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Contributors

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Borough of Chatham.

TO THE MAYOR AND CORPORATION OF THE BOROUGH
OF CHATHAM.

GENTLEMEN,—

I have the honour to place before you my Annual Report, dealing with the Sanitary Conditions of your District, the Administrative Work of the Health Department, and the Sickness and Mortality occurring during the year ending December 31st, 1911. This review of the preceding year's work tends to grow in extent and importance, and as the causes of disease are being more and more investigated, so the need for preventive rather than curative measures in the case of many of them has become increasingly evident. Public health administration now embraces many subjects, which, a few years ago, were hardly considered as coming within its scope, and its aim is first of all the discovery of the causes which bring about disease; secondly, the best means of counteracting these causes by removing them, or if that is not possible, by mitigating their influence. Much ignorance and prejudice exists amongst the public in respect of many matters vital to their health, and to dissipate this ignorance is the true function of every Health Authority. I do not hesitate to say that the great stumbling block to the efforts of Health Officials lies in the apathy and neglect of the people themselves, and so it comes that in addition to the routine administration, much work of an educative character is required, and much time, patience and tact is called for in order to get people to observe rules, and to carry out measures designed for their benefit, but which they seem reluctant to take advantage of.

With many of them the mere trouble of doing what is right proves too much, and they prefer to put up with conditions which are detrimental to health, and which they could easily remedy for themselves. The efforts of a Sanitary Authority, however comprehensive and well directed, must fall short of their ideal unless they can secure the intelligent co-operation of the individual members of the community, and this co-operation varies with the social and economic circumstances of every district. I regret to state that many of the inhabitants of this town conspicuously neglect their duties and responsibilities in this matter. This is the more remarkable because it coincides with a growing demand for sanitary efficiency on the part of Local Authorities, and any neglect of duties on their part very soon becomes the subject of complaint, and very rightly so, but at the same time it should not

be forgotten that personal observance of the laws of hygiene is necessary both for the private and the public welfare.

The mortality for the year is considerably in excess of 1910, when the death rate was the lowest on record, but this is due not so much to a generally increased average of sickness as to the fact that in the spring of the year there was a very widespread and fatal outbreak of Measles, and that during the hot and dry summer Infantile Diarrhoea caused many deaths.

SUMMARY OF VITAL STATISTICS, 1911.

Area in Acres	4443.298
Population (Census 1911).....	42,250
Births registered	1,114
Birth Rate per 1,000	26.3
Nett Deaths registered	670
Death Rate per 1,000.....	15.8
Zymotic Death Rate	3.5
Phthisis Death Rate	1.5
Infantile Mortality per 1,000 Births	127
Number of Occupied Houses	9,562
Annual Rateable Value	£146,407

A.—NATURAL AND SOCIAL CONDITIONS OF DISTRICT.

The Borough of Chatham is situated on the southern bank of the Medway; it joins the City of Rochester to the north, and to the east it is linked up with the town of Gillingham. Under these circumstances the development of the town can only take place to the south-east and south-west, and of late years a considerable extension has taken place in these directions. The district is hilly in character, with several intersecting valleys, and many of the streets and roads have very steep ascents. Building operations were originally confined to the low lying ground near the river, and to the depressions between the hills, but much of the intervening land is now being utilised for building. The town is on the chalk formation, with a bed of brick earth in the Luton Valley, and a varying depth of overlying soil. There is plenty of open space in the district, and although many of the older houses are irregularly built most of them possess open space in the vicinity. Chatham is a Naval Port and Military Station, and has a very large Dockyard. The bulk of the inhabitants are dockyard employees, besides which there are soldiers and sailors, a considerable number of pensioners, tradespeople, casual labourers, and a fair number of nondescripts, coming under the head of general dealers, hawkers, etc. A large number of females are employed in the manufacture of ready-made clothing, either as factory hands or as outworkers.

POOR LAW RELIEF.

Owing to the fact that the administrative area of the Borough and of the Poor Law Authority is not the same, I am unable to obtain figures as to the amount of Poor Law Relief in Chatham.

In addition to the Poor Law Infirmary, the Military and Naval Hospitals, and the Isolation Hospital the General Hospital is extensively used, and especially as regards the out-patient department, gratuitous medical relief has reached such a pitch as to constitute a grave abuse of the privileges of the Institution.

B.—SANITARY CIRCUMSTANCES OF THE DISTRICT.

WATER SUPPLY.

This is obtained from deep borings in the chalk, having additional headings or adits to increase the supply, and is supplemented by a further boring into the lower green sand. The borings are in the Luton Valley, whence the water is raised by powerful pumps to the storage reservoirs, whose joint capacity is over 9,000,000 gallons. Two of these are situated on the Rainham Road, and one at Bridgewood Gate, on the Maidstone Road. From these reservoirs a constant supply at good pressure is delivered to the consumers. The quantity is abundant, the quality as a beverage is excellent, but for domestic use its hardness is a defect.

There are no shallow wells remaining in the town.

The present consumption of water averages about 16 gallons per head of the population, but with a water carriage system of sewerage this amount would be much increased.

By the courtesy of the Secretary to the Waterworks Company I have been favoured with the most recent analysis (chemical and bacteriological) of their water supply, and the report is of a very satisfactory character. The sample was taken from a house tap in Chatham :—

CHEMICAL ANALYSIS.

Appearance	Clear.
Colour	Pale blue (0.20).
Odour	None.
Reaction	Neutral.
Colour of residue.....	White.
Total solid matter	25.01 grains per gal.
Chlorine	1.872 " "
Equal to Chloride of Sodium ...	3.068 " "
Nitrogen as Nitrates and Nitrites	.254 " "

Nitrogen as Ammonia	·000 grains per gall.
Oxygen required to oxidise organic matter	·000 " "
Degree of hardness	17·37 " "
„ after boiling 15 minutes	3·70 " "
Organic Carbon (·033 parts per 100,000)	·023
Organic Nitrogen (·006 parts per 100,000)	·004

BACTERIOLOGICAL RESULTS.

No. 1	14 microbes per cubic centimetre.
No. 2	6 " "

The samples analysed are of excellent quality. The organic matter in solution is low, the oxygenation is thorough, and the saline constituents are normal.

There is one matter in connection with the water supply, which I have alluded to in a previous report, but which I again feel it is my duty to mention, viz., the necessity for great care in respect to disposal of sewage in the vicinity of the borings. Cess-pools are dug into the porous chalk to a depth of 20 feet, and it is of the highest importance that they should be made watertight so as to preclude the possibility of faecal matter percolating through the soil. One never knows whether there are faults in the chalk allowing ready communication with an underground supply, and besides this a possible danger exists in connection with the process of pumping. Supposing the level of the water to be depressed several feet by pumping, as occurs every day, a vacuum is created causing increased suction and acceleration of percolation from above. I believe the Company to be fully alive to their responsibility in this matter of preserving the purity of their water supply, and, as I have said before, I think the risk is slight and improbable, but in my opinion there is a risk, and I should not view with equanimity the extension of building operations in this area under the present conditions of sewage disposal, unless the precautions I have indicated are rigorously enforced.

RIVER POLLUTION.

There is no question as to the pollution of the River Medway, and a large quantity of excrementitious matter is discharged into the tideway, the worst offenders being the Admiralty and War Departments.

DRAINAGE AND SEWAGE.

According to modern conceptions these are conspicuous by their absence, and although it has taken many years to form

and focus public opinion, there is now a general desire and determination to provide a scheme for the sewerage of the Borough. Everybody knows that the present system of cess-pool storage is indefensible and must be ended. Nuisance occurs, not only from the retention of foul excrement in large privy pits in the vicinity of dwellings, but also during the process of emptying and removal, which is carried on by day and by night. Occasionally, owing to the absence of secondary means of access, the contents of the cesspools have to be brought through the dwellings, and a more disgusting performance cannot well be imagined. Your Council is thoroughly in earnest respecting this question, and are now proceeding with all possible rapidity to bring about a solution of an admittedly difficult problem, and are hopeful of carrying out a scheme in connection with the neighbouring City of Rochester. The interests of the two Boroughs are identical, and to drain one and leave the other would be as foolish as for each to carry out a separate scheme. At all events Chatham is pledged to carry out Main Drainage, whether Rochester joins or not. Geographically the towns are not easy to drain, but the engineering difficulties can be surmounted, and the most important matter is to find a suitable site of sufficient area, with a satisfactory foundation, readily accessible, not too expensive, and at the same time acceptable to important Government Departments. Various sites have been suggested and surveyed, and negotiations are now going on which will, I hope, result very shortly in the purchase of land on which sewage works for the joint use of Chatham and Rochester, may be erected, but one very important consideration must not be lost sight of, viz., that whatever ground is selected it should be capable of carrying the buildings and tanks which would have to be erected – in other words, that the foundations should be satisfactory.

CLOSET ACCOMMODATION.

The types of sanitary convenience in use in the district are water closets with waste water cisterns; closets with pans and traps, but without a flush; trough closets in use at schools, flushed once daily; and open privies. In the case of dwellings having a common court yard, it is customary to have a block of privies over one large vault, which holds enormous quantities of faecal matter. In order to mitigate the nuisance and danger associated with these accumulations of filth in the vicinity of dwellings, I made a report to your Sanitary Committee on September 12th, advocating the use of movable pails in certain localities, and information was obtained from other towns where the pail system was in force, with the result that your Committee decided to take no action in the matter. If it were a

question of introducing the pail system throughout the Borough I should not be in favour of it, because every town which has this system is gradually abolishing it in favour of a water carriage system, just as we are desirous of amending our present cesspool and privy vault method of storage, but I am still of opinion that, pending the completion of a drainage scheme, a great improvement would result if movable pails were substituted for privy pits in certain parts of St. Mary's Ward, where the stench in summer especially is unbearable, and where myriads of flies are congregated in consequence of the filthy state of the common privies.

The following localities are particularly bad, and owing to their position the pits are always more or less full :—

14, Brook	One privy.
16, Brook.....	One privy.
Bishop's Court	One privy.
Ruby's Court	Twelve privies,
Rose Cottages (4)	One privy.
Bonny's Alley	Three privies.
Dalison's Square.....	Five privies.
Gambier's Court (5)	One privy.

The approximate number of open privies in use in the district is 2,336.

SCAVENGING AND CLEANSING.

There is no more important duty than this in the whole range of Public Health Work, and certainly none which is attended with such beneficial results when it is efficiently performed. In this Borough the work is carried out by two departments—the Surveyor's and the Sanitary.

The cleansing of streets and roads and the removal of trade and household refuse is under the control of the Borough Surveyor, whilst the removal of fish offal and the emptying of cesspools and privies is under the Sanitary Inspector. In the statement supplied by the latter official will be found an account of the work entailed in this process of emptying, and in order to carry it out successfully, and with a minimum of nuisance, it is obvious that much care, foresight, and organisation is required, together with adequate and well equipped plant for the purpose.

With respect to the removal of household refuse the system is admirable, and secures the frequent and regular removal of material, which, if allowed to accumulate in the vicinity of dwellings, becomes not only a nuisance but a source of danger to health. As I have said before, its efficacy is marred by the use of unsightly and unsuitable receptacles, and the question as to whether the

owner or the occupier should provide a proper sanitary dustbin still awaits solution. Removal from the central and busier parts of the town takes place daily, and from other parts twice a week. The cost could be minimised and the efficiency materially increased if householders would make a practice of burning much that is placed in the dustbins. The refuse is disposed of by being carted to a shoot near Luton, well away from dwelling houses, where a portion is used for manurial purposes, and the rest is burned.

There are various plans of dealing with town refuse, but of course the opportunities of every town must control the method of disposal.

The question of providing a Refuse Destructor is under consideration, and looking at the subject from a purely hygienic point of view there is no doubt that destruction by fire is the best way of dealing with refuse, and it is the logical conclusion of the principle—that a Public Authority should discover its filth as soon as possible, secure its rapid removal, and destroy it without undue delay.

The Fish Offal is removed daily in covered bins, which are placed in a closed van. Each bin and the interior of the van is cleansed daily, and no nuisance results.

A very important matter is the removal of manure from stables, etc. Manure heaps are breeding grounds for flies, who convey filth to food, and also carry about the germs of infectious disease from the sick to the healthy. Under Sections 49 and 50 of the Public Health Act, power is given to insist on the periodical removal of manure at such intervals as the Sanitary Authority may fix, and I would again suggest the issue of notices for its removal at least once in every seven days.

HOUSING.

The problem of securing satisfactory house accommodation for people of limited means, and of ensuring that such houses shall be maintained in good sanitary condition is one which requires the continuous attention of all Health Authorities, and in reporting on this subject in my last report I commended at some length on one of the most important aspects of the housing question—viz. that the real difficulty does not lie with the owner, but with the occupier, and at times one almost despairs, when after the lapse of a few weeks or months, houses are revisited on which considerable sums have been expended in renovation and cleansing, and where the tenant takes absolutely no trouble to keep the dwelling decently clean and tidy. A certain standard of habitability must be fixed, but however low that standard is, there is a class who will not live up to it, and who simply do not care where

or how they live so long as they have money to spend on drink. The margin of empty houses in Chatham is not large, and there is also a tendency amongst many of the nondescript class I have alluded to, to rent single furnished room tenements. If the tenants themselves could be made respectable, thrifty and clean, the housing question would be less difficult of solution. But we have to deal with facts as they are, and the lack of co-operation on the part of the tenants of this class of dwelling does not absolve Local Authorities from the duties of searching out insanitary property, and securing its improvement or closure. Slums, slum owners, and slum dwellers alike require attention, because they are all jointly responsible for a large share of disease, immorality and intemperance, and although poverty cannot be abolished, there must be a constant warfare against the above evils, and whether a tenant is good bad or indifferent, he is entitled to and requires for his own and his and his family's health, a dwelling which is well-lighted, capable of proper ventilation, dry and properly drained, with sufficient and suitable closet accommodation and provision for the disposal of ashes and refuse, a decent place for the storage of food, and an adequate supply of pure water. Given these conditions he is provided with an excellent start, and has only got himself and his wife to thank for the misery and disease which inevitably follow neglect of domestic cleanliness, using the term in its broadest sense. In the numerous visits I have paid to the dwelling places of poor, even in cases where there is an attempt to keep the interior clean and tidy, the close stuffy atmosphere of the rooms is evident, owing to the almost universal habit of keeping the doors and windows closed. If the poorer classes could only be made to realise the immense gain to their health which would result from breathing the purer atmosphere brought into their dwellings by keeping them flushed through with currents of air a great forward step in the advancement of the public health would have been taken, and the same advice might well be followed by many people in a better station of life. There are numerous agencies existing at the present day which are doing much religious and philanthropic work amongst the poor, and I would suggest to such as are working in this Borough that a vast field exists for their enterprise in the work of social regeneration, and the inculcation of habits of cleanliness, temperance and thrift. So far, this class of effort as regards any benefit to the type of person who lives in a slum seems to be particularly barren of results, and it looks as if some other methods will have to be tried before any impression is made on the people visited.

Coming to the practical work done by your Health Department it consists in the routine house to house inspection which has been

taking place for some years, but which has during the past year received less attention because the time of the Inspector has been very much more fully occupied in dealing with infectious diseases, the removal of patients and disinfection. In addition to this, certain houses have been specially inspected by myself in accordance with the regulations of the Housing and Town Planning Act, 1909, a few being dealt with under Sec. 15, and the majority under Sec. 17.

The results of these inspections are as follows : —

HOUSING AND TOWN PLANNING ACT, 1909,

No. of closing orders standing Dec. 31st, 1910	6
No. of premises inspected during 1911.....	61
No. reported under Sec. 17.....	50
" " " Sec. 15.....	11
No. of closing orders made	46
No. of Notices under Sec. 15	10
No. put into a fit state after closing orders made.	17
No. demolished	13

NEW BUILDINGS, 1911.

New houses and shops erected.....	72
Houses and shops pulled down and rebuilt	4
Total	76

All plans are submitted to your Medical Officer for his approval, and all new drainage work is tested by the Inspector of Nuisances before being covered in.

Generally speaking the housing accommodation in the district is adequate, although in Chatham itself there is not a large margin of unoccupied houses, and this being so, there is a risk of overcrowding as the result of condemning and closing insanitary dwellings. The majority of the artisan dwellings in the Borough have open space with a good water supply, and every facility for securing cleanliness.

The house to house inspection commenced in 1908 is still being continued, but owing to reasons given above comparatively few have been visited.

The number actually inspected was 193, resulting in the following improvements.

Pan and trap Closet substituted for open privies	23
Bell traps replaced by yard gullies.....	31
Houses cleansed and limewashed	5

Broken W.C. pans replaced	2
Yards repaved.....	3
Roofs repaired.....	3
New Sinks provided	2
Other repairs	6

COMMON LODGING HOUSES.

At the end of the year there were on the register a total of 16 lodging houses, giving sleeping accommodation for 503 lodgers ; there being 445 single and 29 double beds.

The whole of the registered common lodging houses are in St. Mary's Ward, and in the majority of them men only are received. The usual price per person is 4d. a night, but at one place a few rooms are reserved at 6d. a night.

Under the Bye Laws it is incumbent on every lodging house keeper to at once report every case of infectious sickness to the Medical Officer of Health. During 1911 no cases have occurred.

All lodging houses are periodically inspected by your Medical Officer, and in addition frequent visits are paid at irregular intervals. Generally speaking they are well kept and clean, and such breaches of regulations as have occurred are quite of a minor character. Considering the class of people who frequent these places, the necessity of cleanliness and good ventilation is evident. The Public Health Amendment Act, 1907 is of great assistance in the control of lodging houses. Not only must the owner be registered, but his deputy also, and the person in charge must be in daily attendance from 9 p.m. to 6 a.m. The Local Authority has power to cancel the name of any objectionable person from the Register, and if a keeper of a common lodging house is convicted of any offence under the Bye-laws his name may be removed from the Register.

With respect to houses let in lodgings, either as a whole house or part of a house, Bye Laws have been framed during the year, and will come into force during 1912. These Bye Laws will apply to every house or part of a house, which not being a common lodging house, is let in lodgings or is occupied by members of more than one family. There has been a growing tendency of late years to sublet parts of houses after putting a little necessary furniture in the rooms, and it is obvious that this practice may conduce to one of the worst phases of overcrowding, and to the neglect of needful sanitary requirements. The general purport of the Bye Laws will be :—

1. For fixing the number of persons who may occupy a house or part of house which is let in lodgings, or occupied by members of more than one family.

2. For the registration of houses so occupied.
3. For the inspection of such houses.
4. For enforcing the provision of privy accommodation for such houses, and for promoting cleanliness and ventilation.
5. For the cleansing and limewashing at stated times of the premises, and for the paving of the courts and courtyards thereof.
6. For the giving of notices, and for the taking of precautions in case of any infectious disease.

SLAUGHTERHOUSES.

The number of registered slaughterhouses is 16, of which three are not in use. There is also one licensed slaughterhouse. All recently erected slaughterhouses are to be licensed, and subjected to annual renewal. Thus the license may be refused if the place is not well managed. All the slaughterhouses in the district are regularly inspected in order to see that the regulations are observed, and in addition frequent surprise visits are paid in order to note the general routine, and to see if the animals slaughtered are fit for the food of man. Situated as the majority of them are in the heart of the town, and in proximity to dwellings, it is obvious that great care is necessary to keep them clean, and to prevent the retention on the premises of material likely to be a nuisance. For many reasons I consider their presence in a town objectionable, and would welcome the institution of a well equipped Public Abattoir. Unfortunately there is at present no law to make this compulsory, and so it appears a counsel of perfection. To every butcher anxious to secure meat of good quality it would be an advantage, because he could compete in fairer terms with the class of butcher who habitually deals in meat of an inferior quality, than he is at present able to do. But the greatest gainers of all would be the public, who by improved inspection of meat would have a much better guarantee of soundness than it is possible to secure under the methods at present in vogue. Other advantages would be—the absence of nuisance from cattle being driven through the busy parts of the town, and of carting blood and offal through the streets.

FOOD AND DRUGS ACT.

This Act is administered in Chatham by the County Police, all samples being taken by the Superintendent of Police or by an officer deputed by him, and sent to the County Analyst at Maidstone, for examination.

The following samples were obtained during 1911 :—

Description of Sample.	Number taken.
Butter	22
Lard	6
Arrowroot	1
Jam	8
Mustard	3
Ginger	1
Sugar	9
Cheese	1
Tea... ..	2
Whiskey	16
Gin	6
Rum	6
Brandy	3
Milk	84
Margarine	18
Olive Oil	3
Coffee	3
Oatmeal	5
Beeswax	1
Mercury Ointment	2
Cocoa	2
Linseed (Crushed)	2
Ammoniated Tincture of Quinine.....	1
Spirit of Camphor	1
Citric Acid	1
Preserved Peas	1
Pepper	1

The following proceedings were taken under the Act :—

Selling Lard containing 40 parts cocoa nut oil (dismissed).

Selling New Milk containing 8·85 milk solids other than fat, and 2·12 parts per cent. of fat (fined).

Selling New Milk containing 0·077 per cent. of boric acid, equal to 54 grains per gallon (fined).

Selling New Milk containing 0·1043 per cent. of boric acid, equal to 73 grains per gallon (fined).

Selling New Milk containing 6·9 parts of added water (fined).

DAIRIES, COWSHEDS, AND MILKSHOPS.

Number of Registered Cowkeepers	12
Number of Registered Dairymen and Purveyors of Milk	46
Number of Cowsheds in use	13
„ „ disused	6
„ Dairies	14

The regulations issued by the Local Government Board in connection with the above are for prescribing and regulating the lighting, ventilation, cleansing, drainage, and water supply of Dairies and Cowsheds, and for securing the cleanliness of Milk Stores, Milk Shops, and Milk Vessels, used for containing milk for sale by persons following the trade of Cowkeepers and Dairymen, and for prescribing precautions to be taken by purveyors of milk, and persons selling milk by retail, against infection and contamination.

The procedure adopted in regard to the licensing and registration of Dairies, Cowsheds, and Milk Shops is in accordance with the Dairies, Cow Sheds, and Milk Shops Order, 1885, and with Amending Orders in 1886 and 1899.

All these places are the subject of regular inspection, both by myself and your Inspectors, and these inspections are distinctly useful in stimulating a sense of cleanliness and order amongst cowkeepers and vendors of milk. In addition to the above your Veterinary Inspector reports every three months with respect to the condition of the milch cows.

There seems to be a sort of tradition or superstition amongst many cowkeepers that in order to get a plentiful supply of milk a cow should be kept in dark, badly lighted, and badly ventilated, stuffy and vitiated atmosphere, and yet even if this were so the gain in milk is more than counterbalanced by the increased liability to both temporary and permanent disease in the cows. An intelligent appreciation and observance of existing regulations, with the maintenance of a high standard of cleanliness, not only in the surroundings but of the animals, and the milkers, and also a realisation that the production of pure and unpolluted milk entails a great responsibility is what cowkeepers should recognise. The public are not free from blame in this matter, and take little or no trouble to find out how their milk is produced or handled, and yet if they insisted on a reform in the methods of the milk business those employed in it would soon find it to their interest to comply. The majority of people are extremely particular respecting the purity of drinking water, but they will consume manure and bacteria infected milk without a thought as to its purity.

With regard to the sale of milk by small retail dealers, the following regulation is in force :—

“Every purveyor of milk, or persons selling milk by retail, shall cause every vessel containing milk for sale to be properly covered, or the milk in such vessel to be sufficiently protected from contamination by dust and flies, or other deleterious matter ”

Several of these small general shops sell such a small quantity of milk that it can hardly pay them to keep it, and they can only do so for the convenience of their customers. It would be much better if the majority of them did not sell it at all.

C.—SANITARY ADMINISTRATION OF THE DISTRICT.

For the purpose of carrying out the various duties coming under the above head, the following officers are employed :—

- 1 Chief Inspector of Nuisances
- 1 Assistant ,,
- 1 Clerk.
- 1 Disinfector and Mortuary Attendant.
- 1 Foreman of Sanitary Yard and Cesspool Work.
- 1 Nurse for work in connection with the Notification of Births Act.

And 22 men occupied in the work of emptying cesspools and privies.

The Inspectors of Nuisances work under the supervision of the Medical Officer of Health, and their general duties are those prescribed by the L.G.B.

The Chief Inspector also is specially charged with the work of testing drainage, of serving statutory notices, of arranging the duties and controlling the men occupied in cesspool work, and this latter duty occupies a very large portion of his time. He also accompanies your Medical Officer in his work of inspection.

The Assistant Inspector superintends the removal of infectious cases and the disinfection of the premises and clothing, makes the routine enquiries necessary in these cases, and in the cases of pulmonary tuberculosis, and in addition visits and reports on houses and other matters entrusted to him by your Medical Officer. Both officials carry out duties in connection with the Factory and Workshops Act, the Inspection of Dairies and Cow Sheds, of Bake-houses, Common Lodging Houses, and Slaughterhouses.

The adoptive Acts in force in the District are :—

The Infectious Diseases Protection Act, 1890.

Public Health Acts Amendment Act, 1890.

Public " " 1907.

Notification of Births Act, 1907.

In the statement received from the Inspector of Nuisances, which is incorporated in this report, will be found a list of notices, served under Section 22, P.H.A.A., 1890, and under Sections 35, 37, and 43, P.H.A.A., 1907.

BYE-LAWS.

The following Bye-Laws and Regulations are in use :—

1. New streets and buildings.
2. Drainage of existing buildings.
3. The cleansing of footways and pavements, the removal of house refuse, the cleansing of earth closets, privies, ashpits, and cesspools.
4. Nuisances.
5. The removal of offensive matter through the streets.
6. The duties of the occupier in respect of house refuse.
7. Offensive trades.
8. Slaughterhouses.
9. Common lodging houses.
10. Tents, vans, sheds, and similar structures used for human habitation.
11. Mortuary regulations.
12. Dairies, cowsheds, and milkshops regulations.

In addition Bye-Laws have been made and confirmed for houses let in lodgings, and it is proposed to draft Bye-Laws for the regulation of Fish Frying Establishments, and for the paving of yards and alleys.

CHEMICAL AND BACTERIOLOGICAL WORK.

All chemical analyses in connection with Food, etc., are carried out by the County Council Analyst, and the local administration is in the hands of the County Police.

Bacteriological work is confined to the diagnosis of Diphtheria, Enteric Fever, and Tuberculosis. For some years this work has been carried out for your Council by Dr. Spitta, of St. George's Hospital, London, and the method has proved very satisfactory, but is now discontinued. As mentioned in my report for 1910, the proposed County Bacteriological Laboratory has now been established at Maidstone, and is available for all Local Authorities in Kent, and since December specimens have been sent to the

County Medical Officer. Up to the present, although the scheme may be said to be in its infancy, I have found the working as regards this district to be highly satisfactory. Prompt replies are received to all applications, and a fresh outfit to replace the one used accompanies all answers. Particulars of cases in which specimens have been sent for diagnosis appear under the account of the various diseases.



STATEMENT OF INSPECTOR OF NUISANCES.

TO DR. HOLROYDE, F.R.C.S.E., M.O.H.

DEAR SIR,—

I herewith append my Annual Report on the various matters arising out of the duties as Inspector of Nuisances for the Borough of Chatham for the year 1911.

DRAINAGE WORK.

This work is, as usual, in connection with two classes of property, viz.:—

- (a) New Houses.
- (b) Old Houses.

With new houses the duty of your Inspector is the testing of the drainage.

The work is carried out according to the Bye-Laws in force in the Borough, all drainage having in connection with it an inspection chamber with fresh air inlet attached, also an interceptor, and a ventilating shaft.

On receipt of the Form of Notice from the Surveyor the drainage is tested by smoke or water, or both if deemed necessary, this necessitates at least two or three visits.

With regard to old houses alteration of drainage arises out of inspections, cases of infectious disease, and complaints.

The following list shows the drainage work tested in connection with the plans submitted to the Council.

I.—NEW BUILDINGS (Houses)

Maidstone Road.....	9	Wyles Road	3
Beaconsfield Road.....	9	Maida Road	4
Pagitt Street	4	Glencoe Road.....	1
East Hill.....	4	Capstone Road	2
High Street	5	Alexander Road.....	1
Luton Road	2	Railway Street	1
Curzon Road	4	Constitution Road.....	2
Rochester Street	1	Walderslade	1
Lordswood Lane	2	Luton High Street.....	2
King Edward Road	1		

II.—NEW BUILDINGS (other than Houses).

National Theatre, High Street.
 Luton Road, shop.
 Magpie Hall Road, milk store.
 Brook, Mission Hall.
 Luton Road, cart shed.

III—NEW ADDITIONS TO OLD BUILDINGS.

Urinal at the Clarendon.

New W.C., Ordnance Street.

St. John's Institute, Ordnance Place.

Naval and Military Home, Clover Street.

Bungalow, Walderslade.

The above shows the drainage work actually completed.

The new and up-to-date drain testing machine has worked well, and is far more effective than the old one, and more convenient for carriage.

Still a large number of open privies exist, approximately 2,366.

During the year I have caused 98 open privies to be converted into panned and trapped closets, with necessary drainage in connection with the same.

In carrying out alterations to drainage work to old property a great benefit has been derived since the Bye-Laws in connection with Existing Buildings have been in force, as your Inspector now gets in touch with all work carried out.

Only in one instance was warning needed for failing to give notice of commencement of work.

CESSPOOL WORK.

The work under this heading increases year by year, the total number of applications being larger than any previous year, viz., 3,267, an increase of 444 over the year 1910, and 1,936 more than in 1901.

The number of applications per month are here shown :—

January	299	July	210
February	286	August	204
March	376	September	175
April	326	October	270
May	335	November	265
June	246	December	275

The number of liquid sewage loads removed amounted to 5,566, and night soil 2,372, representing 3,000,000 gallons in twelve months, an excess of 150,000 gallons over the preceding year.

The number of cesspools emptied were 3,136, and privy pits, 104.

During the year 58 shallow cesspools were deepened, and 59 new ones provided.

It will be seen that the work under this heading is greater than ever.

In 1901 the number of inhabited houses was 7,242, with a population of 37,057, as against a population of 42,457, and 9,562 houses in 1911.

It will thus be seen that the population of Chatham has increased in ten years by 5,400, the number of houses by 2,320.

MORTUARY.

During the year 26 bodies were removed to the Mortuary, as against 17 in 1910. Of this number 9 were women, 10 men, and 7 children.

Ten post mortem examinations were held on 4 women, 2 men, and 4 children.

Twelve bodies were buried at the expense of the parish, viz., 4 men, 4 women, and 4 children.

Fourteen bodies were buried by relatives. Only one body of a suicide was brought into the Mortuary.

The provision of shells for removal of bodies of pauper cases has been successfully worked, the Contractor to the Guardians supplying these, and the police for other cases.

A waiting room has been granted for the use of the jury in close proximity to the Mortuary.

FISH OFFAL COLLECTION.

Fish Offal is collected from 23 shops, the fishmongers paying on an average 14s. per week for the use of tins, etc.

UNSOUND FOOD.

2 Carcases of Beef (tubercular).

5 Trunks of Fish.

1 Case of Foreign Rabbits.

Condemned notes were given to the owners of the above.

1 cwt. (about) of pieces of beef and pork and sausages.

The latter were left in a house and found in such a condition as to necessitate a thorough cleansing and disinfecting of the whole house.

INFECTIOUS DISEASES.

In connection with infectious diseases 220 loads of bedding have been disinfected, and 220 houses have been disinfected, in which the following cases occurred, viz. :—

Diphtheria.

Scarlet Fever.

Enteric Fever.

Phthisis (Deaths).

Phthisis (Compulsory Notifications).

Smallpox.

The whole of this work is carried out by the Assistant Inspector.

In the case of smallpox every facility was given to the "contacts" to isolate themselves as far as possible, by a man calling upon them to deliver food, etc.

1,387 houses were visited in which measles occurred and instructions distributed.

Thirty-three houses were disinfected by request of the Military Authorities, occupied by outworkers doing barrack work, whose children had had measles.

COMMON LODGING HOUSES.

The number of Common Lodging Houses registered is 16.

The whole of these houses are situated mostly in the Brook area, and during the year have been well kept, the number of Notices required being—

(a) Lack of Cleanliness	5
(b) Necessary repairs	2
(c) Alteration of W.C.	2

These houses have been repeatedly visited both day and night.

(a) Day visits	109
(b) Night visits	51

Section 70 of the Public Health Act Amendment Act, 1907, requires the keeper or the deputy of a common lodging house to be on the premises between the hours of 9 p.m. and 6 a.m., and to carry out the Section 51 visits were made.

HOUSES LET IN LODGINGS.

During the year this matter has been taken in hand by the Council, and Bye-Laws have been made under Section 90 of the Public Health Act, 1875, for the registration of houses so let.

There is no doubt that in this district this is a matter of as great importance as the registration of Common Lodging Houses.

DAIRIES, COWSHEDS AND MILKSHOPS.

The number of cowkeepers now registered in the district is 12.

The cowsheds in use at the present time number 13, and those disused number 6.

The registered milk sellers are 46. The number of cows kept in the district is on the average 220, of these 55 are kept in town sheds, and 165 in the country district sheds.

The 6 disused cowsheds are all situated in the town district. The number of dairies is 14.

SLAUGHTER HOUSES.

The slaughter houses registered number 16 and 1 licensed. Of these three were disused, as against 4 in 1910.

Upwards of a hundred visits have been made to slaughter houses, and 11 notices served for lack of cleanliness.

BAKEHOUSES.

The registered bakehouses number 27. Of these 2 are factory and 25 workshop bakehouses. 10 are classed underground.

Ninety-seven visits were made to the bakehouses, but only 5 notices were required for lack of cleanliness.

OBNOXIOUS TRADES.

1 Gut Scraping Establishment.

KNACKERS' YARDS.

1 Knackers Yard.

No complaint has been received concerning this yard.

The following show the number of animals "boned out" during the year, viz. :—

710 Horses.

49 Cows.

2 Donkeys.

CLERICAL WORK.

The clerical work continues to increase with the passing of various Acts of Parliament, which concern this Department, and with resolutions passed by the Council.

In concluding my Report I have attached a list of the number of Notices served, visits made, and work carried out.

I remain,

Yours obediently,

W. G. JOELS.

HOUSING AND TOWN PLANNING ACT.

The following list shows the work done under the Housing and Town Planning Act :—

Number of Closing Orders standing December 31st, 1910	6
Number of premises visited during 1911	61
Defects or Nuisances discovered.....	61
Number reported under Section 17	50
" " " 15	11
Number of Closing Orders made	46
Number of Notices under Section 15.....	10
Number put into fit state after closing orders made	17
Number demolished	13

POLICE COURT PROCEEDINGS.

For keeping pigs contrary to the Bye-Laws. Fined £1.

Combined Record of work as concerns the Inspector and Assistant Inspector for the year 1911 :—

I.—NOTICES SERVED.

Preliminary Notices	50
P.H.A., 1875, Section 91	71
„ 1875, „ 41	3
„ 1875, „ 36	52
„ A.A., 1890, Section 22	1
„ „ 1907, „ 43	1
„ „ „ „ 35	2
„ „ „ „ 37	4
H. & T. Planning Act, Section 17.....	46
„ „ „ 15.....	10

II.—VISITS.

Factory, Workshops, and Workplaces	409
Housing and Town Planning Act.....	115
House to House Inspection	193
Drainage Work	709
Common Lodging Houses	160
Cowsheds, Slaughterhouses, etc.	154
Infected Houses	690
Homes of Outworkers.....	461
Cesspool Work	62
Complaints and General Nuisances	58

III.—SANITARY WORK.

Bell Traps removed	31
Brick Drains removed	3
Concrete Yards repaired	5
" provided	2
Cesspools constructed	59
" enlarged or repaired	58
" ventilated	22
Closet structures built or re-built	12
Drains repaired	6
Drainage to New Buildings inspected	68
" Old	191
Further Water Supply provided	1
Houses with old drains replaced entirely with new	12
Houses repaired inside	42
" outside	39
Houses with Privies supplied with drainage ...	98
New Zinc Waste Drains provided	34
Overcrowding abated	4
Offensive Matters removed	6
Privies repaired	9
" filled in	98
Panned and Trapped Closets supplied	98
Sink Waste Drains directly connected with Cesspool disconnected	1
Sinks provided	2
Stables drained	1
Untrapped Drains trapped	4
Urinals built or repaired	5
Choked Drains cleared	51
Washhouses provided	5

W. G. JOELS.

D.—VITAL STATISTICS.

POPULATION.

The decennial census was taken in 1911, and the population of Chatham is returned as 42,250, which is rather lower than my estimate. A more frequent census is desirable, and it need not necessarily include all the details sought at the ten year enumeration. It would certainly help to a more accurate estimation of the amount of sickness and mortality in every district, because it is generally found that the estimates made towards the end of the intercensal period are incorrect, and therefore the rates require revision.

In your district the census returns as to occupations, overcrowding, and the separate populations of each Ward are not yet available.

It should be noted that a large proportion of the so-called Chatham Garrison and of sailors is counted in the Borough of Gillingham.

The number of houses in the several Wards of the Borough are :—

St. Mary's Ward	.....	2174
Luton	„	4530
St. Johns	„	2908
Total		9612

It is estimated that at the present time there are about 50 empty houses in the Borough, so that the total of inhabited houses is 9562, giving an average for the whole district of 4·4 persons per house. If the particulars for each Ward were available it would probably be found that in some portions this average was much higher.

BIRTHS.

The total number of births registered during the year was 1,114. Included in this total are 48 births occurring outside the Borough of persons who belong to it. There were also 13 births in the Borough, which were transferred to other localities. Of males there were 568, and of females 546. The illegitimate births numbered 34.

Birth Rate 26·3 per 1,000.

The following table shows the natural increase of population, that is the increase of births over deaths in each division of the Borough :—

	Births.	Deaths.	No. of births over deaths.
St. Mary's Ward	193	167	26
Luton „	582	249	333
St. John's „	291	136	255
	<hr/>	<hr/>	<hr/>
	1066	552	614
Deaths in Institutions ...		105	105
		<hr/>	<hr/>
		657	509

The nett result is the increase of births over deaths of 509.

The above figures deals with births and deaths actually registered in the Borough, and do not include transfers.

DEATHS.

Certain alterations in the compilation of statistics at the Registrar General's Office, by which they are, dating from the commencement of 1911, published for administrative instead of for registration (or poor law) areas have resulted in the issue of Tables by the Local Government Board, which differ in certain important particulars from preceding tables, and in the reduction in their number from five to four. The chief and most important change is that steps have now been taken to ensure that each Medical Officer of Health will receive the necessary particulars with regard to the deaths of persons dying outside the district in which they previously resided. These transferable deaths are forwarded to the County Medical Officer of Health, who transmits them to Local Medical Officers for inclusion in their returns, so that with a very few exceptions it is now possible to allocate the deaths of all persons to the localities to which they properly belong.

In Chatham the nett total of registered deaths during 1911 was 670. This total is arrived at by the inclusion of deaths of persons dying outside the district but belonging to it, and also by excluding the deaths of those persons who died in Chatham, but who belong to other localities. The former class are known as "residents," the latter as "non residents."

The deaths of non-residents occurred, with one or two exceptions, in the Medway Union Workhouse, whilst the deaths of residents were in St. Bartholomew's Hospital, St. Williams' Hospital, Fort Pitt Military Hospital, all in Rochester, the Royal Naval Hospital and Military Families Hospital in Gillingham, and in addition to these local institutions a number were received from various parts of the country—several being of persons dying in the County Lunatic Asylum. Fourteen of these transferable deaths,

which are allocated to Chatham, had insufficient and doubtful addresses, chiefly due to the fact that the Local Registrar had been unable to secure a proper postal address. For example, six deaths of naval pensioners, occurring in the Royal Naval Lunatic Asylum at Yarmouth, of individuals sent to that Institution by the Naval Authorities at Chatham, are counted as Chatham deaths, although the residential area of the Naval Port of Chatham comprises three separate municipalities. In the same way certain deaths, originally transferred from the Medway Workhouse, are allocated to the town of Chatham.

The total number of deaths of residents occurring outside the district was 78, and of "non-residents" occurring in the district, 76.

In Table I., appended to the report, will be found a comparative statement of births, deaths, and rate of mortality during 1911, and the five preceding years.

The rate of mortality is 15·8 per 1,000.

For the last few years the decline in the death rate has been gradual and satisfactory, and the figures for 1909 and 1910 were exceptionally low, the death rate for the latter year being the lowest yet recorded. Doubtless the very favourable climatic conditions of these two years, when there was an absence of extremes of temperature, a lessened amount of Respiratory disease and of Diarrhoeal diseases, accounted for the very low mortality, and I would combine with these reasons the greatly improved arrangements made by your Council in scavenging, in dealing with insanitary property, in the detection and control of infectious diseases, and in the general sanitary administration of the Borough. With regard to the increase of mortality in 1911, it is due to two causes, both operative amongst children, viz., a very widespread and fatal epidemic of measles in the spring of the year, and in the summer a large number of deaths from Diarrhoea.

The following Table shows the mortality in England and Wales during 1911 as compared with Chatham :—

	Annual Rates per 1,000 living.		
	Births.	Deaths at all ages.	Infant Mortality.
England and Wales	24·4	14·6	130
77 great towns	25·6	16·4	140
136 smaller towns	23·4	14·4	133
England and Wales	23·4	13·1	118
(less the 213 towns)			
Chatham	26·3	15·8	127

The ages at which deaths occurred were as follows :—

Under 1 year	142
1 and under 5 years	86
5 " 15 "	37
15 " 25 "	29
25 " 65 "	206
65 years and upwards	170

The numbers registered during each quarter of the year were :—

First Quarter	236
Second " 	118
Third " 	145
Fourth " 	129

These figures refer to residents registered in the Borough, and do not include transferrable deaths from other places.

The number of deaths registered in different parts of the Borough was as follows :—It should be noted that these numbers refer only to deaths actually occurring in the Borough :—

MONTHLY.

January	47	February	85	March	104
April	59	May	32	June	27
July	36	August	63	September ...	46
October	43	November	46	December ...	40

WARD RATES.

The census rates of population for each Ward are not yet available, but by ascertaining the number of inhabited houses in each Ward, and allowing an average number to each house, I am able to give an approximate estimate of the Mortality in each Ward. Calculated on this basis the result is as follows :—

St. Mary's Ward	16 5 per 1,000
Luton " 	12·0 "
St. John's " 	9·9 "

SEX.

Amongst males there were 334 deaths, and amongst females 294.

ILLEGITIMATE BIRTHS AND DEATHS.

The births of illegitimate children credited to the district were 34, and there were 23 deaths.

INFANTILE MORTALITY.

The Infantile Mortality or number of deaths of infants under one year of age to every 1,000 births registered is 127. The following are the figures for the previous five years : --

1906	137	per 1,000 births.
1907	124	„ „
1908	127	„ „
1909	107	„ „
1910	92	„ „

This subject is of the very greatest importance, and I have in previous Reports commented on the general and particular causes underlying excessive Infant Mortality, and on the measures requisite in order to diminish it. It is satisfactory to know that Sanitary Authorities have come to recognise the evil conditions associated with it, and that attempts are being made to grapple with them. The mortality is of two kinds—the *unavoidable*, such as is associated with premature birth, congenital malformation, and defects, hereditary disease and weakness of the parents; and the *avoidable*, associated with the surroundings and mode of life, with the methods of feeding, and above all with the personal care and attention bestowed on the infant by its responsible guardian. A study of the various causes of deaths amongst young infants inevitably leads to the conclusion that many of them are preventable, and it is equally true that the measures which prevent sickness and mortality in infants also lay the foundations of a healthier childhood, and a more robust and useful adult life.

The general *public agencies* which will limit the waste of Infant life may be summarised as follows :

- Improved housing conditions
- A well-organised system of refuse removal.
- Frequent removal of manure.
- Paving of yards, courts and alleys.
- Provision of suitable ashbins.
- The abolition of privy pits.
- Good drainage.
- Good water supply.
- Notification of Births Act.
- The issuing of leaflets dealing with the care and management of Infants.

The *private and personal agencies* are concerned with the methods of feeding adopted, and the personal care and attention bestowed by the mother on her child, and the success which is attained is always in direct proportion to the intelligence of the mother. The ignorance and neglect displayed by many is really

lamentable, and in order that improvement may take place, frequent visiting of the homes for the purpose of giving advice and encouragement is needed.

This latter object is now greatly facilitated by the Notification of Births Act 1907, which was adopted by your Council, and which came into operation in your district on July 1st, 1910.

The duty of notifying the birth of a child is imposed on the father, and on the person in attendance on the mother at or within six hours after the birth, and in practice the duty falls on the medical attendant or on the midwife, who must send a prepaid letter or postcard (supplied by the local authority) to the Medical Officer of Health within thirty-six hours after the birth.

The adoption of the Act also necessitates the making of suitable arrangements for carrying out its provisions.

For the first twelve months these duties were performed by the School Nurse, but it was found impracticable to satisfactorily combine the two offices, because the work was too much for one person, and at present a nurse is specially appointed to visit in accordance with the provisions of the Act. The work is carried out under my supervision, and in accordance with the following schedule of instructions.

MIDWIVES' CASES.

Four routine visits are paid at—

1. The end of the first week.
2. The end of the second week.
3. The end of the first month.
4. The end of the second month.

DOCTORS' CASES.

1. At end of second week.
2. At end of first month.
3. At end of second month.

In all cases where a doctor is in attendance no visits are paid if there is any objection either on his part or on the part of the parent, nor is advice as to management given during the attendance of the doctor, it being presumed that he is best able to judge of the requirements of the case under his care. In cases of doubt or difficulty the Medical Officer of Health decides as to the course to be pursued, and so far the act has been administered without any friction.

The leaflet supplied by the Health department, and left by the nurse, contains advice respecting both natural and artificial feeding,

on the preparation and quantities of food, of weaning and feeding afterwards, of things to be avoided, of the proper methods of making and using barley-water and lime-water, and general directions respecting the eyes, washing, sleep, clothing, fresh air and sunlight, and advice to nursing mothers with regard to their own health.

These instructions are supplemented by the nurse's personal advice, always to be on the lines indicated on the printed list.

The following particulars will show the scope of the work :—

Births registered.....1114

Total cases notified—

(a) Doctors	(b) Midwives	
208	678	= 882
		or 82 per cent.

Total number of visits paid by Nurse	2264
„ „ „ mothers visited	659
Number of breast-fed children	615
„ „ bottle-fed children	44
Defective addresses.....	27
Changed „	14
Refusing admission.....	14
Number of houses clean.....	493
„ „ fairly clean	130
„ „ dirty	36
„ „ improved during visit- ation	74
Number of deaths during Nurse's visits ...	30
„ „ stillborn	34

Of the deaths 17 died during the first week.

6 died between the 2nd and 4th week.

7 died between the 4th and 6th week.

RESPIRATORY DISEASES.

The number of deaths registered from this class of diseases, excluding Phthisis, was 73.

During the five previous years the numbers registered were :—

1910	60
1909	69
1908	83
1907	92
1906	75

The deaths were due to the following diseases :—

Bronchitis	34
Broncho-Pneumonia	14
Pneumonia	22
Other Respiratory Diseases...	3

PHTHISIS OR PULMONARY TUBERCULOSIS.

The number of deaths registered from this cause was 64. During the preceding five years the numbers were :

1906	56
1907	56
1908	51
1909	59
1910	50

From Tubercular disease of other parts of the body there were 9 deaths.

Phthisis Mortality 1·5 per 1000.

The disease known as Pulmonary Tuberculosis is the latest to be added to the list of notifiable diseases, and from the 1st January, 1912, all cases, whatever may be the circumstances or surroundings of the patient, must be reported to the Medical Officer of Health.

Voluntary notification has been in force in your district since 1904, but the numbers received have been so small, that as an attempt to cope with the disease, it has been a complete failure.

The present position has been reached by successive steps, beginning in 1908 with the regulations respecting the notifications of cases occurring amongst the inmates of Poor Law Institutions, or amongst persons under the care of District Medical Officers, followed by the Regulations as to Tuberculosis (Hospitals) which came into force on May 1st, 1911, and culminating in General Compulsory Notification coming into force on January 1st, 1912.

The 1908 Regulations brought to light cases amongst the very poorest section of the public, the 1911 regulations several cases in a class—sometimes in, sometimes out of the poor law, and as a general rule unable to provide treatment for themselves except by resort to voluntary charitable agencies. The incidence of Phthisis is the greatest in these two classes of people, and I think it quite likely that the number reported under the latest regulations will be less numerous than many people expect. Doubtless, as the machinery for the detection of early and unrecognised cases becomes established, there will be a considerable numerical increase. One of the leading ideas in combating Consumption is that each case should be the starting point for the discovery of others, who, especially in crowded dwellings, are likely to be found in association with the patient.

Pulmonary Tuberculosis, although an infective disease, differs markedly from the class of infectious diseases previously scheduled. Its early stages are ill-defined, its duration is prolonged, its infectivity is limited and irregular, and most important of all, this infection is very largely under the control of the patient, who has only to be taught and then to practise certain measures of personal management, easily carried out, not enforcing isolation, nor to any extent preventing employment and association with other people.

The source of infection is the Tubercle Bacillus, which exists in the spit or sputum, which is emitted from the lungs during the process of coughing, and it is the destruction and disposal of the sputum before it becomes dried and disseminated in the atmosphere which forms one of the most important defences against the spread of the disease. The danger from sputum is much less during the early stages of the disease, and the largest amount of infective material is given off by advanced cases.

Other factors bearing on the transmission of the disease are —

- Unhealthy surroundings and dampness of
smaller dwellings..
- Bad housing conditions.
- Overcrowding.
- Poverty.
- Intemperance.

And also hereditary predisposition.

The first effect of compulsory notification will be to bring to light all defined cases—some of which will be in an early stage, some intermediate, and some advanced and incurable; and in considering measures of prevention and of cure it must be borne in mind that the disease has a social and an economic as well as a medical aspect, and that no matter what institutional provision for treatment is provided, a large number of cases will have to depend on home treatment—some for the entire duration of illness, some for a more limited period, and all of them for some period.

Bearing these facts in mind whenever schemes for dealing with Tuberculosis are considered, a foremost place must be given to such preventive measures as can be carried out in the home.

In discussing the administrative control of Tuberculosis, it will be well to state first of all that in your district, the only special provision for the treatment of Tuberculosis is at the Medway Union Infirmary, where accommodation for thirty males, and six females is provided. There is no separate accommodation for the various stages of the disease, although they are grouped as far as possible, and placed on the verandahs which will take twenty-four cases.

They are all pauper cases reported in the first instance by the Relieving Officers. The Guardians and their Medical Officer have for some time been keenly interested in this matter, and the results as regards improvement have been very satisfactory. There is no doubt that Poor Law Infirmaries can render very valuable help in the treatment of Phthisis, and if it is possible to increase the local provision, especially for advanced cases, I venture to suggest it to the Guardians as being one of the most effective preventive measures that can be taken. I think in the case of Poor Law patients—that even at the risk of diminishing the facilities for the treatment of early Tuberculosis—preference should be given to advanced cases, chiefly because these cases are more infective, the patient being debilitated has less power to control his infectivity, and owing to poverty and destitution the home conditions are usually such as to favour the spread of infection.

The measures taken in the Borough are therefore limited by existing facilities. They consist of the following routine measures: The making of an inquiry—having particular reference to the home circumstances and surroundings of the patient, followed by the distribution of instructions respecting personal management, especially as regards infection, the cleansing and disinfection of rooms inhabited by consumptives, the improvement of insanitary conditions, and the provision of spit bottles. Cleansing and disinfection is carried out in all cases after removal or death. The fundamental idea is to instruct the patient, to improve his surroundings, and to visit him from time to time to see that precautions are being observed. In addition to the instructions left at home, a very excellent pictorial poster was placarded during the Autumn on various hoardings in the Borough.

The Bacteriological examination of sputum has been carried out in thirteen cases, of which only four gave a positive result, whilst in nine specimens no Tubercle Bacilli were found. In very early cases the Bacilli are often absent, or at all events intermittent in their appearance, and for this reason I should not place absolute reliance on the negative results obtained from a single examination of the sputum.

The question of Sanatorium treatment needs mention. Sanatoria are of two kinds—one for earlier cases, chiefly educational in scope, and one for advanced and incurable cases. Buildings of this kind need not be expensive, and the suggestion has been made, and in some cases carried out, that existing buildings for infectious disease should be utilized. Under the provisions of the National Insurance Bill, money is allocated for the erection of Sanatoria, and for the maintenance of patients and their dependants. I do not think a Borough of this size will need its own Sanatorium, but that it will

be better to have buildings erected for large areas, and I believe the County Medical Officer is organising a scheme on these lines. A most important organisation for combating Tuberculosis is the Tuberculosis Dispensary—of which there should be one in every district. It co-ordinates and disseminates all information regarding Tuberculosis; through it cases are followed to their homes, where the malady is attacked at its source, all contacts are found out and examined, from it suitable cases are sent to Sanatoria, and advanced cases to special institutions, and it is in intimate association with the Public Health Authority, and with various charitable agencies.

The links then in the administrative chain would be—Notification and its attendant inquiries and recommendations; the Tuberculosis Dispensary—forming the central point from which the early cases are searched for, and from which all classes of case can be put in the way of treatment most suitable for them, and finally a number of Sanatoria worked in conjunction with these Dispensaries. One of the greatest helps will come from the public themselves when they realise not only the evil of bad air, but the benefit of pure air—because the most important of all factors not only in the cure of consumption but the preservation of health is pure air.

Following on the above lines, it is in the power of Local Authorities to adopt all or any portion of them for the purposes of treatment. Compulsory notification has been secured, but we cannot be content with simply registering the number of Tuberculosis cases, and remedial action must follow. Although the methods will differ from those requisite with the other infectious diseases, yet the objects to be attained are similar, viz., prevention and cure, and there will be this difference, that in the case of Phthisis, a part of the expenditure will be borne by the Imperial Exchequer. Under the National Insurance Bill, a million and a half is provided for the erection of Sanatoria, and a sum of 1/3 per head of insured persons, for maintenance of the patients.

The number of notifications of Phthisis during 1911 was 82.

Poor Law Notifications	23	—	18 in Medway Union.
Hospital	„	29	
Voluntary	„	30	

The distribution of the cases was as follows: including the numbers admitted to the Union—

St. Mary's Ward	.....	40
Luton	„	..... 30
St. John's	„	..... 12

The figures are eloquent of the part played by poverty and bad social conditions in the incidence of consumption, and the true value of them is best realised by remembering that the population of Luton Ward is double that of St. Mary's, and St. John's.

HEART DISEASES.

From this class of disease which includes diseases of the blood vessels, and cases of Cerebral Embolism and Hæmorrhage, primarily due to disease of blood vessels, there were 108 deaths as against 115 during 1910.

CANCER.

Cancer and other forms of Malignant disease caused 34 deaths. From violence, excluding suicide, there were 16 deaths, and from suicide 3.

E.—INFECTIOUS DISEASES.

Inquiries into the causation of outbreaks of Infectious Disease, and the adoption of suitable preventive measures, are continuously occupying the attention of Health Officers, and require special consideration.

In Table II., which is appended, will be found the number of cases of Infectious Disease notified during the year 1911 in each division of the Borough.

The total number of cases notified was 349, including Tuberculosis. During the preceding five years the numbers were as follows:—

1906	302
1907	208
1908	197
1909	194
1910	173

The following Table shows the mortality from diseases of this class and from Enteritis during 1910 and 1911.—

	1910	1911	Increase or decrease.
Scarlet Fever	0	3	+ 3
Measles	0	78	+78
Whooping Cough	27	2	—25
Diphtheria and Membranous Croup	8	5	— 3
Enteric Fever	1	2	+ 1
Diarrhœa and Enteritis	15	58	+43
Small Pox	0	1	+ 1

In addition to the diseases scheduled under the Infectious Diseases Notification Act, there are certain non-notifiable diseases, respecting which information is desirable. This is obtained by an arrangement with the Education Department. The head teacher of each school forwards every week the names and addresses of such children as are absent on account of Measles, Whooping Cough, Chicken Pox, and Mumps, and all children from infected houses are excluded from school until there is no further risk of infection. In addition an Inspector visits the houses and leaves printed instructions in regard to management. These measures greatly lessen the necessity for school closure.

The Librarian at the Free Library receives a weekly list of the names and addresses of such persons as are known to be suffering from infectious disease, and no books are issued to these houses until they are declared to be free from infection. Should any books be found at a house when infectious disease is reported they are disinfected before being returned. There has been no instance of the conveyance of infection by books.

In the non-notifiable group the two most important diseases are Measles and Whooping Cough, both highly infective, both attended with a high mortality, and neither regarded with sufficient seriousness by many parents.

MEASLES.

In my last Report I commented on the absence of this disease for two years, and suggested that with its tendency to recurrence every second or third year this immunity was not likely to last. This prediction was abundantly justified, and during the months of February and March there was an outbreak of an alarming and fatal character, rapidly affecting the whole of the district, and coinciding with similar outbreaks in adjoining localities, and throughout the country generally. The total number of deaths registered was 78, of which 60 were under five years. In February 26 deaths were registered, in March 45, and in April 7. In St. Mary's Ward there were 37, in Luton Ward 26, and in St. John's Ward 15 deaths. The outbreak occurred suddenly, lasted two months, and since April not a single case has been reported. In the absence of notification special measures were resorted to in order to determine the number of children and households effected, and in place of the usual weekly return, teachers were instructed to forward a daily return giving the names and addresses of all children absent from school on account of Measles, and also a bi-weekly return of the number of children present at each school. The majority of children attacked were under the age of ten years, and in addition were children not attending school under five years.

The approximate number of households in which cases occurred was 1,387.

The question of School Closure was one which arose for consideration early in the progress of the disease, but in spite of many representations from interested people in favour of this procedure, no circumstances had arisen which, in my judgment, rendered it necessary.

The object of School Closure is to prevent the spread of disease, and unless there is a reasonable prospect of securing that object it is not justifiable. The Medical Officer of Health has no power to order the closing of schools, his function is advisory only, and in coming to a decision he must be guided wholly and solely by the completeness of the information at his disposal, by the opportunities which exist for the intercourse of children from different households elsewhere than at school, and especially as to whether School Closure would really prevent the propagation of disease. Further it must be remembered that the closing of a school deprives the Medical Officer of Health of information respecting early and doubtful attacks. The plan followed was to rigorously exclude all children from infected households.

The great difficulty in controlling epidemics of Measles lies in the fact that it is highly infective in the three or four days preceding the onset of the rash, and also in the almost criminal carelessness displayed by some parents in their neglect of precautions not only against infection but for safeguarding the lives of the children attacked. Every household was visited by your Inspectors, and handbills, embodying simple directions for management, were circulated.

WHOOPING COUGH.

This disease, which caused 27 deaths during 1910, was only responsible for 2 in 1911. It resembles Measles in one respect, viz., that it is most fatal during early life, and that its fatality is generally due to Bronchitis or Pneumonia.

SCARLET FEVER.

This disease was very prevalent during the latter part of 1911. From January to September, inclusive, only 37 cases were notified, in October there were 28, in November 44, and in December 42. It will be noted that it suddenly assumed epidemic proportions during the month of October, and the following statement of notifications received since October 1st shows that its chief incidence was in Luton Ward.

	St. Mary's Ward.	Luton Ward.	St. John's Ward.
October	3	17	8
November	6	22	14
December	7	24	13
	—	—	—
Totals	16	63	35

Most of the early cases were in Luton Ward, but were distributed over a large area, and not concerned with any particular school, and very shortly cases were reported in St. John's Ward, many of them being children attending schools situated in Luton Ward, and of the few cases reported in St. Mary's most of the children attended Luton Schools. The majority of the cases were at Magpie Hall Road, Glencoe Road, Grove Road, and Luton Road Schools, and I think the source of the outbreak was due to the presence of some mild and unrecognised cases amongst children resident in this locality, and attending one or more of the schools mentioned. One of these cases was discovered at the Glencoe Road School, desquamating slightly, and with a history of previous sore throat and rash.

For several years Scarlet Fever has been of a mild type, and this fact adds materially to the difficulty of dealing with it, because a child may be in an infective condition, and yet be so slightly indisposed that the real condition is overlooked or neglected by the parents. The rapid occurrence of such a large number of cases, the majority of which were willing to enter the Isolation Hospital, severely taxed the capacity of that Institution, and the result was that many of them had to remain at home under conditions rendering effective isolation impossible, and causing secondary cases in various households, which could have been avoided if it had been possible to remove the primary case. Under these circumstances a waiting list was established, and as vacancies occurred cases were sent in, preference being given to those which were, in the opinion of your Medical Officer, most likely to benefit both themselves and the public by being removed. I am glad to state that at the time of writing this tension is greatly diminished, and fewer cases are being reported. The total number of cases notified was 145, and the number of household affected was 118; 88 cases were removed to Hospital.

In the subjoined Table will be found details of Scarlet Fever occurring in Chatham during the past ten years.—

	Total No. of cases notified.	No. under 5 years.	Deaths regis- tered.	Treated in Hospital.	Attack rate per 1,000 of population.	Mortality per 1,000.	Percentage removed to Hospital.
1902	74	31	1	50	1.9	.002	67
1903	115	55	3	84	2.9	.008	73
1904	61	21	1	47	1.5	.003	77
1905	42	8	—	32	1.02	—	71
1906	200	54	1	149	4.8	.002	75
1907	81	33	4	67	1.9	.009	83
1908	81	29	—	56	1.8	—	69
1909	87	31	4	63	1.9	.009	70
1910	37	5	—	30	0.8	—	81
1911	145	35	3	88	3.4	.007	60

DIPHTHERIA AND MEMBRANOUS CROUP.

The number of deaths from Diphtheria was 5. The number of notified cases was 74, and of households affected 56

The population in each locality was as follows :—

St. Mary's Ward	16
Luton „	26
St. John's „	32

The numbers affected at various ages were :—

Under 1 year	—
1 and under 5 years	25
5 „ 15 „	42
15 „ 25 „	3
25 „ 45 „	2
45 „ 65 „	2

The following table shows the number of cases and deaths from Diphtheria during the past ten years :—

Year.	Cases Notified.	Deaths.	Year.	Cases Notified.	Deaths.
1902 ...	35	7	1907 ...	30	4
1903 ...	26	3	1908 ...	34	7
1904 ...	26	2	1909 ...	65	16
1905 ...	25	2	1910 ...	77	8
1906 ...	29	3	1911 ...	74	5

In connection with the disease I am glad to note the increased use of (a) Bacteriological diagnosis and (b) Diphtheria Antitoxin Serum. The former is a measure of economy, the latter a valuable means of saving life, and also when administered to contacts a useful prophylactic.

In 32 cases medical men have sent specimens for Bacteriological examination, and in 11 the results were positive, whilst in 21 they were negative. Without this means of verifying the diagnosis many of the latter would have been notified as true Diphtheria, and treated at the Hospital at considerable expense to the community.

By the Diphtheria Antitoxin order of 1910, Local Authorities are empowered to supply Antitoxin free of charge to all persons who are unable to pay, but who are not in receipt of parish relief. The question as to who is or is not appropriate is left to the doctor in attendance, and if in his opinion the circumstances warrant it, no charge is made. Arrangements are now in force by which Antitoxin can be obtained at any hour of the day or night, and notices have been recently issued to Medical Practitioners informing them that supplies are kept both at the Town Hall and at the Fire Station in Railway Street. The beneficial effects which result from the prompt application of Antitoxin are so marked, and the facilities for obtaining it so great, that there can be no excuse for neglecting this precaution, and it should be a routine measure in every case, even if followed by removal to the Isolation Hospital. It has also a very high protective value if administered to cases exposed to infection, and a quantity of a strength suitable for this purpose is kept in stock.

ENTERIC FEVER.

Of this disease 15 cases were notified. 10 were treated in Hospital, and there were 2 deaths. In 11 cases a bacteriological examination of the blood was made with the result that 5 cases gave a positive reaction, and 6, although presenting suspicious symptoms were found not to be Enteric Fever.

During 1910, 25 cases were notified, affecting 15 households. Owing to the nature of the closet accommodation in Chatham, and to the absence of a water carriage system of sewerage, special precautions respecting the emptying of privies and cesspools are taken wherever Enteric Fever occurs.

The emptying is carried out without delay, a large quantity of a solution of Perchloride of Mercury being first of all mixed with the excreta. When empty, the walls are scraped, and chloride of lime is used freely. Care is taken also to thoroughly cleanse and disinfect the surrounding ground.

At the request of the Local Government Board, on November 23rd, I made a supplementary report respecting the incidence of Enteric Fever during the year 1910, with special reference to—

- (a) The number of houses infected.
- (b) The number of cases in each house.
- (c) The nature of the closet accommodation for each invaded house.
- (d) The method of scavenging in force in the Borough—particularly whether in the process of scavenging there is any risk of the matter coming in contact with the ground around houses.
- (e) The measures taken for disinfection of Enteric Fever, and particularly for disinfection of excreta from Enteric Fever Patients in houses served by privy middens.
- (f) Whether there was any relation between the consumption of shell fish and the fever.

SMALL POX.

One case of Small Pox was reported on April 18th, and was fortunately not followed by any others. A special report was made to your Council, and a copy of the report was also sent to the Local Government Board, and to the Clerk of the County Council.

The patient was removed to the Small Pox Hospital without delay, and died after a week's stay in that Institution. The history of the case, and of the methods employed to check the further spread of the disease ought to be of special interest, both to believers and non-believers in the efficacy of vaccination.

The patient, a woman aged 44, had never been vaccinated. She had not left her home for several weeks, but on the 1st April she was visited by a nurse employed at Joyce Green Small Pox Hospital, Dartford, who stayed until April 6th, and whose garments were washed by the patient. The latter was taken ill on April 14th. The rash appeared on the 17th. She was removed to the Hospital on the 18th, and the disease being of a very severe type, she died on the 25th.

There were seven other people in the house, all of whom had been in contact with the patient, and all had been vaccinated in infancy. They were at once re-vaccinated and kept in quarantine for fourteen days, during which period they were visited daily by an Inspector, who did all the marketing for the household.

Directly the patient was removed the room was fumigated with Formalin for two hours, and every article of bedding and clothing was carefully packed and removed to the Disinfecting Station.

These measures were completely successful, and no other case occurred.

The Report of the Medical Officer to the Local Government Board for 1910—11, shows that the proportion of vaccinated children for 1909 was under 60 per cent. and for several years there has been a gradual decline in the numbers vaccinated. For some years the number of exemption certificates has been increasing, and a serious evil is being created, for which one day a penalty will be exacted in the shape of an epidemic of Small Pox with its resulting disfigurement, death, suffering and expense.

DIARRHŒA AND ENTERITIS.

From these diseases, better grouped under the name of Infective Enteritis, 58 deaths were registered, and as usual, the majority were amongst infants, 39 being under 1 year, and 11 just over 1 year of age. The disease is primarily due to two factors, one of which aids in the production of the other. The determining factor is a meteorological one, viz.: a continuous high temperature, such as we had during the summer of 1911; this being favourable to the development of putrefactive organisms which contaminate the food given to infants. Thus the method of feeding plays a very important part in the causation of Diarrhœa, and an artificially fed infant is especially liable to the disease. As pointed out in the circular issued by the Local Government Board on August 18th, a hot summer is bound to cause an excess of mortality over that occurring in cool and wet summers, but this fact only calls for special effort on the part of Sanitary Authorities to minimise this excess. The action taken in this Borough has been conducted on the following lines: personal visitation by the nurse employed under the notification of Births Act for the purpose of giving practical advice, and the distribution of leaflets giving instructions with respect to the feeding and management of children.

Your Assistant Inspector was instructed to pay special attention to the condition of the courts and alleys, and the poorer districts of the town, in order to prevent the accumulation of refuse, and to promote their general cleanliness, and also to see that stable manure was rapidly removed, accumulations of the latter being the favourite breeding ground of flies, who are very liable to carry infection to food.

The above principles have been carried out in the Borough for several years, as being the only practicable means of combating this very virulent disease. The crux of the whole problem lies in preventing the exposure of infants' food to contamination from decomposing animal matter, and therefore the more efficient the sanitation both inside and outside of dwellings, the greater will be the measure of success achieved.

ACUTE POLIO-MYELITIS AND CEREBRO-SPINAL FEVER.

The first named is better known as Infantile Paralysis, and is not difficult of recognition. In recent years it has from time to time occurred in epidemic form, being most prevalent in the summer months, and showing no special relationship to social or sanitary conditions. Both diseases have been found to be of an infective character, and in order that they may be subject to administrative control, they have been added to the list of diseases which may be made compulsorily notifiable under the Infectious Diseases Notification Act.

Cerebro-Spinal Fever has occurred frequently in this country both in an epidemic and sporadic form, and there is a possibility of confusion with Polio-myelitis, and it is recommended by the Medical Officer to the Local Government Board that they be considered together. The last named is an inflammation of the spinal cord caused by some unknown virus—the former is an inflammation of the membranes covering the brain and spinal cord associated with a specific organism. The circular issued by the Local Government Board in November last suggests that in cases of anomalous illness suggesting these diseases medical practitioners should be requested to confer with the Medical Officer of Health, that facilities for the bacteriological examination of material derived from the sick should be provided, and that certain precautionary measures of isolation and disinfection should be carried out. Your Council has, on my recommendation, decided to add these diseases to the list to be notified, and on the completion of certain formalities and notices this will be done.

HOSPITAL ACCOMMODATION.

The Isolation Hospital is situated in Rochester, and has 80 beds, with separate blocks for Scarlet Fever, Diphtheria, and Enteric Fever, together with observation wards for doubtful cases. It is for the joint use of Rochester and Chatham. Its value is fully recognised by the public, and generally speaking they show themselves anxious to get their children admitted, and so far as the recourses of the Institution allow, every case willing to go is removed. During the present epidemic of Scarlet Fever it has been impossible to admit many of the patients, and occasionally dissatisfaction has been evinced by the parents, owing to a misapprehension of the true functions of an Isolation Hospital. It exists primarily for the prevention of disease and not specially for the treatment of any individual sufferer, and therefore the mere fact of a person suffering from an infectious disease does not confer on him the right to demand admission, and when an epidemic reaches such dimensions that in order to meet the public demand the wards

become overcrowded, then its true function is overstepped, and in my judgment overcrowding of the wards of a Fever Hospital should not take place under any circumstances. Of the cases notified 60 per cent. were admitted, but these figures would have been much larger but for the fact that owing to exceptional circumstances the accommodation was insufficient.

DISINFECTION.

The effective prevention of infectious disease is largely dependent on efficient disinfection, and this is carried out as a routine measure in all cases of notified disease.

The fumigation of rooms after recovery or removal is done with Formalin Vapour, or Sulphurous Acid Gas. Bedding and clothing are removed in a specially constructed van to the Disinfecting Station, where they are subjected to the action of superheated steam in a Thresh's Steam Disinfecting Apparatus. In cases where it is found advisable to destroy infected materials adequate compensation is paid.

The Borough possesses its own Ambulance for the removal of patients, and the interior of the vehicle is fumigated and cleansed after the removal of every case. Should the entire disinfection of a house be necessary a shelter is provided for the temporarily homeless family. Details respecting the number of articles and houses disinfected appear in the report of the Inspector of Nuisances, which is annexed.

SCHOOLS AND INFECTIOUS DISEASE.

Your Medical Officer of Health is also School Medical Officer, and so is in a double sense specially concerned with the hygiene of schools. The sanitary condition of the Elementary Schools is generally satisfactory, and is fully reported upon in the Annual Report of the School Medical Officer.

Schools play a very important part in connection with infectious disease, for not only is this class of disease liable to be propagated by contact at schools, but the schools form very convenient centres for controlling the spread of disease. There has been no necessity to resort to School Closure during the year, and so far as control of disease is concerned its effect is open to doubt, because opportunities for infection occur both in the homes of the children and in their uncontrolled association in the streets.

The principle of exclusion of an infected child and of all children from the same house, and others who have been in contact with the case is the one that I find the most serviceable.

On the occurrence of cases of notifiable infectious disease, notice is sent to the Head Teacher of the School, who excludes all children liable to be infected, for a definite period.

In order that teachers may themselves be in a position to recognise the early symptoms of various infectious diseases, and also the appearances presented by children who have lately passed through the acute stages, they are supplied with a schedule showing —

- (a) Mode of onset
- (b) Incubation period.
- (c) Day of appearance of rash
- (d) Period of isolation.

(1) for those attacked, (2) for those exposed to attack, in the case of all the commoner infectious diseases.

F.—FACTORY AND WORKSHOP ACT, 1907.

A *Factory* is defined as a place where mechanical power is used for manufacturing purposes.

A *Workshop* includes premises (not being factories) in which manual labour is exercised, and over which the employer of the persons working there has the right of control.

A *Workplace* is a place where work is done permanently, and where people assemble together to do work permanently of some kind or other.

Under Section 132 of the above Act it is the duty of the Medical Officer of Health of every District Council to report specifically on the administration of this Act in Workshops and Workplaces, and to include his observations thereon in his Annual Report. A Table is issued by the Home Office, containing such particulars as lend themselves to statistical treatment, which has been filled in and appended to this report.

The chief points to be noted are in connection with the sanitary administration of the Factory and Workshops Act, so far as its provisions are concerned with the duties of District Councils.

They may be summarised as follows :—

1. Sanitary condition of Workshops and Workplaces, including :—

- (a) Cleanliness.
- (b) Air space.
- (c) Ventilation.
- (d) Drainage of floors where wet processes are carried on.
- (e) Provision of suitable and sufficient sanitary conveniences.

2. Special sanitary provisions for Bakehouses.

3. The prevention of home work being carried on in dwellings which are injurious or dangerous to the health of the workers through overcrowding, want of ventilation, or other sanitary defects, or in dwellings in which notifiable infectious disease exists.

4. The keeping of lists of outworkers in certain branches of industry, which are furnished by employers, and the transmission of the name and place of any such outworker who does not reside in the district, to the Council of the district in which he resides.

5. Keeping a Register of Workshops.

In the Home Office table which is attached will be found particulars of a general nature respecting the number of inspections made and the defects found and remedied.

The subjoined particulars respecting various industries carried on in the Borough are supplementary to those recorded in the Home Office Table.

The total number of Workshops registered at the end of the year is 380, including—

Tenement Workshops	None
Retail Bakehouses	25
Domestic Workshops	67
Workshop Laundries	8
Other Workshops.....	280

In addition there are 3 Factory Laundries.

The number of Non-textile Factories is 31, of Workshops employing men only 163, and of Workplaces 96.

The *Workshops* comprises the following trades:—Bootmakers, 6; Brass Finishers and Pewterers, 1; Blind Makers, 2; Clay Pipe Maker, 1; Coopers, 2; Cycle Works, 4; Coach Builders and Wheelwrights, 8; Cabinet Makers, 10; Carpenters and Joiners, 20; Hoop Makers, 2; Masons, 2; Modellers, 1; Ornamental Masons, 2; Polishers, 8; Painters, 12; Picture Frame Makers, 12; Plumbers, 7; Saddlers, 9; Sweet Makers, 4; Smiths, 6; Tailors, 28; Tin Smiths, 6; Upholsterers, 8; Undertakers, 2.

NON-TEXTILE FACTORIES.

Bakehouses, 2; Bootmakers, 2; Electrical Works, 1; Engineering, 1; Flour, 2; Joinery, 5; Laundries, 3; Mineral Water Works, 5; Printing, 6; Soap, 1; Sausage Making, 2; Tobacco, 1.

WORK PLACES.

Bottling 5; Bootmaking 30; Gate Making 4; Wharves 8; Stables 15; Hair Cutting 34.

Notices issued respecting defects 21.

DEFECTS REMEDIED.

Want of Cleanliness 7; Want of Ventilation 1; Overcrowding 2; Want of separate Sanitary Accommodation 1.

OUTWORKERS.

There are a large number of Outworkers in the Borough. Most of them are females, employed in the manufacture of wearing apparel, and though their work may mean a small addition to the family income, I am afraid the gain is counteracted by a neglect of home duties in many instances. By far the largest number of Outworkers are wives of Royal Marines. Until 1911, we were not supplied with the list of Marine Outworkers, but after an interview with the Colonel Commandant at the end of 1910, at which the importance of doing this was pointed out, the question was submitted to the proper authorities for approval, and was agreed to.

The number of employers, including the above, who submitted lists of Outworkers was 7, representing 653 people during the first half of the year, and 592 during the second half. 82 of these Outworkers resided out of the district.

During the year 461 visits were paid to the homes, exclusive of the Royal Marine Outworkers. No notices were served in respect of unwholesome premises, but in 15 instances work was prohibited on account of infectious disease.

During the year 40 inspections were made of factories, 324 of workshops, and 45 of work places.

18 notifications of defects were received from H.M. Inspector of Factories.

The following return gives particulars of various trades in which women and young persons are employed:—

	Women.	Young Persons.
Bookbinding	14	4
Clothing	320	70
Dressmaking	230	97
Fancy Needlework.....	1	1
Laundry	80	9
Millinery.....	52	56
Rag Sorting	9	0
Shirt Making	28	3

In the Act a young person is defined as one who is over 14 and under 18 years of age.

The Special Sections of the Act dealing with the question of Sanitary Accommodation are inoperative in this district, and all offences are dealt with under Section 22 Public Health Amendment Act, 1890. Under this Section the Borough Surveyor is the official specially charged with dealing with the provisions of the Section in regard to sufficiency and suitability.

BAKEHOUSES.

The number on the register is 27. There are 2 Factory Bakehouses, and 10 underground Bakehouses. The number of visits paid was 97. In 5 instances neglect of limewashing was reported, and notices were served.

The Special Sanitary Regulations for Bakehouses are set out in Sections 97 to 102 of the Factory and Workshop Act. Under these regulations closets must not communicate with, nor must there be any drains opening into a bakehouse, and the cistern supplying water to a Bakehouse must be separate and distinct from the W.C. cistern. The inside walls and ceilings of Bakehouses must be limewashed or painted with oil and varnished, and the limewashing and cleansing of paint must be done every six months. No sleeping place is permitted on the same floor as a Bakehouse, unless constructed according to the requirements of the Act.

The underground Bakehouses were all in use before the passing of the Act, but it was enjoined in Section 101 that no underground Bakehouses should be used after January, 1904, unless certain stipulations as to light, ventilation, and construction, were carried out.

The wide scope and importance of the various matters which affect the sanitary state of the Borough are increasingly evident, and the constant and unremitting attention of officials concerned in their administration is a matter of necessity. There is no department of Municipal work so important as the preservation of the Public Health, and in their endeavour to realize this the Council has always shown a progressive and enlightened spirit. In devoting the whole of my time to the service of the Borough, I am greatly encouraged by the knowledge that in the future, as in the past, I can always rely on the support and help of your Sanitary Committee, to whom my thanks are due for their very courteous reception and consideration of the various reports and recommendations which I have had the honour to bring before them.

My thanks are also due to Mr. Coles Finch for particulars of the rainfall during the year.

I am, Gentlemen,

Your obedient servant,

J. HOLROYDE, F.R.C.S.E., D.P.H.

Chatham,

February 16th, 1912.

Appended are Tables I., II., III., and IV., issued by the Local Government Board.

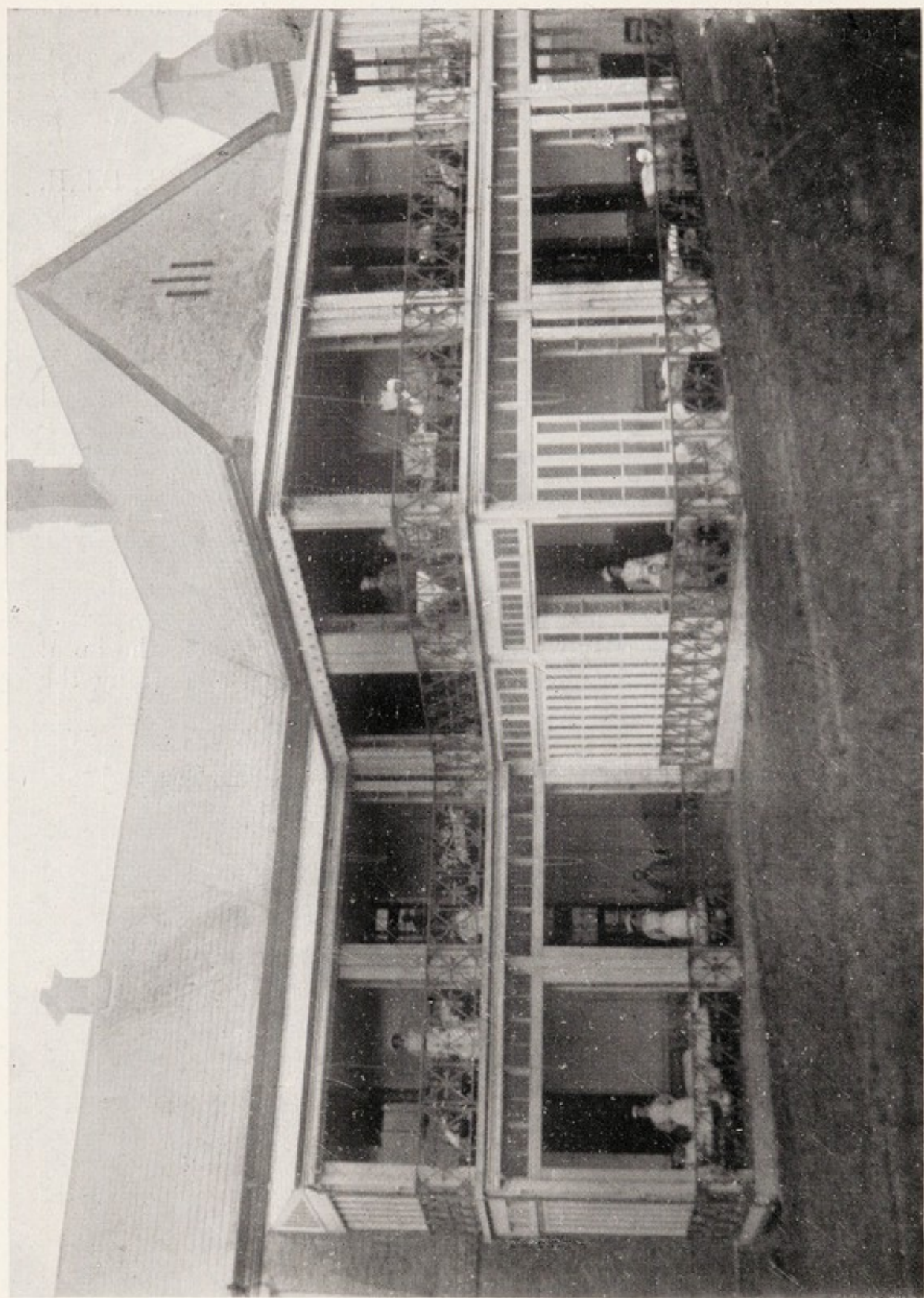
Home Office Table for returns under the Factory and Workshop Act.

Phthisis, Sanatorium and Hospital Accommodation.

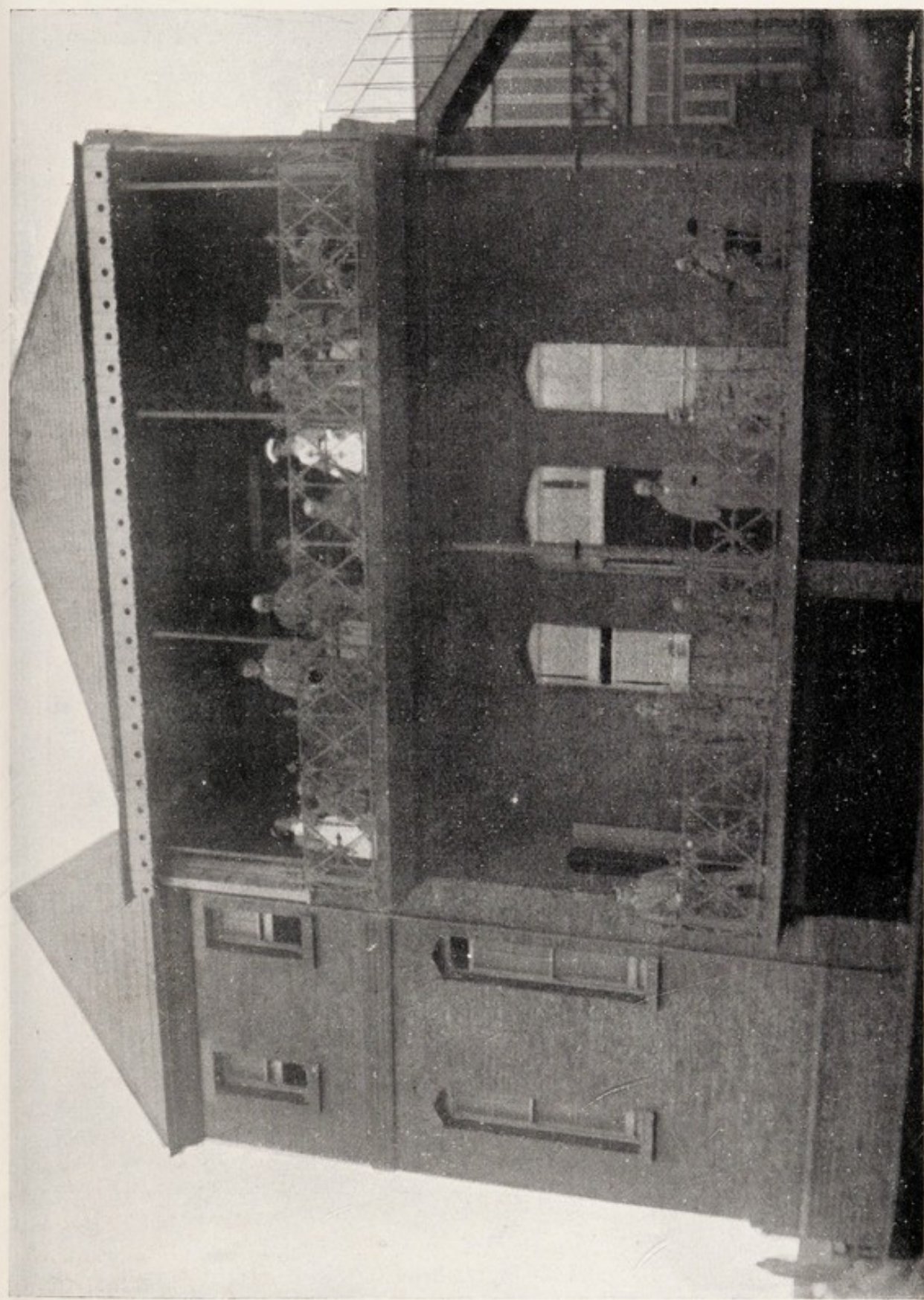
Statistics of Rainfall.

N.B.—In conformity with a recent memorandum of the Local Government Board, a summary of the work carried out by the Inspector of Nuisances is embodied in the Report.





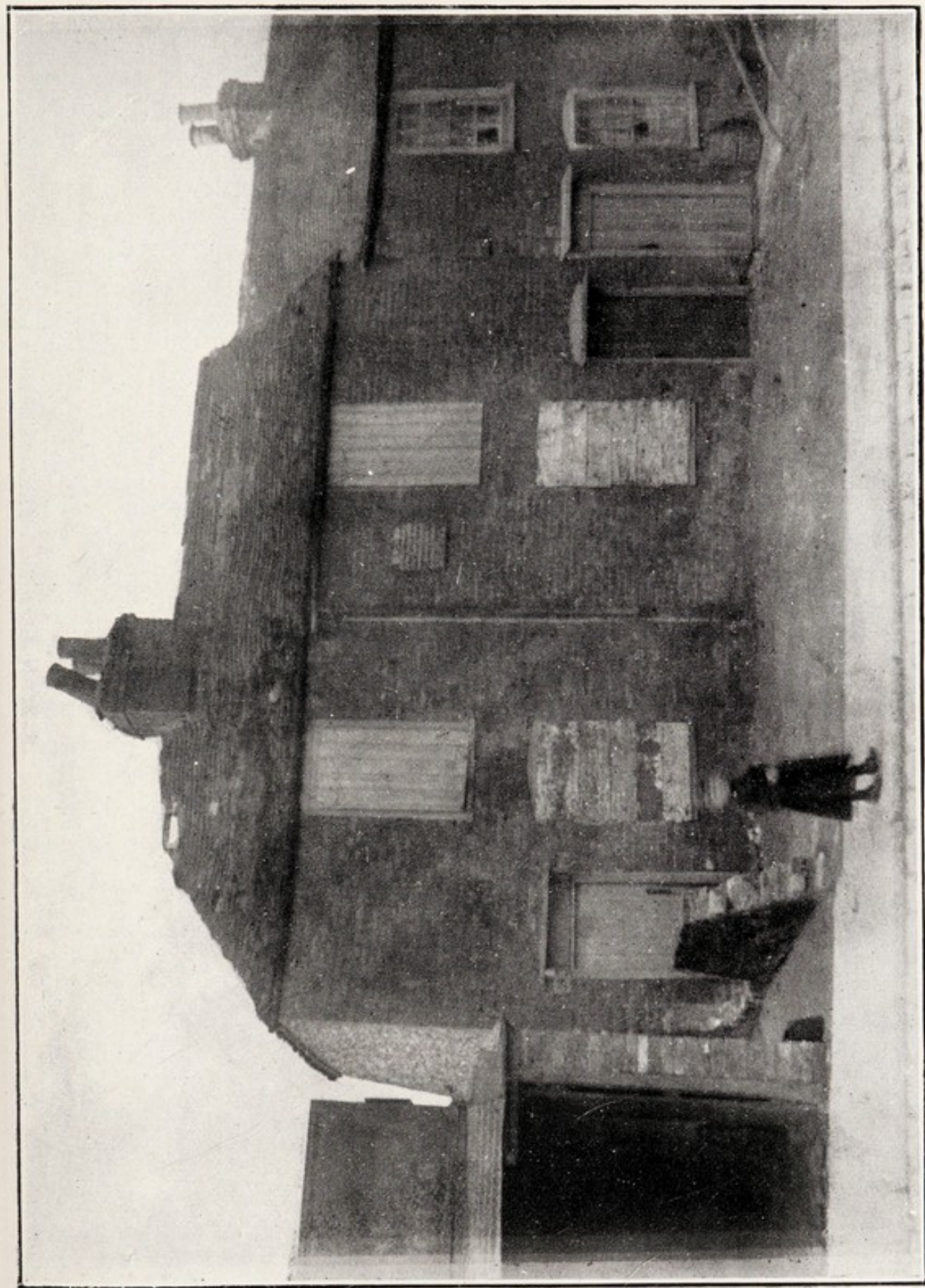
THE MEDWAY UNION INFIRMARY—VERANDAH FOR TREATMENT OF TUBERCULOSIS.



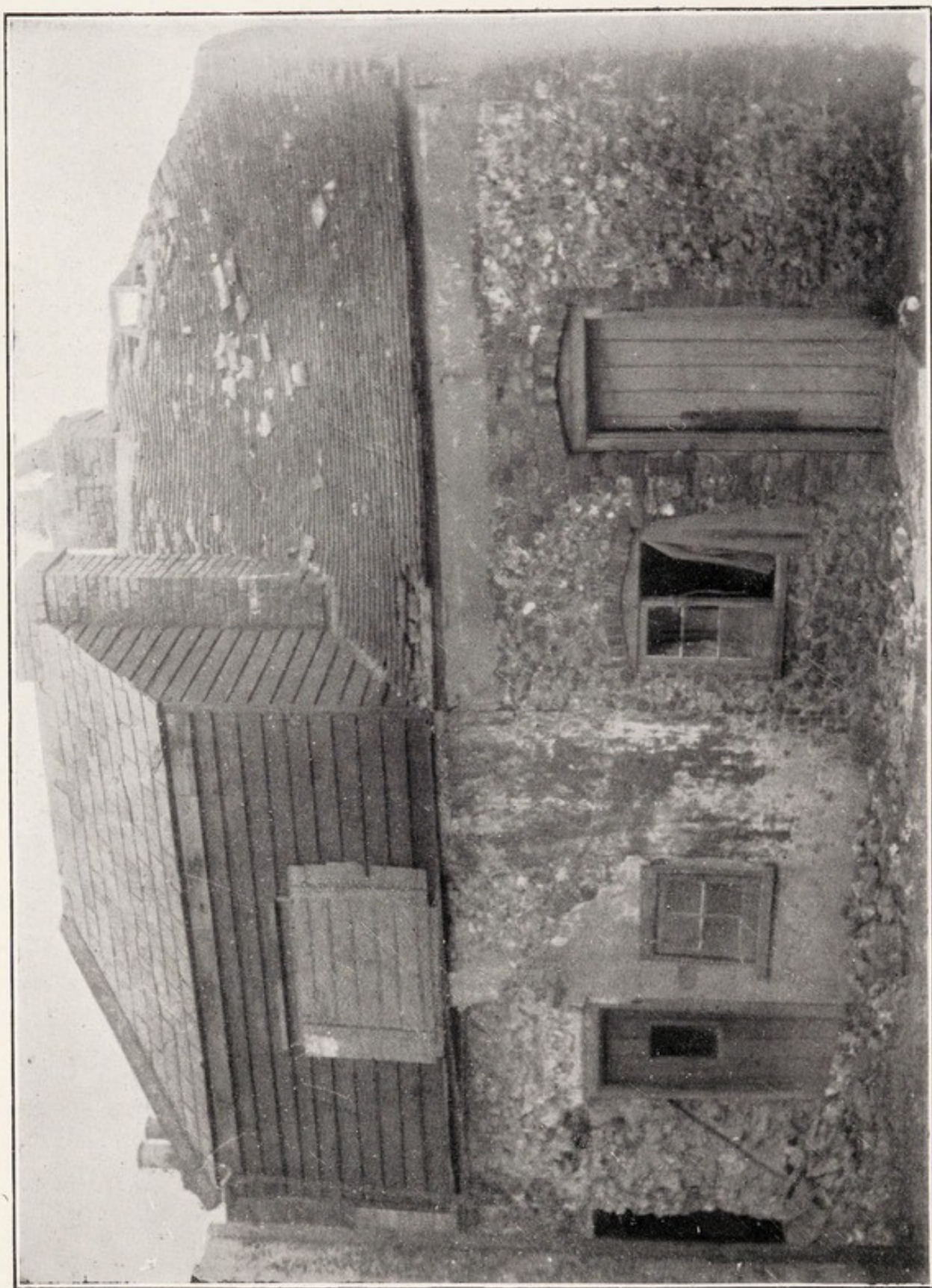
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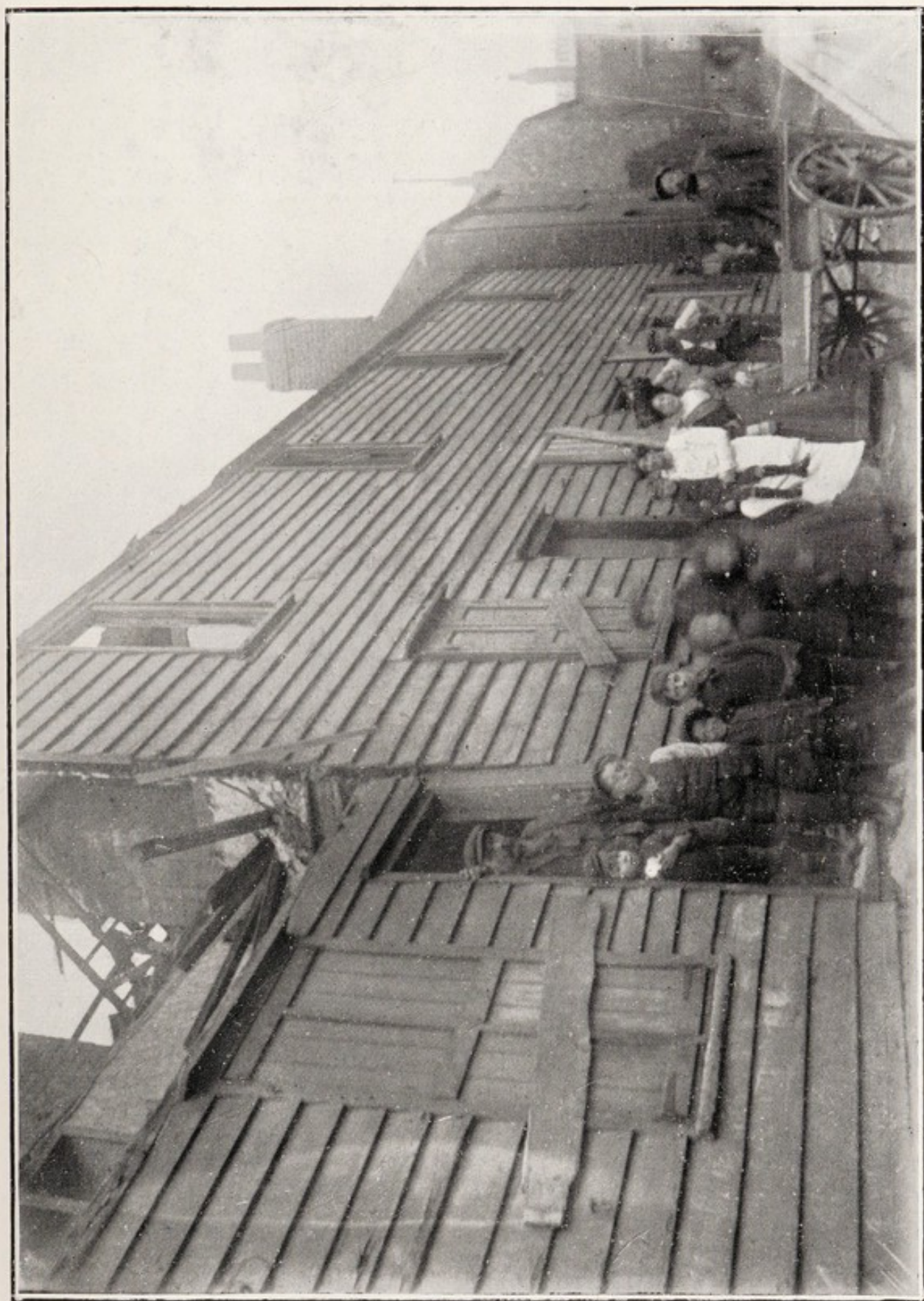
CHATHAM HILL—NOW DEMOLISHED.



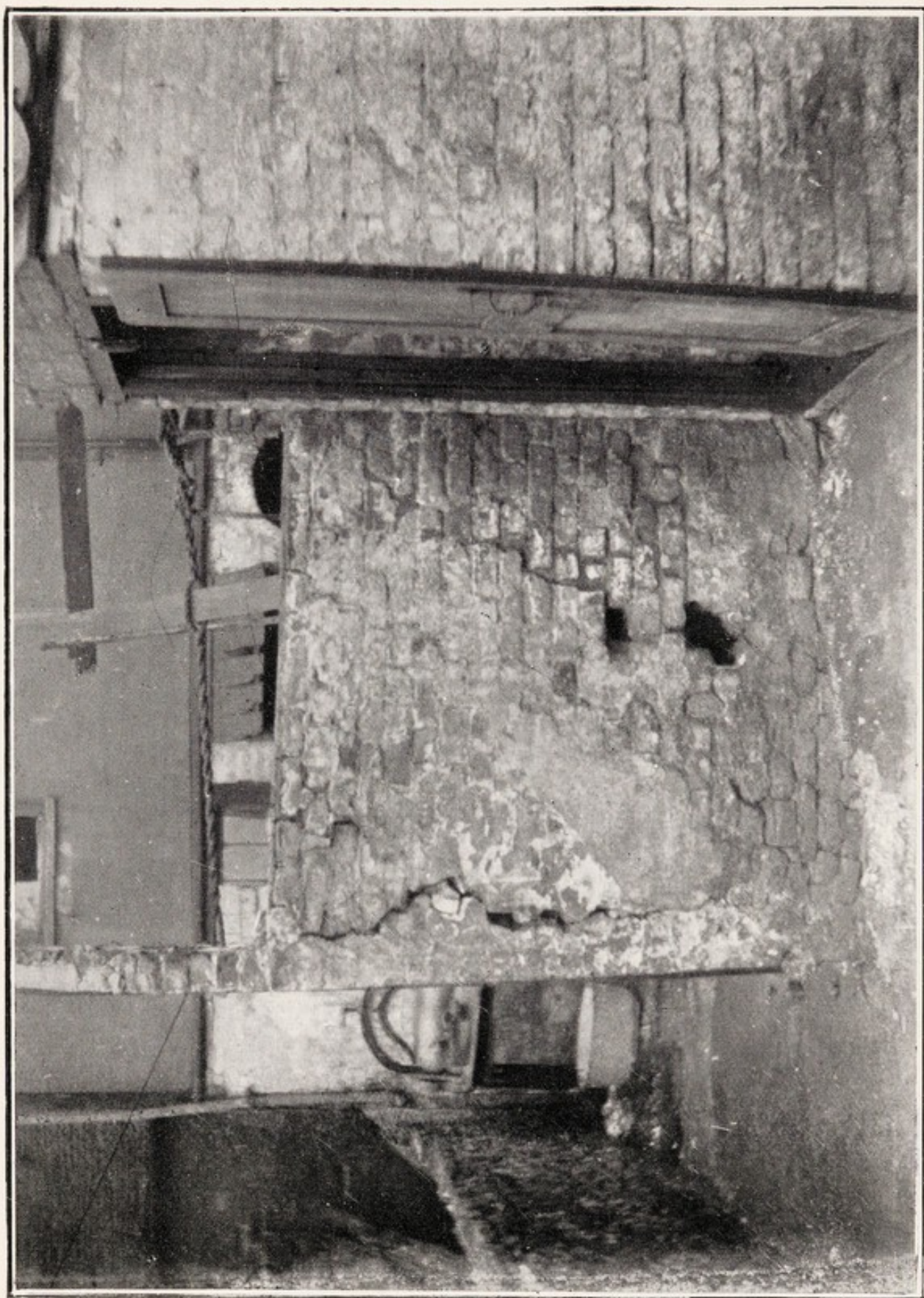
CHATHAM HILL—NOW DEMOLISHED.



CHATHAM HILL (BACK)—NOW DEMOLISHED.



MILL LANE—NOW DEMOLISHED.



BACK OF 8 QUEEN STREET.

TABLE I.

CHATHAM DISTRICT.*Vital Statistics of Whole District during 1911 and previous Years.*

YEAR.	Popula- tion estimated to Middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.			
		Un- corrected Number.	Nett.		Number.	Rate.	of Non- residents registered in the District.	of Resi- dents not registered in the District.	Under 1 year of age.		At all ages.	
			Number.	Rate.					Number.	Rate per 1,000 Nett Births.	Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1906	39655	1107	1107	27.9	593	14.9	58	25	153	138	560	14.1
1907	40174	1100	1100	27.3	591	14.6	59	49	136	124	581	14.4
1908	40693	1038	1038	25.5	578	14.2	62	42	132	127	558	13.7
1909	41212	1093	1093	26.5	538	13.	63	42	117	107	517	12.5
1910	41731	1052	1052	25.2	552	13.2	83	41	96	92	510	12.2
1911	42250	1066	1114	26.3	668	15.8	76	78	142	127	670	15.8

Area of District in acres (exclusive of area covered by water).	4443.298	Total Population at all ages, 42,250
		Number of inhabited houses, 9,562.
		Average number of persons per house, 4.4
		At Census of 1911.

TABLE II.

CHATHAM DISTRICT.*Cases of Infectious Disease notified during the Year 1911.*

Notifiable Disease	Cases notified in Whole District.							Total Cases Notified in each Locality.				Total Cases removed to Hospital.
	At all ages.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.	65 & upwards.	ST. MARY'S WARD.	LUTON WARD.	ST. JOHN'S WARD.	MEDWAY WORKHOUSE	
Small-pox	1					1			1			1
Diphtheria (including Membranous croup)	74	25	42	3	2	2		16	26	32		59
Erysipelas	32		2	3	12	13	2	7	10	9	6	1
Scarlet Fever	145	35	96	12	1	1		25	73	47		88
Enteric Fever	15	1	3	8	2	1		5	2	4	4	10
Phthisis -												
Under Tuberculosis Regulations, 1908	23			2	18	3		2	1	2	18	
Under Tuberculosis Regulations, 1911	29	2	5	7	13	2		6	17	6		
Others	30	2	2	7	16	3		15	11	4		
Totals	349	65	150	42	64	26	2	76	141	104	28	159

Isolation Hospital—

Total available beds 104.

Name and Situation : Joint II Hospital, Rochester.

Number of Diseases that can be concurrently treated 4.

TABLE III. **CHATHAM DISTRICT.***Causes of, and Ages at Death during the Year 1911.*

Causes of Death.		Nett deaths at the Subjoined Ages of Residents whether occurring within or without the district.									Total Deaths wh'th'r of R'sid'nts or Non-R'sid'nts in Instns. in district
		All Ages	Und'r 1.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards.	
All Causes	Certified	651	136	47	38	37	29	88	111	165	
	Uncertified ..	19	6	1				4	3	5	
<hr/>											
Enteric fever.....		2					1		1		1
Small Pox		1							1		
Measles		78	10	24	26	18					
Scarlet Fever		3			1	1	1				
Whooping cough.....		2	1	1							
Diphtheria and Croup		5			2	2	1				
Influenza		1				1					1
Erysipelas		1									1
Lead Poisoning		1									
Phthisis (Pulmonary Tuberculosis)		64	1	1	3	7	16	27	8	1	22
Tuberculous Meningitis ..		1						1			
Other Tuberculous Diseases		8	1	1	1	1		3	1		1
Rheumatic Fever.....		2						2			
Cancer, malignant disease		34						5	18	11	16
Bronchitis		34	5		1		1	2	3	22	6
Broncho-Pneumonia		14	7	4	1			1		1	3
Pneumonia (all other forms)		22	1	2		2	1	4	6	6	6
Other diseases of Respiratory organs		3						2	1		1
Diarrhœa and Enteritis ..		59	39	11	1	2			3	3	2
Appendicitis and Typhlitis		2					1	1			
Alcoholism.....		1						1			
Cirrhosis of Liver		9						1	7	1	1
Nephritis and Bright's Disease		14				2		1	8	3	3
Accidents and diseases of Pregnancy & Parturition		5	1				2	2			
Congenital Debility and Malformation, including Premature Birth		55	55								11
Violent Deaths, excluding Suicide		16	3	1				7	2	3	3
Suicides		3					1		1	1	1
Heart disease		108	1				2	19	31	55	44
Other defined Diseases		80	17	3	2	1	2	13	18	24	26
Diseases ill-defined or unknown		44							4	40	32
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		670	142	48	38	37	29	92	114	170	181

TABLE IV. **CHATHAM BOROUGH.***Infantile Mortality during the Year, 1911.*

Nett Deaths from stated Causes at various Ages under One Year of Age.

Cause of Death.	Under 1 Week.	1 to 2 Weeks.	2 to 3 Weeks.	3 to 4 Weeks.	Total under 1 Month.	1 to 3 Months.	3 to 6 Months.	6 to 9 Months.	9 to 12 Months.	Total Deaths under 1 Year.
All Causes	27	4	7	4	42	22	25	20	24	133
{ Certified	2	1			3	1			2	6
{ Uncertified										
Chicken-pox						1				1
Measles							2	1	7	10
Whooping Cough									1	1
Diarrhoea			1	1	2	3	2	3		10
Enteritis		1			1	5	10	9	4	29
Abdominal Tuberculosis (b)							1			1
Other Tuberculous Diseases									1	1
Congenital Malformations (c)	3	3			6	1			1	8
Premature Birth	18		2	2	22	4				26
Atrophy, Debility, and Marasmus	5		2	1	8	3	6	3	1	21
Injury at Birth	1				1					1
Syphilis						3	1		1	5
Rickets									1	1
Meningitis (not Tuberculous)									1	1
Convulsions	2				2	1		1	1	5
Gastritis						1	1			2
Bronchitis			1		1		1	1	2	5
Pneumonia (all forms)							1	2	5	8
Suffocation, overlying		1			1	2				3
Other causes	1		1		2	1				3
	30	5	7	4	46	25	25	20	26	142

Nett Births in the year :—Legitimate, 1080; Illegitimate, 34.

Nett Deaths in the year :—Legitimate Infants, 119; Illegitimate, 23.

Chatham Borough.

PHTHISIS: SANATORIUM AND HOSPITAL ACCOMMODATION.

Classes for which accommodation is provided.	By whom provided.	Where situated.	Total number of Beds.	How are patients selected?	Are patients under the care of a resident Medical Officer?	What charge, if any, is made for the use of Beds?	Do the Sanitary Authority use— (1) their Isolation Hospital or (2) their Small-pox Hospital for cases of Phthisis?	Do the Sanitary Authority reserve Beds in any Phthisis Sanatorium: If so, how many, and in what Sanatorium?	Do the Sanitary Authority provide portable open-air Shelters or Tents?
(a) Early cases (b) Intermediate cases (c) Advanced cases	Medway Guardians.	Medway Workhouse Infirmary.	30 Male 6 Female } 36	Reported by Relieving Officers.	Yes.	No charge.	No.	No.	No.

N.B.—There is no separate accommodation for the various stages, but the male patients are grouped as far as possible.

1.—Inspection.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories (including Factory Laundries)	40	5	
Workshops (including Workshop Laundries) ..	324	16	
Workplaces (other than Outworkers' premises included in Part 3 of this Report)	45	0	
Total	409	21	

Particulars.	No. of Defects			Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
Nuisances under the Public Health Acts:—				
Want of cleanliness	7	7		
Want of ventilation	1	1		
Overcrowding	2	2		
Want of Drainage of floors				
Other Nuisances	10	9		
Sanitary Accommodation { insufficient				
{ unsuitable or defective	4	3		
{ not separate for sexes	1	1		
Offences under the Factory and Workshop Act:—				
Illegal occupation of underground bakehouse..	0	0		
Breach of special sanitary requirements for bakehouses	0	0		
Other offences (excluding offences relating to outwork which are included in Part 3 of this Report)	0	0		
Total	25	23		

3.—Homework.

Nature of Work.	Outworkers' Lists. Lists received from employers.						Outwork in Infected Premises.	
	Sending twice in year.			Sending once in year.			Instances.	Orders made.
	Lists.	Contractors.	Workmen.	Lists.	Contractors.	Workmen.		
Wearing Apparel— (1) making, &c	8	2	1195	3		30	15	15
Total	8	2	1195	3		30	15	15

4.—Registered Workshops.

Workshops on the Register at the end of the Year.								Number.
Tenement Workshops .. .. .	..	..	..	..	..	..	..	0
Workshop Bakehouses .. .. .	..	..	..	..	..	..	..	25
Domestic Workshops .. .. .	..	..	..	..	..	..	..	67
Laundries (Workshop) .. .. .	..	..	..	..	..	..	..	8
Other Workshops .. .. .	..	..	..	..	..	..	..	280
Total number of Workshops on Register ..								380

5.—Other Matters.

Class.	Number.
Matters notified to H.M. Inspector of Factories:—	
Failure to affix Abstract of the Factory and Workshop Act ..	0
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act:—	
Notified by H.M. Inspector	18
Reports (of action taken) sent to H.M. Inspector ..	10
Underground Bakehouses:—	
Certificates granted during the year	0
In use at the end of the year	6

RAINFALL DURING 1911.

Taken at Luton Waterworks, Chatham, by Mr. Coles Finch.

Months.	Total depth in inches.
January	1·05
February	1·10
March	2·46
April	2·04
May	·87
June	1·83
July	·38
August	·95
September	1·24
October	4·60
November	4·51
December	4·41
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Total	25·44 inches.