

# **Report of the Medical Officer of Health for the half-year ending December, 1895.**

## **Contributors**

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Bond, William Arthur.

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BOARD OF WORKS,  
HOLBORN DISTRICT.

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METROPOLIS LOCAL MANAGEMENT ACT,  
AND  
PUBLIC HEALTH (LONDON) ACT.

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Report  
OF THE  
MEDICAL OFFICER OF HEALTH,  
For the Half-Year ending December, 1895.

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LONDON:  
PRINTED BY ORDER OF THE BOARD.

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1896.

# BOARD OF WORKS

REPORT

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REPORT

# Board of Works—Holborn District.

Holborn Town Hall,

Gray's Inn Road, W.C.,

28<sup>th</sup> Feb 1896

Sir,

I beg to acknowledge the receipt of  
your communications of the 17<sup>th</sup> inst.,  
which shall have my early attention, I shall be  
glad to let you have the Reports  
Every year. Also for St. Claves.  
I am, Sir,

Your obedient Servant,

W. A. BOND, M.D.,

Medical Officer of Health to the Board.

I - - - St. Claves Board

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Brit. Med. Ass<sup>y</sup>

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The Librarian

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# Board of Works—Holborn District.

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*Offices, Holborn Town Hall,*

*Gray's Inn Road, W.C.,*

*With the Medical Officer of Health's*

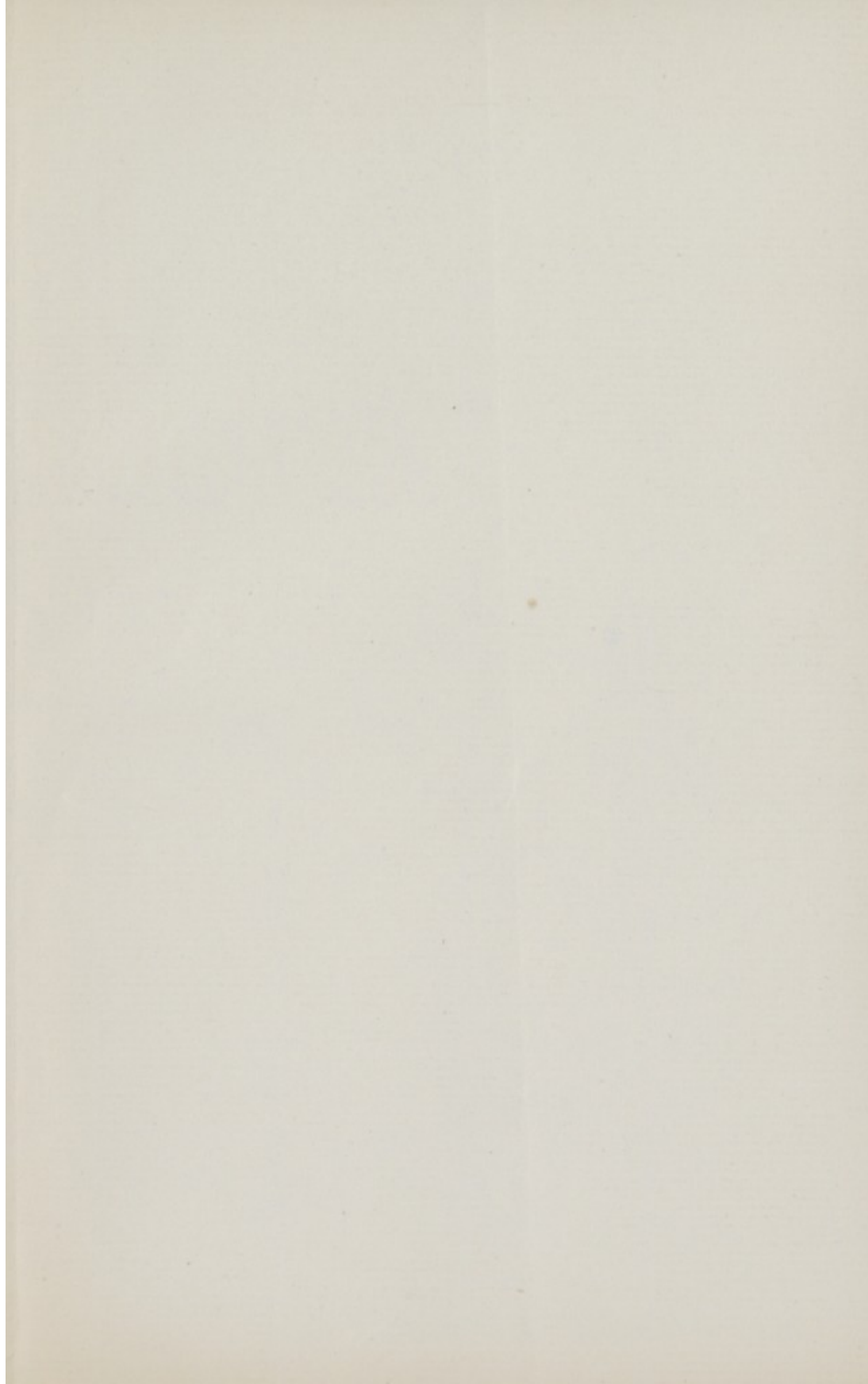
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Journal of the American Medical Association

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# REPORT

ON THE

SANITARY CONDITION OF THE HOLBORN DISTRICT,

FOR THE

*Six Months ending December 31st, 1895,*

BY

WILLIAM ARTHUR BOND, M.A., M.D.,

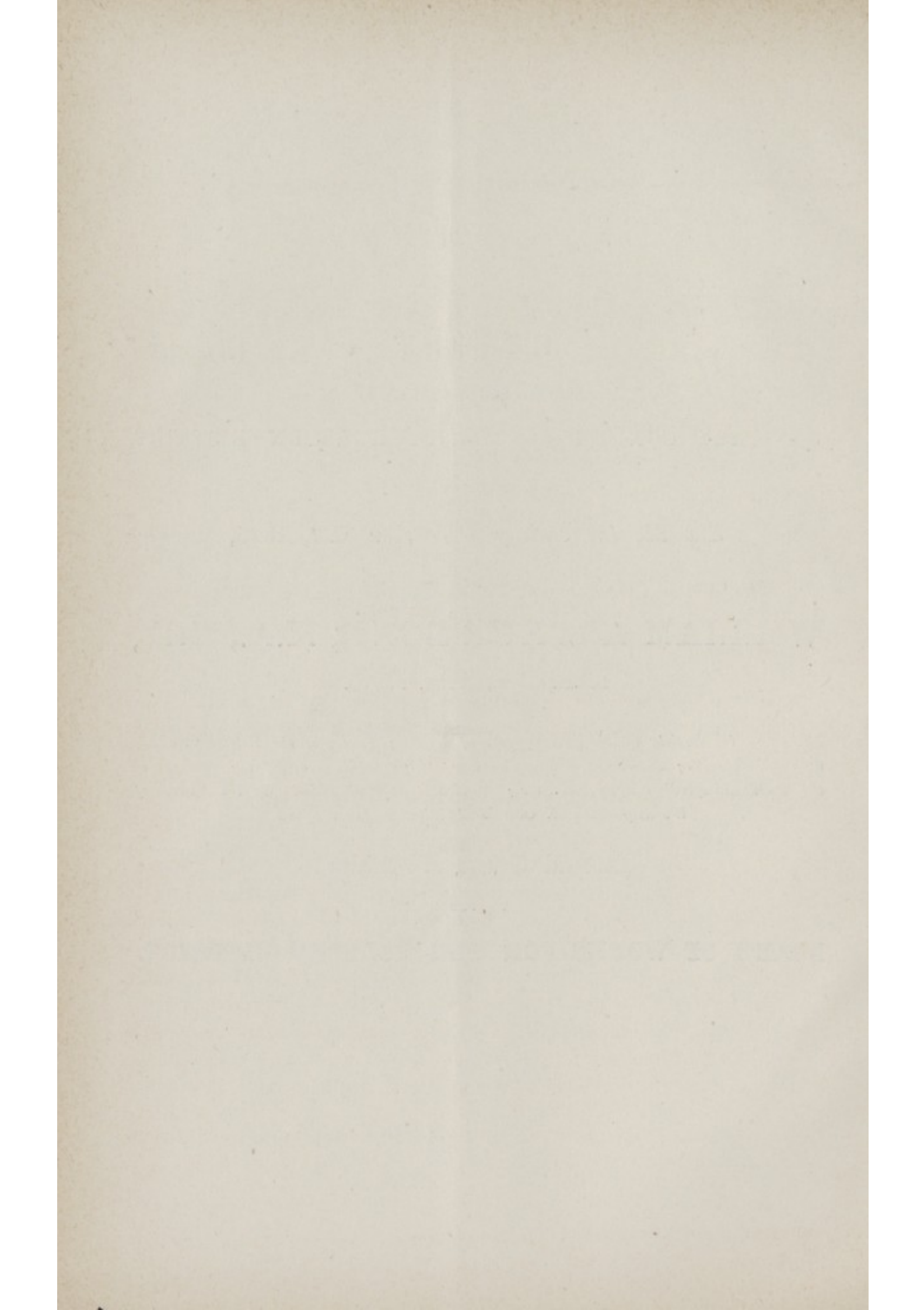
D.P.H.CAMB., M.R.C.P.LOND.

*Fellow of the Society of Medical Officers of Health; Fellow of the British Institute of Public Health; Member and Demonstrator of the Sanitary Institute; Member of the Epidemiological Society, &c., &c.; Medical Officer of Health to the Board of Works for the St. Olave's District, Southwark, and*

Medical Officer of Health

TO THE

BOARD OF WORKS FOR THE HOLBORN DISTRICT.



# REPORT

RELATING TO

## THE SANITARY CONDITION OF THE HOLBORN DISTRICT, LONDON.

*FOR THE YEAR 1895.*

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TO THE BOARD OF WORKS FOR THE HOLBORN  
DISTRICT.

GENTLEMEN,

I have the honour to submit my report for the six months ending December 31st, 1895. I also add statistics for the year as usually given.

### AREA, POPULATION, HOUSES.

The area of the District is 168 acres.

The population according to the census of 1891 was 33,485; at the census of 1881 it was 36,177. These figures, however, include the whole population of Glasshouse Yard, a part of which is under the jurisdiction of the Commissioners of Sewers. At the Registrar-General's Office, Somerset House, I was able to obtain the separate population at the census of 1891, which was the following:—Under the Holborn District Board, 708; under the City Commissioners of Sewers, 71; total 779. The corresponding figures of the 1881 census were not available, except the total 931.

The population for 1895, estimated in the usual way to the middle of the year, is 32,338.

The number of inhabited houses in the District at the census of 1891 was 3437. In 1881 the number was 3244.

The following Table gives further details.

PARISH.	POPULATION.		AREA IN ACRES.	INHABITED HOUSES.	
	1881.	1891.		1881.	1891.
St. Andrew and St. George ... ..	28,874	26,228	111	2,423	2,573
Saffron Hill, Hatton Garden, Ely Rents...	3,980	4,506	32	453	605
St. Sepulchre ... ..	2,392	1,972	19	275	190
Glasshouse Yard (St. Botolph, Aldersgate, part) ... ..	931	779*	6	93	69
Total ...	36,177	33,485	168	3,244	3,437

\* 71 of the population of Glasshouse Yard are under the City Commissioners of Sewers.

Just half the population (49·8 per cent.), at the census of 1891, occupied tenements of only one or two rooms.

Holborn is one of the black spots on the "Over-crowding" map of London; 38·1 per cent. of the population live more than two to a room (see Table I.)

For registration purposes the "Holborn" of the Registrar-General is not the same as that under the jurisdiction of the Board of Works.

The former includes Lincoln's, Gray's, Staple, and Furnival's Inns, and excludes the Liberty of Glasshouse Yard.

There are many anomalies with regard to parts of "Holborn."

Glasshouse Yard, which is now included in the civil parish of St. Botolph without Aldersgate, is, for Poor Law purposes, included with that parish in the City of London Union, and for electoral purposes in the East Finsbury division, and for Local Government purposes is under the jurisdiction of the Holborn District Board for the greater part, and under the City Commissioners of Sewers for the rest.

The greater part of the Liberty of Saffron Hill, Hatton Garden, and Ely

Rents, is under the jurisdiction of the Holborn District Board ; a small portion of the Liberty, however (being part of Ely Place), is under the jurisdiction of the City Commissioners of Sewers for Local Government purposes, although it is included with the remainder of the Liberty in the Holborn Union for Poor Law purposes, and in the Holborn Division of Finsbury for electoral purposes.

Staple Inn and Furnival's Inn, and the Liberty of the Charterhouse are wholly in the Holborn Union for Poor Law purposes, and are with Gray's Inn and Lincoln's Inn (which are in no Union) included in Schedule C of the "Metropolis Management Act of 1855" for Local Government purposes. A small portion of Staple Inn and a portion of Furnival's Inn are, however, in the City of London, and are included in the City for electoral purposes.

### VITAL STATISTICS.

In order to give these I must deal with the "Holborn" of the Registrar-General, which differs from that of this District Board, as just mentioned. The population of Registration Holborn was 33,264 at the census of 1891, and 35,944 at the census of 1881, and the population, estimated in the usual way to the middle of 1895, was 32,186.

The birth and death rates for 1895 are calculated from this estimated population.

#### BIRTHS.

The total number of births registered for the last half year was 397, giving a birth-rate of 24·7 ; and for the whole year the number was 821, or a birth-rate of 25·6 per 1000. The corresponding rate for the whole of Registration London was 30·5.

#### DEATHS.

The total number of deaths of persons in the district, after making the usual corrections (*i.e.* excluding those of persons who died in public institutions, who did not belong to the district, and including those of persons who belong to the district, but died in public institutions outside the district), was 393 ; and the total number for the whole year was 810, giving a death rate of 25·2 per thousand. The corresponding rate for London was 19·4.

If correction be made for age and sex distribution, the death-rate of Holborn was 27·4 per 1000. The rate for England and Wales was 18·7.

I cannot give you the table of deaths, classified according to diseases, ages, and localities, as required by the Local Government Board, because it was not till the beginning of the present year that I obtained the sanction of the Board to have the returns from the Registrars.

## DEATHS OF CHILDREN UNDER ONE YEAR OF AGE.

There were 174 deaths of children under one year of age ; that is, the number of deaths of children under one year of age to 1000 births was 212. The corresponding rate for London was only 165 per 1000 births.

## GLASSHOUSE YARD.

During the last six months of the year there were registered 5 births and 2 deaths, one a child aged six months, the other an old lady of seventy ; and during the year 6 births and 4 deaths.

## CAUSES OF DEATH.

The following table shows, in a summary form, the amount of life in the whole of London saved, and the amount lost in the year, compared with the mean annual mortality of the preceding ten years, under each of the more important causes.

London :—Diminution or excess of deaths in 1895 compared with the average annual deaths in 1885-94, corrected for increase of population :—

Cause of Death.						Diminution in 1895.	Excess in 1895.
Small-pox ...	...	...	...	...	...	134	—
Measles ...	...	...	...	...	...	112	—
Scarlet Fever ...	...	...	...	...	...	228	—
Typhus ...	...	...	...	...	...	8	—
Influenza ...	...	...	...	...	...	—	1361
Whooping Cough ...	...	...	...	...	...	1259	—
Diphtheria ...	...	...	...	...	...	—	611
Simple Fever ..	...	...	...	...	...	33	—
Enteric Fever ...	...	...	...	...	...	13	—
Diarrhoeal Diseases ...	...	...	...	...	...	—	615
Cancer ...	...	...	...	...	...	—	391
Phthisis and other Tubercular Diseases ...	...	...	...	...	...	660	—
Premature Birth ...	...	...	...	...	...	—	241
Diseases of Nervous System ...	...	...	...	...	...	1080	—
Diseases of Circulatory System ...	...	...	...	...	...	44	—
Diseases of Respiratory System ...	...	...	...	...	...	790	—
Diseases of Urinary System ...	...	...	...	...	...	17	—
Childbirth and Puerperal Fever ...	...	...	...	...	...	111	—
Accident ...	...	...	...	...	...	—	126
Homicide... ..	...	...	...	...	...	—	—
Suicide ...	...	...	...	...	...	—	54
All other Causes ...	...	...	...	...	...	173	—
Total ..						4662	3399
Balance of Diminution or Excess ...						1263	—

The net gain in life saved during the year was represented by 1263 lives. In other words, had the average death rate of 1885-1894 prevailed throughout 1895, 1263 lives would have been sacrificed in addition to those which were actually lost by death. Notwithstanding this life-saving, however, the table shows excessive mortality under headings which have shown considerable excess for many successive years past. Thus, for example, there was an excess of 1361 deaths attributed to influenza, 611 to diphtheria, 391 to cancer, and 241 to premature birth. In addition to these, there was also in 1895, an excess under the heads of accident and suicide, as compared with the corrected averages.

### ZYMOTIC DISEASES.

During the half year, the number of deaths from the principal zymotic diseases was 63, the rate being 3·9 per 1000. The corresponding rate for London was 3·5. For the whole year the number was 90, and the rates 2·8 and 2·6 respectively.

Of these, measles caused the same number of deaths as all the others put together, viz., 45 (the number being for the whole year) :—

Measles ... ..	45
Small-pox ... ..	0
Scarlet Fever ... ..	6
Diphtheria... ..	7
Whooping Cough... ..	8
Typhoid Fever ... ..	0
Diarrhœa ... ..	24

### PHTHISIS OR CONSUMPTION.

The number of deaths from phthisis during the year was 98 (last half year, 49), which is equivalent to a death-rate of 3 per 1000. The corresponding rate for London was 1·77 per 1000.

Phthisis, tuberculosis of the lungs, "consumption," or "decline," as it is popularly called, is caused by the tubercle bacillus, a microscopic organism.

Many other diseases are caused by this bacillus, and are included amongst tubercular diseases, such as consumption of the bowels, or *tabes mesenterica*, which is very frequent in children; diseases of the brain, as tubercular meningitis; tubercular diseases of glands, bones, and joints, which frequently cause abscesses and deformities.

Hygienic conditions have such an enormous influence in the reduction of these tubercular diseases, that the death-rate from phthisis affords a rough test of the extent to which insanitary conditions prevail.

For the prevention of consumption and allied diseases, it is necessary that there should be good ventilation of houses and workshops, and their sanitary construction and arrangement, so as to secure fresh air, good light, and dry walls; no overcrowding; proper drainage of the soil; inspection of cowsheds, dairies, and cows, so as to ensure good milk, free from the germs of tuberculosis; inspection of animals intended for food, and adequate supervision of them at the time of slaughter; disinfection of the sputum of phthisical patients, and infected articles and rooms.

### INFLUENZA.

The deaths referred to influenza were 18 in number, being rather more than the same rate for London, in which there were 2156 deaths, 1570 of which were registered between the middle of February and the end of March.

### THE NOTIFICATION AND PREVENTION OF INFECTIOUS DISEASE.

During the six months ending December 28th, 1895, there were notified 213 cases of infectious disease: the corresponding number for 1894 being only 98. This large increase was caused principally by the epidemic of scarlet fever, which occurred during August, September, October, and November, there being nearly eight times the number notified during the corresponding four months of 1894. During the same four months the number of notifications of diphtheria was more than three times that of 1894.

The numbers of the separate diseases were:—

						Last half-year.	1895.
Small-pox	...	...	...	...	...	10	31
Scarlet Fever	...	...	...	...	...	116	158
Diphtheria and Membranous Croup	...	...	...	...	...	36	64
Puerperal Fever	...	...	...	...	...	—	1
Typhoid or Enteric Fever	...	...	...	...	...	13	20
Erysipelas	...	...	...	...	...	38	59
Total					...	213	333

And in Registration London :—

Small-pox	...	...	...	...	...	1,076
Scarlet Fever	...	...	...	...	...	20,654
Diphtheria	...	...	...	...	...	11,426
Membranous Croup	...	...	...	...	...	461
Enteric Fever	...	...	...	...	...	3,710
Typhus	..	...	...	...	...	15
Other continued Fevers	...	...	...	...	...	107
Puerperal Fever	...	...	...	...	...	249
Erysipelas	...	...	...	...	...	5,994
						<hr/>
						43,692
						<hr/>

### SMALL-POX.

During the half-year there were 10 cases notified. My attention was also called to several doubtful cases, which in my opinion were chicken pox ; the subsequent course of the illnesses confirmed this.

I vaccinated and re-vaccinated all the inmates of the tenements that I could persuade to be done. Printed cards giving the hours and places of attendance of the Public Vaccinators were distributed.

The address given of two of the cases was the Salvation Army Shelter, Charles Street. Vaccination notices were put up, and the Shelter disinfected on both occasions.

The ventilation of the ground floor, at my request, has been improved, but a further notice has been served as it is still unsatisfactory (one case of scarlet fever and one of typhoid were also notified from this Shelter). Details of all the cases were reported to your Sanitary Committee, and to the Local Government Board.

The statistics of all epidemics of small-pox show the enormous value of efficient vaccination and re-vaccination ; notwithstanding this, the proportion of children that are not vaccinated has been increasing year by year since 1881, both in the Metropolis and the rest of England. In 1881, the proportion of children unaccounted for in regard to vaccination (including cases postponed) in the Metropolitan Unions was only 5·7 per cent. of the total births. In 1891 this proportion had risen to 16·4 per cent., and is still rising.

In the Holborn Union the corresponding rates were 6·2 and 12·7, and in 1893 had risen to 14·2 per cent.

As further evidence of the value of vaccination, I have made an analysis of the 676 cases of small-pox that were received during the six months ending December 29th, 1895, at the Hospital Ships of the Metropolitan Asylums Board.

Of these 676 there were 113 under 10 years of age, and 68, 10 years old and under 15. Of the 113 under 10 years of age, 104 were *not* vaccinated, 7 were vaccinated, 2 no history as to vaccination. Of the 68, 10 years old and under 15, 36 were *not* vaccinated, 31 were vaccinated, 1 no history as to vaccination. (Those cases that were unvaccinated at the time when the disease was contracted, but were vaccinated after this, during what is called the incubative period, I have, of course, considered as not vaccinated.)

The number of vaccinated children is much greater than the number of the unvaccinated. Ten years ago the proportion of the unvaccinated was less than eight per cent. of the total births. I estimate that the proportion of the unvaccinated under ten years of age in London in 1895, was *less than* 16 per cent., say less than  $\frac{1}{6}$  ( $16\frac{2}{3}$  per cent.), or in other words, there were of children under ten years of age, at least five times as many vaccinated as unvaccinated.

Therefore, even supposing that the two cases with no history in regard to vaccination *had been* vaccinated, and the non-vaccinated had only suffered in the same proportion as the vaccinated, there would have been only two cases of small-pox of those *not* vaccinated under ten years of age instead of 104, which really occurred; and if the vaccinated had suffered in the same proportion as the non-vaccinated, there would have been at least 520 cases of small-pox, instead of the nine which really occurred among the vaccinated, and some of those probably were not efficiently vaccinated. Or in other words, if vaccination had no protective influence there would have been about 60 times as many cases of small-pox amongst the vaccinated, as actually occurred.

Of those ten years and under fifteen years of age in 1895, the proportion of the unvaccinated was less than 7 per cent. or less than one in 14, therefore, if the vaccinated had suffered in the same proportion as the unvaccinated, there would have been at least 468 cases of small-pox amongst adolescents of these ages who were vaccinated, instead of 32 that occurred (considering the case with no history in regard to vaccination as vaccinated), or in other words, about 15 times as many vaccinated adolescents would have had small-pox as actually occurred.

From these statistics the protective power of vaccination amongst adol-

escents has diminished one-fourth after ten years of age, and therefore shows the great importance of re-vaccination after that age. Not one of the 68 cases of ten years and under 15 years was stated to have been re-vaccinated.

Of the many accounts of nurses of Small-pox Hospitals, I have not read of a single case of small-pox occurring amongst those who had been re-vaccinated.

Germany affords practical evidence that small-pox can be stamped out by vaccination and re-vaccination ; for since the year 1874, re-vaccination before leaving school has been compulsory, and during the past ten years small-pox has been almost extinct, being at the rate of only one case per *million* of the inhabitants, and these few cases are those of foreigners, or natives who have not been re-vaccinated.

The Royal Commission on Vaccination is now meeting weekly to draw up its final report, which it is expected will be presented to Parliament before this session closes. It is to be hoped that this will give an increased stimulus to increased vaccination and re-vaccination.

### SCARLET FEVER.

There was an epidemic of scarlet fever during the months of August, September, October, and November, there being nearly eight times the number of the notifications of the corresponding months of 1894. During the same four months there was also three times the number of diphtheria cases compared with 1894.

This very much increased the work of the Sanitary Department, especially as the Hospitals of the Metropolitan Asylums Board were full, both for scarlet fever and diphtheria patients, so that instead of being able to have a case at once removed, I had to carefully examine the urgency of each case, and report the same, day by day, to Norfolk House. I made arrangements for isolation as far as it was possible, but even the most urgent cases, those in tenements of only one room, could not be removed till after many applications. Four and five cases occurred one after the other in the same tenements. Two or three cases in the same tenement was of frequent occurrence.

In several instances a mild case that had not been notified and isolated was the cause of several other cases.

During the six months I have records of three of the so-called "return" cases of scarlet fever, that is, of another case of scarlet fever occurring in a

house soon after the return of a case from one of the Fever Hospitals. In one of these desquamation recurred after the return of the patient. In most of the "return" cases other causes can be assigned. These cases are but a small percentage of the total number of cases discharged from the hospitals.

### DIPHTHERIA.

During the last six months of the year there were notified 36 cases of diphtheria and membranous croup. During the same four months (August to November) that there was an epidemic of scarlet fever, the number of diphtheria cases was also three times the number of the corresponding months of 1894. The Metropolitan Asylums Board Hospitals were also full for diphtheria patients, so that the same difficulties were experienced as for scarlet fever cases.

As it is sometimes difficult or impossible for a medical practitioner to be certain that a case of throat illness is diphtheria or not, I am very glad that your Board has recently given its consent to supply the medical practitioners of the district with tubes, so that they can have a bacteriological examination made of the doubtful cases. This method was begun in New York, in May, 1893, and has been found to work satisfactorily.

Our knowledge of the disease, and of the time when the patient ceases to be a possible source of infection, has thereby been made much more accurate.

The procedure is as follows :—Each medical practitioner is supplied with a "culture outfit," which consists of small box containing two tubes, one of which has some blood serum in it, this being a good medium for the growth of the diphtheria bacillus, the other contains a swab of cotton wool. Both tubes have been sterilized.

On visiting a case suspected to be diphtheria, the swab is applied to the affected part, and then immediately inserted in the other tube, and rubbed over the surface of the blood serum. The tubes are then transmitted to the Medical Officer of Health at the Town Hall, who has them forwarded to the British Institute of Preventive Medicine, for bacteriological examination. The results of this examination are communicated about ten o'clock the next morning.

The medical practitioner probably would not notify any such case unless the bacteriological examination proved it to be diphtheria, and cases that are

not really diphtheritic would not be sent to hospital, nor any further unnecessary preventive measures taken.

A great advance in the treatment of diphtheria has, during the past year, been carried out in the hospitals of the Metropolitan Asylums Board, namely, by the use of antitoxic serum.

The report of the Medical Superintendents of these hospitals has just been issued. The following is their summary of the improved results in the diphtheria cases treated during the year 1895, which are indicated by their statistics and clinical observations:—

- (I) A great reduction in the mortality of cases brought under treatment on the first and second day of illness.
- (II.) The lowering of the combined general mortality to a point below that of any former year.
- (III.) The still more remarkable reduction in the mortality of the laryngeal cases.
- (IV.) The uniform improvements in the results of tracheotomy at each separate hospital.
- (V.) The beneficial effect produced on the clinical course of the disease.

“Certain secondary effects not infrequently arise as a direct result of the injection of antitoxin in the form in which it has at present to be administered, and even assuming that the incidence of the normal complications of diphtheria is greater than can be accounted for by the increased number of recoveries, we have no hesitation in expressing the opinion that those drawbacks are insignificant when taken in conjunction with the lessened fatality which has been associated with the use of this remedy.”

Similar beneficial results have been experienced on the Continent and in New York. In the latter, the returns of deaths given for the first three quarters of 1895 show that there has been the large reduction in the death-rate of 43·9, as compared with the average death-rate for the corresponding periods of the previous four years.

#### TYPHOID FEVER.

There was a reduction in the number of cases of typhoid or enteric fever notified during the year of about 17 per cent., viz., from 24 to 20. During the last six months there were 12 cases as compared with 16 for the corresponding period of 1894.

There was *no* death from this disease during the year, which is most satisfactory. In 1894 there were 7 deaths. In London there were 596 deaths, and in 1894, 610 deaths attributed to this disease.

It has recently been proved by English and French observers, that the urine of patients suffering from typhoid fever nearly always contains the typhoid bacillus (Eberth's bacillus). It is therefore most important that the urine from such patients, as well as the stools, and all articles contaminated by either or both, should be thoroughly disinfected.

From the successful results obtained by M. Chantemesse, of Paris, by the use of anti-typhoid serum, it is probable that this treatment will soon also be introduced into England.

#### MEASLES.

This disease is not usually notified, and it is not so in this district. During the last six months there were 30 deaths, and during the whole year 45 deaths from this disease.

In London there were 2632 deaths from measles, and in 1894, 3292 deaths, so that there is an enormous number of cases of measles every year in London.

Moreover, there are many more deaths from measles than are represented by the above figures ; for I have found, on investigating the history of many children that have been registered as having died of bronchitis, pneumonia, or pleuro-pneumonia, had, not long before death, been suffering with measles ; and often other children in the same house were either ill, or had recently recovered from measles. In many cases a doctor is not in attendance until the child is seriously ill with a serious complication of measles like those mentioned above : the rash, by this time, has probably disappeared, and the mother considers that the child has recovered from measles, and when the child dies the cause of death is certified as due to the complication without any mention of the primary cause.

It is not surprising that there are so many cases as it is a very infectious disease, and, as a rule, not the least attempt is made to prevent its spread, healthy children generally being allowed to be in the same room with the sick and even in the same bed.

Hospitals for those cases that cannot be isolated at home, and for those that cannot receive proper nursing and treatment at home, which is usually the case in crowded one and two-room tenements, are very much required, and would be the means of very much reducing the death rate of this disease. Notification by the head of the family, in the absence of any medical attendant, should be made compulsory.

Last July I reported on this subject as follows :—

*REPORT of the Medical Officer of Health upon the expediency of notifying Measles as a "Dangerous Infectious Disease," etc.*

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In accordance with the desire of the Board, I beg to report to you on the above subject.

At a meeting of the Vestry of St. George the Martyr, Southwark, on June 18th, 1895, Dr. Waldo, the Medical Officer of Health, reported that in his opinion measles should be notified and removable to a hospital.

I will first compare the deaths in London from measles with those from scarlet fever, for which some preventive measures have for some years past been taken.

Last year there were as many as 3292 deaths from measles in London, whereas from scarlet fever there only 964 deaths.

While the deaths from scarlet fever have diminished to less than one-fifth of what they were, on the average, in the ten years 1861-70, viz., from 11·4 per 10,000 inhabitants of London to only 2·2 in 1894, those from measles are gradually increasing, and last year were as many as 7·4 per 10,000. Or to put it in other words, while the number of deaths from measles is increasing, for every 100 deaths from scarlet fever in the years 1861-70, there are now less than 20, or for every death from scarlet fever now there used to be, about thirty years ago, more than 5 deaths; so that last year there was a saving of about 4000 lives, and the prevention of about 80,000 cases of scarlet fever in London alone. This will perhaps help you to realize the enormous amount of illness with its attendant expense, trouble, inconvenience, and damage to life and well-being that has been saved by the preventive measures—becoming gradually more and more perfect—that have been taken in the case of scarlet fever.

There were more deaths in London last year from measles than from any other infectious disease, being 23 per cent. higher than those from diphtheria, which was the next highest.

Amongst *children* the mortality from measles is greater than that from all the notifiable diseases put together.

If measles were notified, all children from infected houses could be

excluded from school, and thus epidemics could be prevented from occurring in schools, and at the same time the necessity for interfering with the work of schools would be reduced to a minimum.

Hospital accommodation should be provided especially for those patients who cannot be properly isolated at home.

The rooms and infected articles could then be disinfected and further spread of the disease arrested.

Disinfection is carried out in those houses in which the existence of measles has come to our knowledge (by the death returns or otherwise), but this generally cannot be done until after the death or convalescence of the children.

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### WHOOPIING COUGH.

This, also, is not notified. It was the cause of 8 deaths. In 1894 there were 22 deaths.

In London there were 1483 deaths from this disease, corresponding to a rate of 0·34 per 1000 living. This is the lowest rate on record, the nearest approach to so low a rate having been 0·41 in 1883, after an epidemic in the previous year, when the rate was as high as 1·21 per 1000 living.

Disinfection is carried out when practicable in those cases that come to our knowledge.

### DIARRHŒA.

This was the cause of 24 deaths in this district. In London it was the cause of 3600 deaths, or at a rate of 0·83 per 1000 living. This rate was 0·15 above the average of the preceding ten years, and was higher than in any year since 1887. There were also 1487 deaths from enteritis.

2655, or 74 per cent. of the deaths from diarrhœa, took place in the third or summer quarter of the year. The great majority of these are hand-fed children under one year of age, living in insanitary dwellings on a polluted soil, which during the hot summer months gets heated to the requisite temperature. It has been found experimentally that there is always a sudden rise in the mortality from diarrhœa when the soil at a depth of four feet from the surface attains the temperature of 56° F.

## DISINFECTION.

During the half-year ending December 28th, 1895,  
202 rooms were fumigated.

141 premises stripped and cleansed.

1523 articles were disinfected by Messrs. Armfield and Sons, viz., the following:—

120 Beds.	17 Bolster cases.
216 Pillows.	39 Mattresses.
151 Blankets.	25 Frocks.
161 Sheets.	29 Bodices.
103 Quilts.	10 Chemises.
114 Pillow cases.	13 Drawers.
56 Palliases.	14 Blouses.
76 Bolsters.	47 Petticoats.
39 Cushions.	22 Jackets.
24 Shirts.	8 Cloaks.
33 Curtains.	9 Overcoats.
11 Table covers.	1 Mackintosh.
32 Skirts.	11 Hats.
14 Pairs of trousers.	3 Bags.
12 Suits of clothes.	7 Window blinds.
19 Vests.	48 Bundles of sundries.
18 Rugs.	
21 Shawls	
	<hr/> 1523 <hr/>

I have several times called the attention of the Sanitary Committee to the impossibility in many tenements, under present arrangements, of disinfecting the inmates and their clothing, and that this lack of complete disinfection often leads to the spread of disease.

An attempt was made in the autumn to obtain the consent of the Commissioners of Sewers of the City of London for the use of their disinfecting apparatus; but this, like that made in the early part of the year with the St. Giles' Board of Works, was unsuccessful.

## TEMPORARY SHELTER OR HOUSE ACCOMMODATION.

Section 60, Sub-section 4 of the "Public Health (London) Act, 1891," enjoins that the Sanitary Authority shall provide, free of charge, temporary shelter or house accommodation for the members of any family in which any

dangerous infectious disease has appeared, who have been compelled to leave their dwellings for the purpose of enabling such dwellings to be disinfected by the Sanitary Authority.

I brought this subject to the notice of your Sanitary Committee, as such accommodation was often wanted in tenements where there had been small-pox, and during the epidemics of scarlet fever and diphtheria.

Several houses were inspected by the Committee, but suitable accommodation in the district, unfortunately, could not be obtained.

Meanwhile the Vestry of Clerkenwell had furnished its shelter at 47, Northampton Road, and supplied sleeping accommodation. The Committee therefore decided to try and make arrangements for the joint use of this shelter. These arrangements were not completed till this year, and the contract came into force March 25th, 1896.

#### REMOVAL OF HOUSE REFUSE.

During the six months ending December 31st, 1895, 805 complaints and notices for the removal of house refuse were received and attended to. During the first six months there were 1309, making 2114 complaints during the year.

I have found that this method is most unsatisfactory, for I have often seen large quantities of offensive refuse that had been accumulating for several weeks. Many of the old dust-bins are very large, and frequently the occupiers will not give notice for the removal of the refuse until the dust-bin is full.

I am glad that the Board has made a new contract, which came into operation on the 25th March, 1896. This provides for the removal of house refuse at least once a week, as the following extracts show :—

“ The men employed by the Contractor shall, once in every week at the  
 “ least, at a reasonable time in the day, visit every street, square, place, court,  
 “ and alley in the district, and call at each and every house or premises in  
 “ the district, including every separate tenement in buildings let in flats, or  
 “ buildings known as artizans' or model dwellings, and take away and secure  
 “ the removal of the house refuse therefrom, and shall cleanse out and empty  
 “ all ashpits, earth-closets, privies, and cesspools (if any), and take away all  
 “ the said house refuse, whether deposited in dust-bins or otherwise, without  
 “ fee or reward ; and the same shall be done before ten o'clock in the fore-  
 “ noon when required by the inhabitants. This part of the contract is to be

“performed in such a manner as is necessary to comply with the provisions  
 “of the Public Health (London) Act, and the Bye-laws of the London  
 “County Council made thereunder, and the Contractor is to indemnify the  
 “said Board from all costs, damages, and expenses which the Board might  
 “be put to in respect of the non-compliance with the provisions of the said  
 “Statutes and Bye-laws.”

“The contents of all public dust-bins, wherever situate, shall be cleared  
 “out and carted away by the Contractor daily, whatever may be the nature of  
 “the contents.”

It is desirable that all the old large house dust-bins, and public dust-bins in courts and alleys, which are a constant source of nuisance, should be demolished, and replaced by sanitary galvanised-iron dust-pails. These can easily be moved and at once emptied by the dustmen, with much less labour and nuisance to the occupier and neighbours.

If the Board would provide additional galvanised-iron dust-pails, so that those containing refuse could be placed without emptying them on the dust-cart, and an empty cleansed one left, all the nuisance to occupiers of houses, and to the public passing the dust-carts in the streets, caused by the present method, would be abolished.

The dust-pails could then be emptied once for all into the Contractor's barges at the wharf, and afterwards cleansed and disinfected before being sent out again.

If this system were adopted, and householders and occupiers co-operated by placing the pails outside their houses on the days for collection, the work of the dustmen would be much facilitated, less men would be needed, and the expense to the ratepayers diminished, and at the same time the constantly recurring sources of nuisance, discomfort, and annoyance would be removed.

### THE MEAT MARKET.

As soon as I began my duties as your Medical Officer, I was requested to report to you what, in my opinion, was the best way of dealing with the question of the alleged sale of diseased meat in your district in the immediate vicinity of, but outside, the Central Meat Market.

Attention had been called to the matter in Parliament, the London County Council, and the Press, and by the City Commissioners of Sewers, so that the unenviable character of the market was notorious.

I felt certain that the only way to satisfy public opinion and the interests of the public health, and to remove this character from your Meat Market, was by having a special Meat Inspector on duty during the business hours of the market.

I was very glad that my report was approved by your Sanitary Committee, but, as you are aware, it was not till after very much discussion at several Board and Committee Meetings that it was finally adopted.

The Meat Inspector, Mr. G. T. Billing, was elected December 16th, 1895, and began his duties on the 1st January, 1896. As this report only deals with the year 1895, I will only say that the necessity for my recommendation has been fully demonstrated, and that the Board is to be congratulated that it selected such an excellent Inspector.

The following was my report to the Board :—

*15th July, 1895.*

"GENTLEMEN—In accordance with the request of the Board, I beg to present the following report on this subject.

"In the first place I may remind the Board that I only began my duties as Medical Officer of Health this day fortnight ; but during this short time I have been endeavouring to the best of my ability to find out the true state of affairs, and arrive at the most satisfactory way of meeting the difficulties involved.

"I have carefully considered the scheme that has been already laid before you, viz., that of Dr. Sedgwick Saunders, the Medical Officer of Health for the City of London, and the remarks thereon of your late acting Medical Officer of Health, Dr. Hoyle.

"The thanks of this Board are due to the Commissioners of Sewers and to Dr. Sedgwick Saunders for their offers of assistance, and I may say that if the Board desires to accept this scheme, I will do all in my power to further the efficient working of it.

"I must, however, say that there are several points about it which I consider unsatisfactory.

"I venture to think that this Board can as efficiently, and at the same time more economically deal with this question, without having its authority divided by going outside the district for assistance.

"Dr. Sedgwick Saunders, in the first paragraph of his report, says :—

'For many years past it has been notorious that enormous quantities

‘of unsound and diseased meat have been sold with impunity by retail butchers and others trading in the immediate vicinity, but outside the Central Meat Market.’

“The truth of this is denied by the Holborn Board, and I think it can be explained by trade jealousies on the part of the ‘Central’ Market, and the loophole afforded by the impossibility of constant and efficient inspection under past and present arrangements.

“I know that this Board has been endeavouring to carry out its duty and prosecute anyone selling or exposing for sale unsound or diseased meat, but it is also a fact that during the past four years, there have not been sufficient grounds to warrant a single prosecution.

“In the interests of the public health, and also to remove the unenviable character from your Meat Market, it is desirable to have a more perfect and efficient inspection.

“The temporary nature of the scheme of the Commissioners of Sewers, the alteration of Inspectors, and their temporary appointment, are, in my opinion, also unsatisfactory.

“I am convinced that all these difficulties could be overcome by having an Inspector engaged for this special purpose under your own authority.

“This Meat Inspector could be constantly on duty during the business hours of the ‘outside’ Meat Market. The other Inspectors would then have more time to carry out their duties under the ‘Public Health (London) Act.’

“Any further details could be discussed and arranged by the Sanitary Committee.

“I am, Gentlemen,

“Your obedient Servant,

“W. A. BOND, M.D., M.O.H.”

## REPORT OF THE ROYAL COMMISSION ON TUBERCULOSIS.

The Royal Commission appointed to enquire into the effect of food derived from tuberculous animals on human health issued its Report in April, 1895.

This Report proves that “the actual amount of tuberculous disease among certain classes of food-animals is so large as to afford to man frequent occasions for contracting tuberculous disease through his food.” It is there-

fore most important that this should be widely known, especially in this district where large quantities of meat are sold.

I will add a few more extracts from the same report.

" We have obtained ample evidence that food derived from tuberculous animals can produce tuberculosis in healthy animals."

" Tuberculous disease is observed most frequently in cattle and in swine. It is found far more frequently in cattle (full grown) than in calves, and with much greater frequency in cows kept in town cow-houses."

" There is always a difficulty in making sure of the absence of tuberculous matter from any part of a carcass that shows evidence of tubercle elsewhere."

" The milk of cows with tuberculosis of the udder possesses a virulence which may be described as extraordinary."

" It should be noted that this affection of the udder is not peculiar to tuberculosis in an advanced stage, but may be found also in mild cases."

" Ordinary processes of cooking applied to meat which has got contaminated on its surface are probably sufficient to destroy the harmful quality. They would not avail to render wholesome any piece of meat that contained tuberculous matter in its deeper parts. In regard to milk we are aware of the preference by English people for drinking cow's milk raw, a practice attended by danger, on account of possible contamination by pathogenic organisms. The boiling of milk, even for a moment, would probably be sufficient to remove the very dangerous quality of tuberculous milk."

And from Professor Brown's further report I may quote :—

" Tuberculous animals might be removed to slaughter-houses reserved for the purpose, in which proper means might be provided for destroying or sterilising meat as might be necessary, without any risk of contaminating the carcasses of healthy animals."

" It was allowed by witnesses for the meat trade that obviously bad meat from tuberculous animals should be destroyed without hesitation"; and they also "admitted the risk of the infection of meat, not only of the tuberculous carcass, but also of other animals in the same slaughter-house by the agency of knives, &c."

These facts show the great importance of precautionary measures by competent supervision of animals before and during slaughtering.

In connection with this I may mention that Professor Joseph Coates, of

Glasgow, a well-known pathologist, states "that of the total deaths under ten years of age amongst the mass of the people about a third are due to tuberculosis," and that the usual seat of the disease at that age points to food as the medium of infection.

In all cases of tuberculosis amongst animals that I have examined the lymphatic glands have been more or less affected with the disease; they are also generally much enlarged. It is therefore important that all Meat Inspectors should have a practical knowledge of the position of these glands as a means of confirming the diagnosis in cases where there has been much "stripping" of the pleura and peritoneum.

These glands are also much affected in other diseases, *e.g.*, swine fever, and puerperal fever after calving, lambing, etc.

### BAKEHOUSES.

All the bakehouses have been inspected by Mr. Bennett and myself. All the sanitary defects have been attended to.

"The Factory and Workshops Act, 1895," which came into force on January 1st, 1896, enacts in Section 27 (3) the new provision that "A place underground shall not be used as a bakehouse unless it is so used at the commencement of this Act . . . ."

### COW-HOUSE AND SLAUGHTER-HOUSES.

The cow-house has been inspected several times, and the licence again renewed by the County Council. It is a portion of the ground floor of the tenements called Union Terrace; the remaining parts of the ground floor are used as stables. The cow-house is in the midst of an insanitary area that I am reporting details of to the Board.

I must also call your attention to the fact that tuberculosis is very frequent in cows kept in town cow-houses, and that the consumption of milk thus contaminated is especially liable to produce tuberculosis in children, men and animals.

The two slaughter-houses, one at the back of 29, Red Lion Street, and the other in the Yorkshire Grey Yard, have been inspected by me, and the licences again renewed by the County Council.

Dairies and milkshops are under the supervision of the London County Council.

## THE MORTUARY.

There were 83 bodies brought into the mortuary from 1st July to December 29th, 1895.

Coroner's inquests were held on 36 of these.

## AGE OF BODIES.

Up to 10 years of Age.	Above 10 years of Age.
41.	42.

## HOUSES CLOSED, DEMOLISHED, RE-BUILT, OR BEING RE-BUILT.

24, Sandland Street; a "Closing Order" was obtained under Public Health (London) Act, 1891.

23 & 25, Sandland Street were closed voluntarily after preliminary "intimation."

7, Sandland Street, corner of Featherstone Buildings is being re-built.

151, Saffron Hill; "Closing Order" obtained and premises since pulled down.

2, Portpool Lane; closed voluntarily.

3-8, Portpool Lane; new warehouses have been built on site of the old houses.

Fullwood's Rents and Castle Court; the houses required for the station of the Central London Electric Railway have been closed and are now being demolished.

Swan Alley and Peter's Lane; cold air stores for meat have been built on the site of the old houses.

New Court; houses demolished.

Leather Lane; Prudential buildings now in course of erection.

63, Leather Lane; being re-built.

## HOUSE-TO-HOUSE INSPECTION.

With the Sanitary Inspectors I have made house-to-house inspection of

the following parts of the district, and in most of them the sanitary defects found have already been attended to :—

White Horse Alley.

Pump Court.

Mitre Court.

Glasshouse Yard.

Dove Court.

Union Terrace.

Leather Lane Buildings.

Evelyn Buildings.

Eyre Street Hill and courts and passages adjacent (Italian colony).

Eagle Street, nine houses 43—51, and other separate houses.

Richbell Place.

Elm Court, 1, 2, 3, 4, and 1A.

Lamb's Conduit Passage.

Also a great many houses where there was infectious disease, or about which complaints were received, have also been inspected, and sanitary defects remedied and nuisances abated under the supervision of the inspectors.

#### SANITARY WORK.

The following is an abstract of nuisances abated and sanitary work accomplished during the half-year ending December 31st, 1895 :—

- 62 Written complaints received attention.
- 1642 Premises inspected and re-inspected.
- 122 Preliminary notices have been served for the abatement of nuisances.
- 32 Statutory notices ditto.
- 184 Houses have been cleansed, repaired, lime-whited, &c.
- 11 Houses have had their overcrowding abated.
- 22 Underground rooms illegally and separately occupied have been closed.
- 141 Premises disinfected and cleansed after infectious disease.
- 54 New drains have been laid.
- 38 Drains repaired, ventilated, etc.
- 3 Cesspools filled up.
- 149 Water-closets reconstructed.
- 56 New water-closets constructed.
- 75 Water-closets cleansed and repaired.
- 26 Water-closets supplied with water.
- 11 Houses supplied with water for domestic purposes, after water being cut off.

- 64 Yards re-paved.
- 70 Dust-bins repaired and provided.
- 28 Accumulations of offensive refuse have been removed.
- 22 Bakehouses inspected and re-inspected.
- 2 Slaughterhouses inspected and re-inspected at various times, and defects remedied.
- 1 Cow-shed ditto.
- 895 Dust complaints received attention.

There are 46 houses registered as "Houses let in lodgings."

Also a considerable amount of sanitary work has been done in the district (such as new buildings, etc.) without notices being served, but done under the supervision of the Inspectors.

### MEAT, UNSOUND FOOD, ETC.

In the course of the half year the Sanitary Inspectors have seized and destroyed as unfit for human food, 31 bodies of beef, 4 sides of beef, 47 quarters of beef, 23 stone of beef, a large quantity of pieces of beef, a large quantity of bullocks' offal, 18 sheep, 400 sheep's heads, 850 sheep's plucks, 1 lamb, 13 pigs, 14 barrels of pigs' kidneys and plucks, 1 barrel of salt pigs' heads, 2 calves, 100 calves' plucks, 4 cases of calves' plucks, 5 quarters of veal, 37 cases of rabbits, 370 pigeons.

Jeremiah Tipple, of Clenchwarton, near King's Lynn, Norfolk, was prosecuted for depositing for the purpose of sale at Messrs. Barnard & King, 92, Cowcross Street, on the 22nd November, 1895, four quarters of beef, diseased, unsound, and unfit for the food of man. He was fined £ 20 and 2s. costs, and in default was sent to prison for two months.

There have been a great many prosecutions this year, and there are many others about to be prosecuted.

### SMOKE INSPECTION.

The Smoke Inspector, Mr. Thomas Madden, reports that there are 56 furnaces and boilers on the register, and that he makes periodical inspection of them to see that they are in proper working order, and consume their own smoke. There are 9 kinds of smoke consumers in the district, which are as follows :—

Ventilated Doors	...	...	...	...	...	7
Martin's Patent	...	...	...	...	...	5
Dr. Annan's Patent	...	...	...	...	...	4
Nicholson's	"	...	...	...	...	4
Caddy's	"	Bars	...	...	...	2
Juke's	"	...	...	...	...	2
Galloway's	"	...	...	...	...	2
Hyde's	"	Revolving Bars	..	...	...	2
Watt's	"	...	...	...	...	1
Total of Smoke Consumers						<hr/> 29 <hr/>

The number of furnaces and boilers without smoke consumers is 27. There has therefore been an increase of one smoke consumer (Hyde's) during the six months.

No notices were served during the time reported on.

A complaint was received of a nuisance caused by smoke and heated noxious gases, emitted from the square chimney of Messrs. Ogden, Smale and Company, Limited, of 31, Great Saffron Hill. He kept the chimney under observation for two weeks and then drew my attention to it. We called on the complainant, and found that the shaft was very low, so that in some directions of the wind, heated noxious gases would be blown into the offices and rooms near the top of the chimney. We afterwards visited the above premises and saw the manager, who promised to lay the complaint before his directors. Their builder informed me that the building regulations would not permit any increase in the height of the present shaft. We therefore consulted the District Surveyor, who has now given his permission for the chimney to be raised with iron tubing stayed with iron rods from the surrounding walls. A notice has been served for this to be done.

Reid's Brewery Company, Limited, Clerkenwell Road, have recently been reconstructing three of their furnaces with three of Galloway's Patent Smoke Consumers, and are building a square chimney to relieve the southern one in Leather Lane. The new chimney will take the smoke of one furnace which used to run into the circular one in Leather Lane.

## FACTORIES, WORKSHOPS, WORKPLACES, LAUNDRIES, BAKEHOUSES.

### FACTORY AND WORKSHOP ACTS.

Another Factory and Workshop Act was added last year to those already in force. All the Factory Acts previous to 1878 were consolidated by

the Act of that year, which is now called the Principal Act. Since 1878 have been passed the Factory and Workshop Acts of 1883, 1891, and 1895, "The Cotton Cloth Factories Act of 1889," "The Shop Hours Act of 1892 and 1895," and "The Truck Amendment Act of 1887.

These Factory and Workshop Acts are very complex, and it is desirable that they should be consolidated and simplified.

The effect of all legislation since 1878 has been to hand over more and more the administration of the sanitary provisions of these Acts to the Sanitary Authorities.

All that now remains under the administration of the Factory Department of the Home Office is the partial supervision of the sanitary provisions in those factories that are factories within the meaning of the Act, for notice of all the sanitary defects and nuisances in factories and workshops that can be remedied by "The Public Health Acts," is sent by the Factory Inspectors to the Sanitary Authority, and it is the duty of the Sanitary Authority by the last Act of 1895, "within one month," to inform the Inspector of the proceedings taken in consequence of the notice.

Future legislation probably will simplify the Acts, and make the Sanitary Authority responsible for the sanitary condition of all workplaces of all kinds.

In the "Factory and Workshop Acts," the word "Factory" means not only any premises or place, whether in the open air or not, wherein steam, water, or other mechanical power is used in aid of the manufacturing process carried on there, but also includes any premises or place in which any of the following occupations are carried on, whether mechanical power is used *or not*, namely :—

Print Works.	Copper Mills.
Bleaching and Dyeing Works.	Iron Mills.
Earthenware Works.	Foundries.
Lucifer Match Works.	Paper Mills.
Percussion Cap Works.	Glass Works.
Cartridge Works.	Tobacco Works.
Paper Staining Works.	Letterpress Printing Works.
Fustian Cutting Works.	Bookbinding Works.
Blast Furnaces for Smelting.	Flax Scutch Mills.

Many of the duties and obligations of the Sanitary Authority in reference to factories, workshops, and workplaces are contained in the "Public Health (London) Act, 1891."

Section 38 is the most comprehensive of all, for by it *every* factory, workshop and workplace shall be provided with suitable and sufficient

accommodation in the way of sanitary convenience, and with proper separate accommodation for each sex (where persons of both sexes are or are intended to be employed or in attendance).

The supervision of the cleanliness and freedom from effluvia from any drain, sanitary convenience, or other nuisance, ventilation, rendering harmless as far as practicable any gases, vapours, dust or other impurities, overcrowding, limewashing, cleansing, and purifying all factories, workshops, and workplaces, are also under the jurisdiction of the Sanitary Authority, with the exception of those factories defined as above by the Factory Acts.

The Medical Officer of Health must give written notice to the Factory Inspector when he becomes aware that any child, young person, or woman is employed in a workshop: a child being a person under fourteen years, a young person, one over fourteen and under eighteen, and a woman any female over eighteen years of age.

**LAUNDRIES.**—The Factory Acts now apply to laundries, and so far as regards sanitary provisions, etc., are the same as workshops, except those in which mechanical power is used, in which case they are considered as factories within the meaning of the Acts.

**BAKEHOUSES**—All the sanitary provisions of those that are workshops (not factories) are enforced by the Sanitary Authority.

By the new Act no new underground bakehouse is now to be opened.

Also by the new Act of 1895, a factory or workshop shall be deemed overcrowded if the air space in any room therein be less than 250 cubic feet per head, and 400 cubic feet during overtime. The Home Secretary has the power to raise this standard as regards particular processes and handicrafts, or during hours in which artificial light otherwise than electric light is used.

Notices specifying the number of persons who may be employed in each room of a factory or workshop must be constantly kept affixed.

Where the conditions of work are dangerous to health or to life or to limb, a Factory Inspector is authorised to prohibit the use of a factory or workshop.

Making, cleansing or repairing wearing apparel in any place or outworker's dwelling where there is any case of scarlet fever or small-pox, is forbidden under penalty of £10.

Written notice of every case of lead, phosphorous, or arsenical poisoning, or anthrax occurring in a factory or workshop, must be sent by the occupier to the Factory Inspector and the certifying Factory Surgeon, and any medical practitioner visiting such a case must notify it to the Chief Inspector of Factories.

Suitable washing conveniences are to be provided in any factory or workshop where lead, arsenic or any other poisonous substance is used.

A reasonable temperature must be maintained in every room of a factory or workshop.

The occupier of every factory and workshop must make an annual return of all persons employed, with their age and sex.

The occupier of a workshop must send to the Factory Inspector a written notice of the name and address of the workshop, and the nature of the work done therein, and this notice must be forthwith forwarded by the Factory Inspector to the Sanitary Authority.

Lists of outworkers have to be sent twice yearly to the Factory Inspector by the occupiers and contractors of the factories and workshops in which the following occupations are carried on :—

The manufacture of articles of wearing apparel.

The manufacture of electro-plate.

Cabinet and furniture making and upholstering work.

The manufacture of files.

The giving out of work for the manufacture of wearing apparel.

It is desirable that these lists should be re-arranged into lists of outworkers living in the separate Sanitary Districts by the Factory Department of the Home Office and sent to the Medical Officers of Health of the respective districts.

Processes in which yellow chromate of lead is used have been added to the list of those previously certified by the Home Secretary to be dangerous to health, and therefore require the adoption of special precautions and regulations.

## LEGAL PROCEEDINGS.

### FOOD AND DRUGS AND MARGARINE ACTS.

Particulars of legal proceedings will be given by the Clerk to the Board in his report ; and the Public Analyst gives you details of analyses under the Food and Drugs and Margarine Acts in his report.

I take this opportunity to thank all the members and officers of the Board for their kindness, courtesy, and active co-operation.

I have the honour to be, Gentlemen,

Your obedient Servant,

W. A. BOND,

*Medical Officer of Health.*

TABLE I.

TENEMENTS of not more than 4 rooms in Holborn Sanitary Area, with details as to Population of each group.

Tenements with	Number of Tenements.	Percentage of all Tenements.	Total Occupants.	Percentage of Population in each group of Tenements.	Average Occupants per room.	Overcrowding.		
						Number of one to four roomed Tenements with more than two Occupants per room.	Number of Occupiers of such Tenements.	Percentage of Population in such Tenements.
1 room	2,593	32.2	6,770	20.2	2.61	1,125	4,501	13.44
2 rooms	2,526	31.4	9,915	29.6	1.96	906	5,600	16.72
3 rooms	1,246	15.5	5,782	17.3	1.55	272	2,197	6.56
4 rooms	476	5.9	2,337	7.0	1.23	45	454	1.36
	6,841	85.0	24,804	74.1		2,348	12,752	38.08

TABLE II.

ANALYSIS of the Vital and Mortal Statistics of the Sanitary District of Holborn and of Registration London after Distribution of Deaths occurring in Public Institutions\* during the Year 1895.

Sanitary Areas.	Estimated Population, Middle of 1895.	Births.	Deaths.	Annual Rate per 1000 Living.			Deaths from Principal Zymotic Diseases.	Small Pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Typhus.	Enteric Fever.	Simple and Undefined Fever.	Diarrhoea.	Phthisis.	Deaths of Children under One Year of Age to 1000 Births.
				Births.	Deaths.	Principal Zymotic Diseases.												
Holborn—1st Quarter	32,188	229	259	28.7	32.1	2.2	17	—	11	1	1	1	—	—	—	3	29	214
Do. —2nd Quarter	Do.	195	158	24.3	19.7	1.2	10	—	4	—	3	2	—	—	—	1	20	108
Do. —3rd Quarter	Do.	204	214	25.4	26.7	4.2	34	—	13	—	1	1	—	—	—	19	23	319
Do. —4th Quarter	Do.	193	179	24.0	22.3	3.6	29	—	17	5	2	4	—	—	—	1	26	207
Do. —Year 1895...	Do.	821	810	25.6	25.2	2.8	90	—	45	6	7	8	—	—	—	24	98	212
Registration London...	4,392,346	133,715	85,158	30.5	19.4	2.6	11,466	55	2,628	829	2,289	1,480	5	596	10	3,574	7,742	165

\* PUBLIC INSTITUTIONS.—Non-Parishioners in Public Institutions within the District are excluded.

Parishioners in Public Institutions without the District are included.

Parishioners in Public Institutions, whether within or without the District, are classified in the respective Sub-Districts of their previous residence.

TABLE III.

STATISTICS referring to the Notification and Treatment of Cases of Infectious Disease occurring during the SIX MONTHS ending 28th December, 1895.

	Small-pox.	Scarlet Fever and Scarlatina.	Diphtheria and Membranous Croup.	Enteric and Typhoid Fever.	Erysipelas.	Typhus Fever.	Puerperal Fever.	Totals.
Total Number of Notifications received ... ..	10	116	36	13	38	—	—	213
Corresponding Weeks, 1894... ..	5	27	17	16	34	—	—	99
Removed to M. A. B. Hospital ... ..	9	74	14	3	—	—	—	100
Treated in Hospital or Infirmary ... ..	1	11	17	9	9	—	—	47
Treated at Home ... ..	—	31	5	1	29	—	—	66
From other Districts ... ..	—	4	2	1	—	—	—	7
Increase + } Decrease — } ... ..	+5	+89	+19	— 3	+ 4	—	—	—

TABLE IV.

INFECTIOUS DISEASES RETURN for 26 weeks, ending 28th December, 1895.

DATE.		2 weeks, 13 July.	2 weeks, 27 July.	2 weeks, 10 Aug.	2 weeks, 24 Aug.	2 weeks, 7 Sept.	2 weeks, 21 Sept.	2 weeks, 5 Oct.	2 weeks, 19 Oct.	2 weeks, 2 Nov.	2 weeks, 16 Nov.	2 weeks, 30 Nov.	2 weeks, 14 Dec.	2 weeks, 28 Dec.	TOTAL, 1895.	TOTAL, 1894.
Small-pox.	1895	3	1	3	1	2	...	...	...	...	...	...	...	...	10	—
	1894	...	2	...	1	1	1	...	1	...	...	...	...	...	—	6
Scarlatina and Scarlet Fever.	1895	1	2	5	9	4	17	13	15	15	15	14	3	3	116	—
	1894	2	3	2	2	1	2	3	2	...	...	2	4	4	—	27
Diphtheria and Membranous Croup.	1895	3	2	6	...	5	6	4	2	2	1	1	2	2	36	—
	1894	1	3	...	1	...	2	...	3	1	1	1	3	2	—	18
Typhoid and Enteric Fever.	1895	...	1	...	2	1	...	1	1	...	4	1	1	1	13	—
	1894	4	1	1	2	1	...	...	...	1	...	2	2	2	—	16
Erysipelas.	1895	3	2	4	2	5	1	3	5	2	2	3	4	1	38	—
	1894	3	1	1	3	2	1	...	4	1	5	2	3	5	—	31

TABLE V.

Cases of Sickness under the care of the District Medical Officers during the 52 weeks ending December, 1895.

Names of the Medical Officers.	Small Pox.	Chicken Pox.	Measles.	Scarlatina.	Whooping Cough.	Diarrhoea.	Continued Fever. (Typhus and Typhoid).	Cholera.	Erysipelas.	Influenza.	Puerperal Fever.	Carbuncle.	Acute Pulmonary Inflammation.			Rheumatic Fever.	Ague.	Dysentery.	Diphtheria.	Delirium Tremens.	Insanity.	Syphilis.	Congenital Syphilis.	Lead Poison.	Other Diseases.	All Diseases.
													Bronchitis and Catarrh.	Pleurisy.	Pneumonia.											
Dr. Gabe     ...     ...	...	...	22	2	69	36	...	...	1	24	...	...	241	5	11	57	...	...	...	...	1	...	...	...	360	829
Mr. Taylor     ...     ...	4	...	7	3	15	26	1	...	3	11	...	...	178	1	3	54	...	...	...	...	4	1	...	...	367	678
Mr. Gahagan     ...     ...	...	..	27	1	8	17	1	...	...	34	...	...	148	14	7	31	...	...	...	1	3	3	...	...	290	585
Total     ...     ...	4	...	56	6	92	79	2	...	4	69	...	...	567	20	21	142	...	...	...	1	8	4	...	...	1017	2092
Corresponding weeks, 1894.	1	2	37	4	63	24	1	...	11	14	1	...	364	8	11	153	...	...	4	...	5	8	...	...	1106	1817

TABLE VI.

1895. MONTHS.	Mean Reading of the Barometer.	TEMPERATURE OF THE AIR.								RAIN.	
		Highest by Day.	Lowest by Night.	Range in Month.	Mean of all Highest.	Mean of all Lowest.	Mean Daily Range.	Mean for the Month.	Departure from Average of 124 Years, 1771-1894.	Number of Days it Fell.	Amount Col- lected.
January ...	in. 29.508	53° 8	20° 3	33° 5	37° 7	29° 5	8° 2	33° 8	-2° 9	19	in. 1.62
February ...	29.910	45.0	6.9	38.1	35.2	22.8	12.4	28.9	-9.9	4	0.22
March ...	29.565	63.0	25.3	37.7	51.1	36.4	14.7	42.8	+1.7	19	1.43
April ...	29.735	67.7	31.4	36.3	57.2	40.7	16.5	47.8	+1.7	12	1.25
May ...	29.907	86.2	37.8	48.4	67.5	45.5	22.0	56.0	+3.5	6	0.45
June...	29.855	84.3	42.2	42.1	74.1	50.0	24.1	61.4	+3.1	8	0.21
July ...	29.710	83.8	49.2	34.6	72.8	54.2	18.6	62.6	+1.0	16	3.89
August ...	29.748	82.2	45.7	36.5	70.3	53.7	19.3	62.2	+1.3	15	2.11
September ...	29.977	87.3	41.2	46.1	75.4	51.3	24.1	62.2	+5.7	5	0.93
October ...	29.671	75.8	27.4	48.4	54.2	39.6	14.6	46.5	-3.0	15	2.69
November ...	29.716	64.0	32.5	31.5	52.6	41.5	11.1	47.3	+4.8	20	2.89
December ...	29.626	56.0	25.5	30.5	44.3	35.6	8.7	40.2	+1.2	19	2.51
Means ...	29.748	70.8	32.1	38.6	57.9	41.7	16.2	49.3	+0.7	158 sum.	19.73 sum.