to the internal sanitary fittings, and after the defects found were made good the certificates were granted.

The following Table shows the number of new houses built last year and in the five preceding years :—

Year.	HOUSES BUILT.			Total.
	Surbiton.	Tolworth.	Hook and Southboro'.	
1901	19	94	6	119
1902	28	79	16	123
1903	18	61	33	112
1904	41	81	9	131
1905	27	69	18	114
1906	35	71	23	129
Total for 1901-6	168	455	105	728

Average number of persons per house (1901 Census) 5·225.

MIDWIVES ACT.—The working of this has been the subject of a special report to the County Council through the County Medical Officer. Supervision has been given to the work done, and so far there have been no complaints, and every disposition has been shown by those immediately concerned to comply with the regulations.

SANITARY WORKS.—This year has seen the completion of the tramways installation, and the street traffic is once more in working order. The convenience is undeniable, but the ultimate benefit to this particular district, if a benefit at all, will depend on the point of view of the person taking it into consideration. They—the tramways—certainly make for cleanliness as far as the roads are concerned, and from a health point of view that is no small matter.

In my last report I drew attention to the need of more efficient road scavenging, and suggested, as a useful and necessary sanitary measure, the employment of boys to keep clean the great lengths of wood paving we now have. The Council acted on this and the result has given universal satisfaction. I would now go further and ask that it be taken into consideration whether the benefits obtained could not be somewhat extended, say, to the Brighton Road from the railway arch to the Maypole, and to the whole length of the Maple Road, and, further, that the lads employed should, for their own protection, working as they do amongst wheeled and quick moving traffic, and to mark their official position on

the roads, be given a suitable uniform, such as a red jacket with a cap and a waterproof cape, seeing that their employment is now permanent and in all weathers, and that they should be at least as well provided for in that respect as the telegraph messengers, for their exposure is continuous and not intermittent. The need for extension of this work is very apparent, for until some reliable dust laying application is generally adopted, or the roads are differently made up, the dust, in spite of all watering, will at times be excessive. A considerable number of cases of sore throat, inflamed eyes and nasal troubles are known to be due to the infection conveyed by germs associated with putrid horse manure in dusty weather, and these troubles we have always had with us, but now they affect a larger number of people than formerly and attract more attention in consequence of all of us having to inhale so much more dust. As horses get fewer and the use of motors for all purposes more general, even if the dust is still plentiful, it will at least be by so much the cleaner and the place the healthier.

The report presented this year shows progress and improvement in many directions. The Sanitary Committee is charged with the administration of the Public Health Act and the associated bye-laws and regulations, and the Council gives effect to its recommendations. This is its duty, and it must be generally conceded that that duty is carried out efficiently and with satisfactory results, as witness the growth of the place and the manner of its up-

keep, bearing as fruit the satisfaction and approval of the ratepayers and the convincing facts tabulated under "Vital Statistics." This has been going on for years not only in the sanitary, but also in the highway, finance, and other departments, and, as a consequence, the popularity of the district as a high class and healthy neighbourhood is well known and well deserved.

Surbiton is not a commercial town but a residential, and its prosperity depends upon its attractiveness, added to the attractions so bountifully bestowed on it by nature. The well-being of the trading section rises or falls with the success of the inducements held out by the inhabitants, represented by its governing body, for others to come and reside here, and I have long noted that with prospective new comers the foremost consideration is naturally the sanitation and health giving properties of the district, and then its natural beauties and its attractive surroundings. In sanitation I think we may fairly say we have set our ideal high and striven to attain to it. Let us, in addition, see to it that we make Surbiton as beautiful as we can and so add to the pleasure and satisfaction of its residents. Much of the beauty and many of the attractions of past years have gone, notably its semi-rural aspect. The exigencies of growth and development have done much to deprive us of this feature, hastened by the destruction and mutilation of the many fine trees we formerly possessed. Trees in inhabited districts are health-giving and beneficial, purifying the air and

absorbing excess of moisture besides being very beautiful ; we ought to have far more in our roads than we have at present, and they should be allowed to grow and develop and receive more attention. Some years ago public opinion led to trees being planted in many of the thoroughfares, but they were never properly cared for, and mostly died from excessive mutilation and from drought. Look how Eastbourne, Folkestone, Bournemouth, and many other places plant and cultivate, and what attractions these trees in time become. Witness also the outcry about the mutilation of the plane trees on the Victoria Embankment.

Another point in this same direction, and one for valetudinarians. The old Commissioners in their wisdom and consideration erected seats in many places in the district ; half way up all the hills :—Brighton Road, St. Mark's, Waggon and Horses, and Oak Hill Path, and here and there along the roads, but some few years ago these were objected to in certain quarters on the grounds of their so-called abuse, and they were done away with in a wholesale manner, and the many, comprising old people, invalids, convalescents, weaklings, tired folk, nurses and children, were largely deprived of this benefit to satisfy the outcry of the few as to a supposed misuse. Either these resting places are desirable or they are not, and if desirable, as I strongly maintain they are, and I am certain I carry medical opinion with me, their abuse is a police matter and one well within their control. Most convalescents out for

their daily walks, in all classes of life, have to curtail them owing to fatigue and not being able to sit down, and so spend half an hour instead of possibly several hours in the fresh and healthy air outside their homes. In these latter days, when the benefits of "open air treatment" is everywhere being insisted on, we ought to put facilities in the way of those desiring it rather than restrict their enjoyment. Well-to-do people take a carriage drive for one or two hours daily; those who have no means of doing this, and cannot do much walking, are perforce sadly handicapped for want of more frequent and suitable public seats.

New sewers have been constructed in Oak Hill Grove and Grove Footpath, the old sewers having collapsed.

Under the Private Street Works Act the Ravenscar Road, Tolworth, and Crane's Drive were made up.

The road in rear of the Electric Parade has been paved with concrete and properly drained in default of the owner's complying with the magistrates' order made last year under the Nuisance Clauses.

Where necessary the houses in many streets are now being re-numbered.

SEWAGE DISPOSAL.—The new sewerage scheme has been under prolonged and frequent consideration throughout the year, and at the moment of writing has just been subjected to a Local Government Board Enquiry, and in due course, sanction no doubt

will be given to the necessary loan for the purpose of carrying out this very important work. At the earliest opportunity the sewage of the Tolworth and Hook portions of the district will be diverted, to the relief of all concerned, for though the effluent discharged by the brook is from time to time a great nuisance and source of annoyance to those in its neighbourhood, yet it is not a nuisance dangerous in itself or injurious to health. Every possible attention is and will be directed at the sewage farm to the character of the effluent, and every effort made to keep clean the bed and the banks of the brook itself.

GAS COOKING STOVES.—The notable increase in these useful and economical additions to the comfort of the working man's house, and others, brings with it a great necessity for care, and an added responsibility both to builders and occupiers which should not be overlooked when plans are submitted for consideration to the Building Plans Committee.

There is as everyone knows a vast difference between good and bad gas, but no matter how carefully it may be manufactured the numerous products that result from combustion, in the absence of proper ventilation, are injurious to health. How many people will hesitate, and rightly hesitate, before having gas fires fixed in bedrooms, notwithstanding their many advantages of cleanliness, saving of extra work, speedy utilisation, &c., on account of their known and insidious dangers should anything go

wrong, and yet will have them in living rooms and tiny kitchens or sculleries for hours together. Remember and note, that "an ordinary flat flame gas jet consumes about five times as much oxygen and produces about three times as much carbonic acid gas as an adult man. All gas contains a certain proportion of sulphur, and the sulphuric and sulphurous acids arising from this may make the air of a room decidedly unpleasant. If, however, the gas is fairly purified from bisulphide of carbon, and particularly if incandescent mantles are used, no trouble should arise from this source provided the carbonic acid in the air does not exceed about 20 volumes per 10,000 " (Haldane).

The popularity of the gas cooking stove, or "cooker," as it is colloquially termed, is enormous; I understand that at least 20,000 may be in use in Birmingham, and besides being found in increasing numbers in new houses that are being erected it is being adapted to many of the older ones, and is likely to increase still further under the stimulus of the penny-in-the slot system and the terms of hire offered by the gas companies. It is therefore of paramount importance that ventilation should be attended to, and that with an extension of its use a better knowledge should prevail of the dangers that may and do exist. The use of the gas stove is to be deservedly commended for its many advantages, and also because amongst other things it must in no small degree tend to lessen the amount of smoke that would otherwise be pouring from the chimneys of open

grates, to the ultimate benefit of the whole neighbourhood. By all means let the gas stove be used, but let the position it is to be placed in be decided by an expert, such as the man sent out by the gas company, and it would be well that the attention of architects and builders should be directed to the advisability of making a small and suitable recess for the reception of the stove or "cooker" in some position readily adaptable for ventilation. This, if done in the first instance, is better done, and far cheaper than the expense afterwards entailed by structural alterations and additions.

I submitted the above notes to Mr. H. W. Packham, the courteous and capable Manager of the Kingston Gas Company, and subsequently had an interview with him on the subject. He writes me, amongst other things: "The number of gas cooking stoves on hire from the Company is now over 8,000, and we are fixing at the rate of 100 per month. It is seldom that we are called on for escapes, as all work that is carried out by our men is properly tested before being left. Your suggestion that a recess should be made for the stove is an excellent one, and I think the builders would not object to this as many are now finding the great advantages of the gas stove, and also that the tenants will have one fixed, in fact some builders arrange with us to fix a stove when the house is first built in order to save the walls, &c., being cut afterwards. He also draws particular attention to the importance of keeping stoves clean

in order to avoid smells caused by fat being allowed to remain on the side of the oven."

I think this subject, in view of its bearing on the health of the inmates of the house and particularly of the children, owing to the confined space and often inadequate means of ventilation, of sufficient importance to justify attention being drawn to it.

Before concluding, I wish to bring to the notice of the Council the very excellent, able and painstaking report of the Sanitary Inspector (Mr. Nesfield), who has had an immense deal of work to get through, and has done it exceedingly well and satisfactorily. I would also add the expression of my obligations to him for his courteous and ready assistance on all occasions when I have required it.

I desire also to thank you, Mr. Chairman, and the Members of the Council, and my brother officers, for the kindness and consideration shown me at all times during the past year. It is no small gratification to me to feel that during the thirty-one years I have had the honour to hold my present appointment, I have never experienced anything but good feeling and appreciation on the part of those it has been my privilege to serve under and with.

I am,

Mr. Chairman and Gentlemen,

Yours obediently,

OWEN COLEMAN, M.D., D.H.P.,

Medical Officer of Health.

March 18th, 1907.

SANITARY INSPECTOR'S ANNUAL REPORT.

February 28th, 1907.

TO THE MEDICAL OFFICER OF HEALTH.

SIR,

I beg to submit my Eleventh Annual Report of the work done in the Sanitary Department during the year ending December 31st, 1906.

COMPLAINTS.

During the year 97 complaints relating to nuisances in the district were received, viz. :—

Defective condition of house drainage	...	...	32
Insanitary condition of premises	...	...	15
Offensive smells from various causes	...	...	14
Offensive accumulations	...	...	13
Closets without a supply of water	...	...	4
Want of dust receptacles	...	...	3
Non-removal of house refuse	...	...	5
Animals kept so as to be a nuisance	...	...	5
Nuisances from overcrowding	...	...	4
Smoke nuisances	...	...	2
Total			<hr/> 97 <hr/>

Each complaint was duly recorded in the Complaint Book and immediately investigated and all necessary steps were taken in respect thereof.

The complaints regarding the non-removal of house refuse were, as in previous years, acknowledged, and referred to the Surveyor's Department,

under whose supervision the removal of house refuse is carried out.

INSPECTION OF DISTRICT.

Systematic inspection of the District has been made in accordance with the General Orders of the Local Government Board, and Section 92 of the Public Health Act, 1875.

In this way many nuisances have been discovered, which probably would never have been brought to the notice of the Public Health Authority nor even of the persons whose health was endangered by their continuance.

In all some 2319 visits were paid to premises in connection with the work of the department, and include visits to Dairies, Cowsheds and Milkshops, ordinary inspections, visits to houses from which complaint of a nuisance had been received, and to houses in which cases of infectious disease had occurred; visits to works in progress, inspection of Bakehouses, Workshops, etc.

In one instance admission to premises for the purpose of examining as to the existence of a nuisance was refused by the occupier. After giving notice as provided by the Act, application was made to the Magistrates for an order to enter the premises.

The order was granted together with 10s. costs.

NOTICES SERVED.

As a result of these inspections 114 preliminary

and 143 statutory notices were served, of which the following is a summary :—

Preliminary notices	...	...	...	...	...	114
Notices under Section 36, Public Health Act, 1875	...					14
" " Section 41, Public Health Act, 1875, to						
" " relay house drains	...	...	...			42
" " Section 41, Public Health Act, 1875, and						
" " Section 19, Public Health Acts Amend-						
" " ment Act, 1890, to relay defective com-						
" " bined drains	...	...	...	...		22
" " Section 94, Public Health Act, 1875	...					30
" " Section 102, Public Health Act, 1875	...					1
" " Housing of the Working Classes Act, 1890						1
" " Bye-laws to pave yards	...	...	...			31
" " The Dairies, Cowsheds and Milkshops						
" " Order, 1885	...	...	...	...		1
" " Bye-laws for tents, vans, sheds, etc.	...					1
Total						257

Wherever nuisances were found to exist preliminary notices were immediately served upon the persons responsible calling attention to the matter and pointing out the necessary remedial works. If these notices were not complied with reports were made to the Sanitary Committee and the usual statutory notices were authorised to be served.

In the majority of cases the notices were readily complied with. In no case was it found necessary to institute summary proceedings before the magistrates to secure the abatement of any nuisance.

At the close of the year nearly all the notices had been complied with, and in the remaining cases the work is in hand.

The following matters have received attention during the year :—

HOUSE DRAINAGE.

In consequence of written complaint alleging a nuisance from defective drainage, the Council directed me to open the ground and examine the drains belonging to 43 houses and report upon their condition.

In each case insanitary conditions were found to exist, and notices, under the provisions of Section 41 of the Public Health Act, 1875, were served upon the persons responsible to repair or reconstruct the drains as occasion required.

In one instance a combined drain was reconstructed by the Council at the request of the owners on their agreeing to repay the expense.

Combined drains used for the drainage of six blocks of houses, each block belonging to one owner, have been re-constructed at a cost to the Council of £172 6s. 6d., the liability for such drains being thrown on the council by recent decisions under Section 4 of the Public Health Act, 1875.

Altogether the drains of 42 houses and premises have been entirely re-constructed and brought up to date.

The drains of 57 houses have been cleared from obstruction or repaired, and 108 defective brick or iron traps have been removed and replaced with properly trapped gullies.

The materials used in the construction of new drains are generally stoneware, but I have frequently recommended the use of heavy coated cast iron pipes as they are of greater strength, there are fewer joints (one every 9 feet, compared with one in every 2 feet of stoneware), the joints being made of lead can be tested immediately and the risk of fractured collars caused by the expansion of cement is avoided.

It is economy for property owners to use cast iron pipes for drainage work, as they are the only means of securing a permanent and reliable drain which remains watertight. This cannot be claimed for a stoneware pipe drain, for no matter how good the workmanship, it is frequently found that stoneware pipe drains on being tested (sometimes only a few weeks after construction) are found defective and have to be taken up and re-laid.

Ninety water tests were applied to drains and 64 smoke tests applied to soil pipes and ventilating shafts.

WATER CLOSETS.

Seventeen dilapidated water closets have been pulled down and re-built in an improved manner or position.

Thirteen w.c. apartments have been efficiently lighted and ventilated.

Twenty-nine w.c. pans have been cleansed or repaired.

Sixty-nine defective or insanitary w.c. pans have been abolished, and pans of an approved type fixed.

Twenty water-closet flush pipes have been disconnected from the domestic supply cistern, and separate flushing cisterns provided.

One draw-off tap has been disconnected from the w.c. flushing cistern and connected direct with the main.

Twenty-five defective or insufficient flushing cisterns have been removed, and valveless syphon cisterns, of full 2-gallon capacity, fixed.

Twenty-eight defective flushing cisterns have been repaired.

Two closets have had a sufficient supply of water laid on.

SOIL AND VENTILATION PIPES.

Fourteen defective light cast iron or zinc soil pipes have been abolished, and replaced with lead or strong cast iron pipes.

Nine defective soil pipes have been repaired and the joints made sound.

Six defective and unventilated soil pipes inside dwelling houses have been abolished, and new ventilated soil pipes fixed outside the buildings.

Fifteen additional 4 inch ventilating shafts have been fixed to properly ventilate drains.

Three defective ventilating pipes have been repaired.

RAIN-WATER PIPES, GUTTERS, ETC.

Thirty-four defective eaves gutters have been repaired.

Twelve houses have been provided with eaves gutters to carry away the rainfall from roof.

Sixty-seven defective rain-water pipes have been repaired.

Twenty-eight rain-water pipes have been disconnected from drains or soil pipes, and arranged to discharge over or into properly trapped gullies.

STORAGE CISTERNS.

Four houses, where the storage was insufficient, have been provided with an additional storage cistern.

Six dirty storage cisterns have been cleansed.

Four have been provided with covers.

Two storage cistern overflow pipes have been disconnected from the drain and arranged to discharge through the outside wall into the open air.

WASTE PIPES, ETC.

Five defective sinks have been abolished and new impervious sinks fixed.

Sixty new trapped waste pipes have been provided to baths, sinks, lavatory basins, etc.

Twenty bath, sink or lavatory basin waste pipes have been trapped or disconnected from the drain.

Six bath, sink or lavatory basin waste pipes have been repaired.

DAMPNESS.

Thirty-one defective roofs, causing dampness inside dwelling houses, have been repaired and made weatherproof.

Fourteen houses have had the space under the floors covered with concrete and ventilated to prevent dampness.

MISCELLANEOUS.

Fifty dirty or unwholesome houses have been cleansed and whitewashed.

Thirteen defective or dangerous floors have been repaired.

Fifteen defective or dangerous ceilings have been repaired.

Twelve defective or dangerous house walls have been repaired.

Five offensive accumulations have been removed.

Seven nuisances from animals improperly kept have been abated.

Two stables have been provided with proper manure receptacles.

One house has had a sufficient supply of water laid on.

Two polluted wells have been closed.

PAVING OF YARDS.

The yards, and where necessary the side passages, of 34 dwelling houses have been paved with impervious materials and properly drained.

The execution of this work is very much appreciated by the occupiers of small property because it prevents nuisances arising from surface water soaking into the foundations of the dwelling or standing in pools on the surface until it becomes stagnant. Cleansing is also greatly facilitated and dirty and insanitary conditions prevented.

In no case has it been found necessary to take legal proceedings before the Magistrates to enforce the Bye-laws dealing with this matter. On the contrary, owners, especially of the smaller class of property, have been most prompt in complying with the notices served, a fact which shows that they are generally in sympathy with this class of sanitary improvement when the amount of paving demanded is reasonable.

It is usual to take each case on its merits and not to demand the whole of any yard to be paved irrespective of any nuisance or insanitary conditions existing, simply because it abuts upon a dwelling house.

Table showing the number of yards paved since the Council adapted the Bye-laws relating to the paving of yards and open spaces:—

1899	1900	1901	1902	1903	1904	1905	1906	Total.
13	14	32	114	65	75	69	34	416

HOUSES UNFIT FOR HUMAN HABITATION.

Fourteen houses have been reported to the Sanitary Committee as being unfit for human habitation.

Of these, twelve have been thoroughly overhauled and put into a satisfactory state of repair, and the owner of the two remaining ones has intimated that he will carry out the work necessary to make them fit for human habitation.

DUST RECEPTACLES.

New portable galvanized iron dustbins with tight fitting lids have been provided to 15 houses where none previously existed; and three brick ashpits which were in such a state as to be a nuisance have been abolished and replaced by portable galvanized iron dustbins.

OVERCROWDING OF DWELLING-HOUSES.

During the year four houses were found to be badly overcrowded, so as to constitute a nuisance, injurious or dangerous to health.

In each case the nuisance was abated on a notice being served.

GIPSY ENCAMPMENT.

In the month of October a number of complaints were received of a nuisance caused by a gipsy encampment in a field situate in Hook Road.

Notices were at once served under the Bye-laws

relating to Dwellers in Tents, Vans, Sheds, etc., upon the owner of the field to prevent the nuisance.

This had the desired effect, the owner preferring to have the field vacant rather than incur the expense of providing a proper water supply and sufficient sanitary conveniences for the use of the van dwellers.

DISINFECTION.

In accordance with the instructions of the Medical Officer of Health, disinfection has been carried out after the following cases of infectious disease upon the removal, recovery, or death of the patient :—

Scarlet fever	...	...	...	...	41
Diphtheria	...	...	...	...	7
Typhoid fever	...	...	...	...	2
Erysipelas	...	...	...	...	1
Consumption	...	...	...	...	5
Measles	...	...	...	...	4
Total					<hr/> 60 <hr/>

All bedding and other articles likely to retain infection were removed to the Tolworth Isolation Hospital for steam disinfection.

Disinfectants were supplied to the occupiers of the infected premises, and where necessary the owners or occupiers were called upon to strip and cleanse the interior walls of the infected rooms and whitewash the ceilings.

The houses were also inspected as to their sanitary condition, and upon any defects being found

notices were forthwith served upon the persons responsible to remedy the same.

The following is a list of the articles of bedding, wearing apparel, etc., removed during the year from infected premises to the Tolworth Isolation Hospital for steam disinfection :—

Beds	44
Mattresses	55
Palliasses	43
Bolsters	59
Pillows	133
Sheets	118
Blankets	211
Counterpanes	67
Carpets	63
Rugs	31
Cushions	48
Toilet covers	127
Towels	61
Wearing apparel	973
Curtains	147
Blinds	52
Sundries	662
Bed valances	30
Quilts	21
Pillow cases	34
Mattress covers	24
Furniture (chairs, etc.)	15
Total ...	<u>3,018</u>

FACTORY AND WORKSHOP ACT, 1901.

The number of workshops and workplaces now on the register is 184, compared with 189 at the end of 1905.

Visits have been paid from time to time as

occasion required, and the following nuisances have been detected and abated :—

Defective drains repaired	...	...	1
Defective floors repaired	...	...	1
Defective pans in w.c. removed and new ones fixed	...	...	2
Defective w.c. flushing cisterns repaired	...	...	2
Workshops cleansed	..	...	1
Workshops ventilated	...	...	1
Total	...	...	<u>8</u>

In no case has complaint of a nuisance been received from the Factory Inspector.

BAKE-HOUSES.

The bake-houses in the District have been inspected twice during the year and found to be clean and well kept. In no case has it been necessary to serve a notice for any bakehouse to be cleansed and whitewashed.

SLAUGHTER-HOUSES.

There are six registered slaughter-houses in the District; these have been regularly visited and found to be kept in a clean and satisfactory condition.

The quarterly limewashing, as required by the Bye-laws, has on all occasions been carried out by the occupiers on receipt of verbal notice.

The floor of one slaughter-house was found to be defective, but was at once remedied on the occupier's attention being called to its condition.

UNSOOUND FOOD.

During the year frequent visits have been made to the various shops and premises where articles of food, meat, etc., are sold or prepared for sale.

One seizure of unsound beef was made under Section 28 of the Public Health Acts Amendment Act, 1890, in conjunction with Section 116 of the Public Health Act, 1875.

A sackful of winkles and a basket of crabs were surrendered and destroyed.

DAIRIES, COW-SHEDS AND MILK-SHOPS.

The dairies, cow-sheds and milk-shops have been inspected quarterly during the year, and at irregular periods as occasion required. Generally speaking they were found to be in accordance with the regulations in force in the District.

There are 21 persons registered under the Act as follows:—Cowkeepers, 1; cowkeepers, dairymen and purveyors of milk, 3; purveyors of milk, 10; dairymen and purveyors of milk, 6.

The average number of cows kept by the persons registered is 234, all of which are under periodical inspection by the Council's Veterinary Inspector.

No cow was found to be infected with tubercular disease of the udder, but in some of the sheds cows were found to be in a very dirty condition, their quarters being plastered with dung and no attempt being made to groom them.

In each case the Sanitary Committee called the owner's attention to this fact and demanded that the cows be kept in a more cleanly condition.

Two applications for registration as purveyors of milk have been made during the year. In each case the premises were inspected and found to be satisfactory, and the applications were granted.

One business has been discontinued and struck off the register, and one business has been transferred.

I found it necessary to report to the Sanitary Committee that the supply of water to one cowshed was unsatisfactory and insufficient, being drawn from a surface well sunk in an arable field and situate in close proximity to a stream polluted with sewage.

A sample of the water drawn from the well was, by order of the Sanitary Committee, submitted to an analyst, who reported that the water was totally unfit for drinking purposes.

Notice under the Regulations dealing with Cow-sheds was immediately served upon the occupier to close the well and provide the shed with a sufficient supply of water from an uncontaminated source.

The well was at once closed and a satisfactory water supply is at the present time being laid on to the sheds. In the meantime water drawn from the town's mains is conveyed for use in the shed in a properly constructed water cart.

SUMMARY OF WORK OF DEPARTMENT.

Number of Houses and Premises Inspected	...	...	274
„ Visits to Works in progress	...	...	1,385
„ „ Bake-houses	...	...	34
„ „ Slaughter-houses	...	...	28
„ „ Dairies, Cow-sheds and Milk-shops			56
„ „ Workshops	...	...	15
„ „ Schools	...	...	2
„ „ <i>re</i> cases of Infectious Disease...			121
„ Miscellaneous Inspections	...	...	404
„ Drains examined under Section 41 of the Public Health Act, 1875	...	...	41
„ Drains tested with Water	...	...	90
„ „ „ „ Smoke	...	...	64
„ Complaints received and attended to			97
„ Preliminary notices served	...	...	114
„ Legal notices served	...	...	143
„ Letters written on the business of the department	...	...	717
„ Houses and premises disinfected	...	...	60
„ Plans of houses re-drained prepared			40

I am, Sir,

Yours obediently,

W. NESFIELD, ASSOC. R. SAN. INST

Sanitary Inspector.

Table I.—Vital Statistics of Whole District during 1906 and previous Years.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.				TOTAL DEATHS IN PUBLIC INSTITU- TIONS IN THE DISTRICT.	Deaths of Non- residents registered in Public Institu- tions in the District.	Deaths of Residents registered in Public Institu- tions beyond the District.	NETT DEATHS AT ALL AGES BELONGING TO THE DISTRICT.	
		Number.	Rate.*	Under 1 Year of Age		At all Ages.					Number.	Rate.*
				Number.	Rate per 1000 Births registered.	Number.	Rate.*					
1	2	3	4	5	6	7	8	9	10	11	12	13
1896	13,596	281	20·66	27	96·08	164	11·98	24	16	9	157	11·5
1897	13,880	291	20·96	37	127·1	143	10·3	9	6	1	138	9·9
1898	14,164	311	21·95	40	128·6	179	12·56	15	10	5	174	12·2
1899	14,458	296	20·47	23	77·7	164	11·34	17	8	7	163	11·2
1900	14,732	295	20·02	29	98·3	168	11·4	14	5	13	176	11·9
1901	15,017	324	21·57	24	74·07	152	10·12	19	9	15	158	10·52
1902	15,386	288	18·7	34	118·0	157	10·2	13	5	17	169	10·9
1903	15,703	351	22·3	36	102·5	149	9·4	11	5	19	163	10·3
1904	16,460	347	21·0	41	118·1	178	10·8	20	7	24	195	11·8
1905	16,916	321	18·9	18	56·07	134	7·9	15	10	18	142	8·4
Averages for years 1896- 1905.	15,031	310·5	20·65	30·9	99·65	158·8	10·6	15·7	8·1	12·8	163·5	10·86
1906.	17,367	356	20·4	36	101·0	135	7·7	13	4	22	153	8·8

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

The "Public Institutions" to be taken into account for the purposes of these Tables are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses, and lunatic asylums. A list of the Institutions in respect of the deaths in which corrections have been made should be given on the back of this Table.

Total population at all ages 15,017 } At Census
 Number of inhabited houses 2,874 } of 1901.
 Average number of persons per house ... 5·225 }
 Area of District in acres (exclusive of area covered by water), 3,026.

I.	II.	III.
Institutions within the District receiving sick and infirm persons from outside the District.	Institutions outside the District receiving sick and infirm persons from the District.	Other Institutions, the deaths in which have been distributed among the several localities in the District.
<p>Surbiton Cottage Hospital.</p> <p>Isolation Hospital.</p>	<p>Brookwood Asylum.</p> <p>Union Infirmary, Kingston.</p>	<p>Royal Surrey County Hospital.</p>

Is the Union Workhouse within the District? No.

TABLE II.—Vital Statistics of Separate Localities in 1906 and previous Years.

YEAR.		NAMES OF LOCALITIES.															
		SURBITON.				TOLWORTH.				HOOK & SOUTHBORO'.							
		Population esti- mated to middle of each Year	Births Registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each Year.	Births Registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each Year.	Births Registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each Year.	Births Registered.	Deaths at all Ages.	Deaths under 1 year.
1896	...	10,560	199	123	19	1,718	51	15	3	1,314	31	17	2				
1897	...	10,663	209	109	30	1,866	46	14	4	1,348	36	11	3				
1898	...	10,766	214	138	41	2,014	67	19	5	1,382	30	17	4				
1899	...	10,869	185	119	15	2,162	71	20	8	1,416	40	22	1				
1900	...	10,972	191	129	18	2,310	68	23	7	1,450	36	11	4				
1901	...	11,075	195	117	12	2,458	94	30	10	1,484	35	11	2				
1902	...	11,214	158	128	21	2,643	104	35	13	1,529	26	6	0				
1903	...	11,339	182	123	22	2,798	126	30	9	1,566	43	10	5				
1904	...	11,557	181	129	22	3,280	124	48	15	1,623	42	18	4				
1905	...	11,665	157	104	10	3,556	131	30	7	1,695	38	8	1				
Aves. of yrs. 1896 to 1905		11,068	187.1	121.9	21	2,480	88.2	26.4	8.1	1,481	35.7	13.1	2.6				
1906	...	11,787	172	94	14	3,804	138	44	17	1,776	46	15	5				

**TABLE III.—Cases of Infectious Disease Notified during the Year 1906
in the Surbiton Urban Sanitary District.**

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							Total Cases Notified in each Locality.				No. of Cases Removed to Hospital from each Locality.			
	At all Ages.	At Ages—Years.						Sur- biton	Tol- w'rth	Hook & S'th- boro'.		Sur- biton	Tol- worth	Hook & S'th boro'.	
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards								
Small-pox ...															
Cholera ...															
Diphtheria ...	7	..	1	4	2	...	...	6	1	...		6	1	...	
Membranous Croup															
Erysipelas ...	9		...	1	...	6	2	5	2	2		...	...	...
Scarlet Fever ..	41		11	21	6	3	...	19	16	6		15	15	6	
Typhus Fever ..															
Enteric Fever ..	2		...	...	1	1	...	2	...	...		2	...	...
Relapsing Fever															
Continued Fever															
Puerperal Fever															
Plague ...															
Totals ...	59	...	12	26	9	10	2	32	19	8		23	16	6	

TABLE IV.
Causes of, and Ages at, Death during Year 1906.

CAUSES OF DEATH.	DEATHS IN WHOLE DISTRICTS AT SUBJOINED AGES.							DEATHS IN LOCALITIES (AT ALL AGES).			DEATHS IN PUBLIC INSTITUTIONS.
	All ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 & under 25.	25 & under 65.	65 & upwards.	Surbiton.	Tolworth.	Hook & S'thbro'	
Small-pox											
Measles	2	2	...	...	...	...	...	...	1	1	
Scarlet fever	1	...	...	1	...	...	...	1	...	...	1
Whooping-cough	4	1	3	...	...	...	...	...	4	...	
Diphtheria and membranous croup	1	...	...	1	...	...	...	...	1	...	1
Croup											
Fever :—											
Typhus											
Enteric	1	...	...	...	1	...	...	1	...	...	1
Other continued											
Epidemic influenza	1	...	...	...	...	...	1	1	...	...
Cholera											
Plague											
Diarrhœa	9	6	2	...	1	...	...	6	2	1	
Enteritis	9	9	...	...	...	...	...	4	5	...	1
Puerperal fever											
Erysipelas	1	1	...	...	...	...	...	...	1	...	
Other septic diseases											
Phthisis (Pulmonary Tuberculosis)	7	...	...	1	1	4	1	3	3	1	1
Other tubercular diseases	3	1	1	...	1	...	...	...	2	1	
Cancer, malignant disease	10	...	...	...	...	4	6	10	...	...	1
Bronchitis	10	3	1	...	...	...	6	4	5	1	
Pneumonia	10	1	1	...	...	3	5	8	1	1	1
Pleurisy	1	...	...	...	...	1	...	...	1	...	
Other diseases of Respiratory organs	2	1	...	...	...	...	1	1	1	...	
Alcoholism : Cirrhosis of liver											
Venereal diseases											
Premature birth	6	6	...	...	...	...	...	2	3	1	
Diseases and accidents of parturition	1	...	...	...	...	1	...	...	1	...	
Heart diseases	23	...	...	1	1	10	11	16	4	3	
Accidents	3	1	...	...	1	1	...	3	...	...	2
Suicides	2	...	...	...	...	2	...	1	1	...	
All other causes	46	4	2	1	...	12	27	33	8	5	4
All causes... ..	153	36	10	5	6	38	58	94	44	15	13

Table V.—Surbiton Urban District. INFANTILE MORTALITY DURING THE YEAR 1906.
Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under One Year.
All Causes : Certified	8	1	1		10	5	3	6	1	1	3		1		3	3	36
Uncertified																	
Common Infectious Diseases :																	
Small-pox																	
Chicken-pox																	
Measles								1							1		2
Scarlet Fever																	
Diphtheria : Croup																	
Whooping Cough																1	1
Diarrhoeal Diseases :																	
Diarrhoea, all Forms			1		1		2	1			1		1				6
Enteritis, Muco - enteritis, Gastro - enteritis						1	1	3		1	1				1	1	9
Gastritis, Gastro-intestinal Catarrh...																	
Wasting Diseases :																	
Premature Birth	6				6												6
Congenital Defects																	
Injury at Birth... ..	1				1												1
Want of Breast-milk, Starvation																	
Atrophy, Debility, Marasmus... ..	1				1	1		1									3
Tuberculous Diseases :																	
Tuberculous Meningitis																	
Tuberculous Peritonitis																	
Tabes Mesenterica																	
Other Tuberculous Diseases									1								1
Erysipelas						1											1
Syphilis																	
Rickets																	
Meningitis (<i>not Tuberculous</i>)																	
Convulsions		1			1												1
Bronchitis						1					1				1		3
Laryngitis						1											1
Pneumonia																1	1
Suffocation (overlying)																	
Other Causes... ..																	
	8	1	1		10	5	3	6	1	1	3		1		3	3	36

District (or sub-division) of Surbiton.

Births in the year { Legitimate, 350.
Illegitimate, 6.

Population, estimated to middle of 1906, 17,367.
Deaths from all Causes at all Ages, 153.



FACTORY AND WORKSHOP ACT, 1901.

Factories, Workshops, Laundries, Workplaces & Homework.

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises. (1)	Number of		
	Inspections. (2)	Written Notices. (3)	Prosecutions. (4)
FACTORIES (Including Factory Laundries)	49	1	Nil.
WORKSHOPS (Including Workshop Laundries)... ..			
WORKPLACES (Other than Outworkers' premises included in Part III. of this Report			
Total			

2.—DEFECTS FOUND.

Particulars. (1)	Number of Defects			Number of Prosecu- tions. (5)
	Found. (2)	Remedied. (3)	Referred to H.M. Inspect'r (4)	
<i>Nuisances under the Public Health Acts :—*</i>				
Want of cleanliness	1	1	—	—
Want of ventilation	1	1	—	—
Overcrowding				
Want of drainage of floors	1	1	—	—
Other Nuisances				
Sanitary accommodation—†				
Insufficient	1	1	—	—
Unsuitable or defective	2	2	—	—
Not separate for sexes				
<i>Offences under the Factory and Workshop Act :—</i>				
Illegal occupation of Underground Bake- house (s. 101)				
Breach of special sanitary requirements for Bakehouses (ss. 97 to 100)				
Other Offences (Excluding offences rela- ting to outwork which are included in Part III. of this Report)				
Total	6	6	Nil.	Nil.

* Including those specified in sections 2, 3, 7 and 8, of the Factory and Workshop Act as remediable under the Public Health Acts.

† For districts not in London, state here whether section 22 of the Public Health Acts Amendment Act, 1890, has been adopted by the District Council; and if so what standard of sufficiency and suitability of sanitary accommodation for persons employed in factories and workshops has been enforced.

3.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the Year.	Number.
(1)	(2)
Important Classes of Workshops, such as Workshops, Bakehouses, may be enumerated here.	<div> <div> Bakehouses 14 Dressmakers 30 Bootmakers 28 Laundries 21 Tailors 13 Milliners 13 Other Trades 65 </div> </div>
Total number of workshops on Register ...	184

4.—OTHER MATTERS.

Class.	Number.
(1)	(2)
MATTERS NOTIFIED TO H.M. INSPECTOR OF FACTORIES:—	
Failure to affix Abstract of the Factory and Workshop Act (s. 133)	
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5)	<div> <div>Notified by H.M. Inspector ...</div> <div>Reports (of action taken) sent to H.M. Inspector.</div> </div>
Other	
UNDERGROUND BAKEHOUSES (s. 101) :—	
Certificates granted during the year	Nil.
In use at the end of the year	1